



GOVERNMENT OF INDIA  
MINISTRY OF CHEMICALS & FERTILIZERS  
DEPARTMENT OF CHEMICALS & PETROCHEMICALS  
STATISTICS AND MONITORING DIVISION  
JANPATH BHAWAN, NEW DELHI

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Government of India  
Ministry of Chemicals and Fertilizers  
Department of Chemicals and Petrochemicals  
Statistics and Monitoring Division

Foreword

The publication “Chemicals & Petrochemicals Statistics at a Glance” is brought out by Statistics and Monitoring Division of the Department of Chemicals & petrochemicals from 2007. The publication contains the latest available information on the chemical & petrochemical sector in respect of India and world as well. This has been made possible with inputs by various Ministries and Departments of the Government of India and concerned manufacturing units in Chemical and Petrochemical sectors.

2. We express our deep sense of gratitude to all the data providers to the Ministry and record our appreciation for the efforts put in by the officers of the Statistics and Monitoring Division viz., Shri Dinesh Kumar, Director; Shri A. K. Singh, Research Officer; Shri Darshan Singh, Senior Investigator and Shri Bharat Kumar, Junior Investigator.

3. We hope the publication ‘Chemicals & Petrochemicals Statistics at a Glance: 2015’ will prove useful to all stakeholders and welcome suggestions for improvement.

A.K.Mathur  
Deputy Director General

New Delhi  
December 2015

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| Acronyms |                                    |
|----------|------------------------------------|
| CAN      | Acrylonitrile                      |
| AF       | Acrylic Fibre (including Dry Spun) |
| CARG     | Compound Annual Growth Rate        |
| DMT      | Dimethyl Terephthalate             |
| EO       | Ethylene Oxide                     |
| EPDM     | Ethyl Propylene Dimers             |
| EVA      | Ethyl Vinyl Acetate                |
| EX-PS    | Expandable Polystyrene             |
| FDI      | Foreign Direct Investment          |
| HDPE     | High Density Polyethylene          |
| IIP      | Index of Industrial Production     |
| KTPA     | Thousand Tonnes Per Annum          |
| LAB      | Linear Alkyl Benzene               |
| LDPE     | Low Density Polyethylene           |
| LLDPE    | Linear Low Density Polyethylene    |
| MEG      | Mono Ethylene Glycol               |
| MEK      | Methyl Ethyl Ketone                |
| MMA      | Methyl Methacrylate                |
| MT       | Metric Tonne                       |
| MMSCM    | Million Standard Cubic Meters      |
| NBR      | Nitrile Butadiene Rubber           |
| NFY      | Nylon Filament Yarn                |
| NIY      | Nylon Industrial Yarn              |
| ONCB     | Ortho Nitro Chloro Benzene         |
| PAN      | Phthalic Anhydride                 |
| PBR      | Poly Butadiene Rubber              |
| PBT      | Polybutylene Terephthalate         |
| PET      | Polyethylene terephthalate         |
| PIB      | Polyisobutylene                    |
| PFY      | Polyester Filament Yarn            |
| PG       | Propylene Glycol                   |
| PMMA     | Polymethyl Methacrylate            |
| PNCB     | Para Nitro Chloro Benzene          |
| PO       | Propylene Oxide                    |
| PP       | Polypropylene                      |
| PPFY     | Polypropylene Filament Yarn        |
| PPSF     | Polypropylene Staple Fibre         |
| PS       | Polystyrene                        |
| PSF      | Polyester Staple Fibre             |
| PSFF     | Polyester Staple Fibrefil          |
| PTA      | Purified Terephthalic Acid         |
| PVC      | Poly Vinyl Chloride                |
| SAN      | Styrene Acrylonitrile              |
| SBR      | Styrene Butadiene Rubber           |
| VAM      | Vinyl Acetate Monomer              |
| WPI      | Wholesale Price Index              |

### **Coverage, Definitions & Limitations**

The product coverage, definitions and sources used in the publication are given as under:

#### **1. Major Chemicals**

The following major chemicals have been covered:

- (i) Alkali Chemicals (3) : Soda Ash, Caustic Soda and Liquid Chlorine
- (ii) Inorganic Chemicals (9) : Aluminium Fluoride, Calcium Carbide, Carbon Black, Potassium Chlorate, Sodium Chlorate, Titanium Dioxide and Red Phosphorous Hydrogen Peroxide, and Calcium Carbonate
- (iii) Organic Chemicals (21) : Acetic Acid, Acetic Anhydride, Acetone, Phenol, Methanol, Formaldehyde, Nitrobenzene, Citric Acid, Malefic Anhydride, Pentaerythritol, Aniline, Chloro Methanes, ONCB, PNCB, MEK, Acetaldehyde, Ethanolamines, Ethyl Acetate, Menthol and Ortho-Nitro Toluene, isobutyl benzene
- (iv) Pesticides (Technical Grade) (57) : D.D.T., Malathion, Parathion(Methyl), Dimethoate, D.D.V.P., Quinalphos, Monocrotophos, Phosphamidon, Phorate, Ethion, Endosulphan, Fenvalerate, Cypermethrin, Anilophos, Acephate, Chlorpyrifos, Phosalone, Metasystox, Abate, Fenthion, Triazophos, Lindane, Temephos, Deltamethrin, Alphamethrin, Profenofos Technical, Pretilachlor Technical, Lambda Cyhalothrin, Phenthoate, Permethrin Tech, Imidacaloprid Tech, Captan & Captafol, Ziram(Thio Barbamate), Carbendzim(Bavistin), Calixin, Mancozab, Copper-Oxychloride, Hexaconazole, Metconazole, 2, 4-D, Butachlor, Ethofumesate Technical, Thiamethoxam Technical, Pendimethalin, Metribuzin, Triclopyr Acid Tech, Isoproturon, Basalin, Glyphosate, Paraquat, Diuron, Atrazin, Fluchloralin, Zinc Phosphide, Aluminium Phosphide, Methyl Bromide, Dicofof
- (v) Dyes and Pigments (18) : Azo Dyes, Acid Direct Dyes (other than AZO), Basic Dyes, Disperse Dyes, Oil soluble (Solvent Dyes), Fast Colour Bases, Ingrain Dyes, Solubilised Vat Dyes, Optical Whitening Agents, Organic Pigments, Inorganic Pigments, Pigment Emulsion, Reactive Dyes, Sulphur Dyes, Vat Dyes, Food Colours, Naphthols and Other Dyes

## 2. Major Petrochemicals

The following major petrochemicals have been covered:

### A. Basic major petrochemicals

- (1) Synthetic Fibres (9) : Acrylic Fibre, Polyester Staple Fibrefill, Nylon Filament Yarn, Nylon Industrial Yarn/Tyre Cord, Polyester Filament Yarn, Polyester Staple Fibre, Polypropylene Filament Yarn, Polypropylene Staple Fibre, Polyester Industrial Yarn.
- (2) Polymers (8) : Low Density Polyethylene, High Density Polyethylene, Polystyrene, Polypropylene (Inc. Co-Polymer), Expandable Polystyrene, Poly Vinyl Chloride, Linear Low Density Polyethylene, PVC Compound. )
- (3) Synthetic Rubber (Elastomers) (6) : Styrene Butadiene Rubber (SBR), Poly Butadiene Rubber (PBR) and Nitrile Butadiene Rubber (NBR), Ethyl Propylene Dimers (EPDM), Ethyl Vinyl Acetate (EVA), Butyl Rubber
- (4) Synthetic Detergent Intermediates (2) : Linear Alkyl Benzene (LAB), Ethylene Oxide (EO)
- (5) Performance Plastics (7) : Acrylonitrile Butadiene Styrene (ABS) Resin, Nylon-6, Nylon 6,6, Polymethyl Methacrylate (PMMA) and Styrene Acrylonitrile (SAN) Resin, Polytetrafluoroethylene (PTFE), Polyester Chips/PET Chips.

### B. Intermediates

- (1) Fibre Intermediates (5) : Acrylonitrile, Caprolactum, Mono Ethylene Glycol (MEG), Dimethyl Terephthalate (DMT) and Purified Terephthalic Acid (PTA)
- (2) Building Blocks
  - (i) Olefins (3) : Ethylene, Propylene and Butadiene
  - (ii) Aromatics (5) : Benzene, Toluene, Orthoxylene, Paraxylene and Mixed Xylene

### C. Other Petro-based Chemicals (33)

- : Diethylene Glycol, Diacetone Alcohol, Ethylene Dichloride, Butanol, Oxo Alcohol, 2-Ethyl Hexanol, Vinyl Chloride Monomer, Epichlorohydrine, Iso Butylene, Metaxylene, Methyl Isobutyl Ketone, PBT, PET, PIB, Polycarbonate, Propylene Oxide, Propylene Glycol, Polyvinyl Acetate Resin, Unsaturated Polyester Resin, Methyl Methacrylate, Iso-Butanol, Ethyl Benzene, C4-Raffinate, Cellulose Acetate Butyrate, Cellulose Acetate Sheet, Cellulose Nitrate Sheet, Melamine Moulding Powder, Polyacetal Resin, Phthalic Anhydride, Styrene, Vinyl Acetate Monomer, Isopropanol, Polyol.

### 3. Sources

The major sources of data presented in this publication are:

|                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (i) Production & Installed capacities                  | Production of major chemicals and petrochemicals and their installed capacities have been aggregated based on monthly returns received directly by the Department of Chemicals & Petrochemicals from the manufacturers under large and medium scale.                                                                                                                                                                                                                                                                                                                                                                                                                   |
| (ii) Imports & Exports                                 | Directorate General of Commercial Intelligence & Statistics, Ministry of Commerce & Industry, Kolkata.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| (iii) FDI                                              | Ministry of Commerce & Industry, Department of Industrial Policy & Promotion.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| (iv) Index of Industrial Production                    | Ministry of Statistics & Programme Implementation, Central Statistics Office (CSO), New Delhi.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| (v) Wholesale Price Index                              | Ministry of Commerce & Industry, New Delhi.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| (vi) Chemical Industry (Broad definition)              | The Chemical industry includes organic chemicals, inorganic chemicals, pharmaceuticals products, fertilizers, tanning or dyeing extracts, dyes pigments, paints and varnishes, putty and other mastics inks, essential oils, perfumery cosmetic, soap, organic surface, active agents, washing, lubricating, artificial waxes, dental waxes, polishing, albuminoidal substance, modified starches, glues, enzymes, explosive, pyrotechnic products, beverages, spirits and vinegar, matches, pyrophoric alloys, photographic or cinematographic goods, miscellaneous chemical products, petrochemicals, plastics synthetic, rubber, man-made filaments, manmade fiber. |
| (vii) Chemicals and Petrochemicals (Narrow definition) | The Chemicals and Petrochemical products that are monitored by the Department of Chemicals & Petrochemicals are selected major products and the list of these products are given in the tables 3 & 8 respectively. Unless contrary is mentioned, the terms 'Major Chemicals' and 'Major Petrochemicals' refer to the products or groups thereof as enumerated in the tables 3 & 8.                                                                                                                                                                                                                                                                                     |

### 4. Limitations:

The data presented in this publication heavily draws on the narrow definition of chemicals and petrochemicals. The choice of adopting this narrow definition is guided by the availability of authentic detailed data with the Department of Chemicals and Petrochemicals.

5. Disclaimer :

Though due care has been taken in compiling this Publication, the possibility of errors and omissions remains. Users of the information contained in this Publication are urged to verify it independently. The Department of Chemicals and Petrochemicals will not bear any liability for any loss or injury arising out of the use of the information contained in this.

*Section – I*

*An Overview  
of Chemical  
and  
Petrochemical  
Sectors*



## **An Overview of Chemical and Petrochemical Sectors**

The chemical industry is the main stay of industrial and agricultural development of the country and provides building blocks for several downstream industries, such as textiles, papers, paints, soaps, detergents, pharmaceuticals, varnish etc. It is one of the most diversified of all industrial sectors covering thousands of commercial products. This Industry occupies a pivotal position in meeting basic needs and improving quality of life. Petrochemicals, which comprise of plastic and host of other chemicals, are downstream hydrocarbons derived from crude oil and natural gas. The value additions in the petrochemicals chain offer immense possibilities and cater to the need of textiles and clothing agriculture, packaging, infrastructure, healthcare, furniture, automobiles, information technology, power, electronics and telecommunication, irrigation, drinking water, construction and a host of other articles of daily and specialized usage amidst other emerging areas.

2. Chemicals can be broadly divided into the following sub-groups

**i. Basic Chemicals**

Chemicals such as organic and inorganic chemicals, bulk petrochemicals, other chemical intermediates, plastic resins, synthetic rubber, man-made fibers, dyes and pigments, printing inks are basic chemicals. These are also known as commodity chemicals.

**ii. Specialty Chemicals**

Specialty Chemicals, also known as performance chemicals, are low-volume but high-value compounds. These chemicals are derived from basic chemicals and are sold on the basis of their function. For example, paint, adhesives, electronic chemicals, water management chemicals, oilfield chemicals, flavors and fragrances, rubber processing additives, paper additives, industrial cleaners and fine chemical. Sealants, coatings, catalysts also come under this category.

**iii. Agro - Chemicals**

Chemicals which essentially are meant for protecting agriculture crops against insects and pests are covered under this sub-group.

3. The Chemical and petrochemical Industries occupies a pivotal position in meeting some basic human needs and in improving the quality of life. It is extremely important to the economy and is an integral part of everyday life. India has a high population base and thus, faces formidable problems in providing sufficient food, medicines and adequate shelter. The chemical industry provides the vital inputs required to augment food production and save crops from attack by a variety of pests in a safe and selective way. The marked improvements in the average life expectancy of our countrymen can be at-least partially attributed to the Chemical Industry which has provided life saving drugs and other chemicals required for managing public health care. The problem of housing can be tackled only with the assistance of the Chemicals Industry. It plays a crucial role in housing development.

4. The Chemical Industry is rooted in science and provides valuable and often indispensable inputs to a large number and variety of industries. Thus, without Chemical Industry, there would

be no electronics or microelectronics, refrigerators, recording tapes, automobiles, laser discs, super magnets, processed foods and virtually all consumer products etc. Even the power industry depends on the Chemical Industry for its operations. The use of chemicals (ion exchange resins) becomes indispensable for removing dissolved salts needs in boilers and other applications. In gold mining, cyanide solution is used for extracting gold. The crude oil refining process uses chemicals, catalysts, heat, and pressure to separate and combine the basic types of hydrocarbon molecules naturally found in crude oil into groups of similar molecules. Apart from providing a variety of drugs for alleviation of human sufferings, the chemical industry provides safe anesthetic agents and high quality artificial aids including a hip joint made from ultra low molecular weight polyethylene. Other health products include dental fills, contact lenses and dialyses also depend on the Chemicals Industry.

5. Some of the most useful materials, synthetic polymers, also known as plastics, have transformed our lives in the last few decades. The driving force for this development was provided by the need for conservation of natural resources and energy efficiency and inherent advantages of the material which created possibilities of innovative designs and cost savings. Its usefulness, adaptability and flexibility of usage have led to a shift in manufacturing from the conventional material based products to synthetic products.

6. Chemicals from petroleum may range from basic petrochemicals such as ethylene, propylene, benzene, xylenes to finished end-products like plastics, rubbers, fibers, detergents, pesticides, dyes etc. These may be classified as (a) first generation, (b) second generation, and (c) third generation petrochemicals. First generation Petrochemicals are chemicals directly available from petroleum crude oil or natural gas either by fractionation, isomerization, cracking etc. These generally represented the basic petrochemicals, which are the building blocks for various chemical syntheses. Examples of this class of chemicals are methane, ethane, propane, ethylene, propylene, toluene, xylenes etc. Second generation petrochemicals are the derivatives of the first generation petrochemicals. Example of such products are styrene (derived from benzene and ethylene), dimethyl terephthalate or terephthalic acid (derived from p-xylene), acrylonitrile (derived from propylene), ethylene glycol (derived from ethylene), vinyl chloride monomer (derived from acetylene or ethylene) etc. Second generation petrochemicals constitute the intermediate chemicals which serve as the raw materials for consumer industries like plastics, rubbers, fibres, dyes, detergents etc. Third Generation Petrochemicals are the consumer commodities derived generally from second generation petrochemicals and represent the most important commercial products such as plastics, rubbers, fibres, detergents etc. Examples are polystyrene (from vinyl chloride monomer), DDT from (chlorobenzene), azo dyes (from styrene), Polyvinyl chloride (from aniline) etc. However, some of the products may be directly synthesized from first generation petrochemicals, Polybutadiene rubber, for instance, is obtained by polymerizing butadiene. Since most of the plastics or rubbers are derived from second generation petrochemicals, polybutadiene rubber is regarded as a third generation petrochemical.<sup>1</sup>

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<sup>1</sup> Dr. G.N.Sarkar, Advanced Petrochemicals, First Edition, Khanna Publishers, New Delhi

7. Chemical sector is predominantly based on feedstock derived from, naphtha, natural gas and salt. Steam Cracking/ Catalytic Reforming of low and high aromatic naphtha in oil refineries provide Olefins (ethylene, propylene and butadiene) and Aromatics (benzene, toluene and xylenes) and. Natural gas contains Methane (CH<sub>4</sub>), Ethane (C<sub>2</sub>H<sub>6</sub>), Propane (C<sub>3</sub>H<sub>8</sub>) and Butane (C<sub>4</sub>H<sub>10</sub>). Rich natural gas, which contains C<sub>2</sub> and C<sub>3</sub> in extractable quantity, is used in producing olefins. Methane is converted into synthesis gas. Synthesis gas is a mixture of carbon monoxide & hydrogen which is used to make ammonia & methanol. Hydrocarbon feedstock, namely, Methane, aromatics and olefins form the basis of the petrochemical industries. Salt is the feed stock for the chlor-alkali chemical industry, just as naphtha and Natural Gas for the petrochemical industry. Consumption of naphtha in petrochemical sector has increased from 5889 thousand tonne in 2008-09 to 9517 thousand tonne in 2014-15. Off take of natural gas for petrochemical sector has increased from 1105 to 2890 million standard cubic meter during the same period

8. Innovations in additives, alloys, blends, compounds, composites and high grade reinforcement materials such as glass, nano-clays, carbon nano-tubes and carbon fibers require attention for technology development. New developments in the field of bio and photodegradable plastics, are also taking place all over the world. The Chemical and petrochemical industries face the challenge to operate in an environmentally acceptable manner. Chemicals are globally tradable and unless chemicals produced in India are cost effective, these cannot contribute usefully to the Nation's economy. With an eye on emerging usages, Research and development efforts should focus on the need to modernize and upgrade the existing manufacturing processes, improve the quality of existing product and make it safe for environment and human health.

9. As per National Industrial Classification (NIC) 2008, Chemical & Chemical products are covered under the industry division 20. The description of product groups at 4-digit level under this division is given below:

| Class | Description                                                                                               |
|-------|-----------------------------------------------------------------------------------------------------------|
|       |                                                                                                           |
| 2011  | Manufacture of basic chemicals                                                                            |
| 2012  | Manufacture of fertilizers and nitrogen compounds                                                         |
| 2013  | Manufacture of plastics and synthetic rubber in primary forms                                             |
| 2021  | Manufacture of pesticides and other agrochemical products                                                 |
| 2022  | Manufacture of paints, varnishes and similar coatings, printing ink and mastics                           |
| 2023  | Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations |
| 2029  | Manufacture of other chemical products n.e.c.                                                             |
| 2030  | Manufacture of man-made fibres                                                                            |

The industry division 24 of NIC 2004 is equivalent of industry division 20 (manufacture of chemical & chemical products), 21(manufacture of pharmaceuticals, medicinal chemicals and botanical products) and 268 (manufacture of magnetic and optical media) of NIC 2008.

10. According to National Accounts Statistics 2015, brought out by the Central Statistics Office (CSO), chemical and chemical products sector (industry division 20 and 21 of NIC 2008) accounted for 2.50% of the GVA (at 2011-12 prices) in 2013-14, compared to 2.45% in 2012-13. The share of this sector in the GVA of manufacturing sector at 2011-12 prices was 13.84% during 2013-14 as compared to 13.38% in 2012-13. The average Indices of Industrial Production (IIP) for the Chemical and Chemical products (industry division 24: NIC 2004) for the year 2014-15 stand at 138.3, which is 0.3% lower as compared to the previous year. The size of the Indian Chemical industry ( industry division 20 and 21 of NIC 2008) in terms of value of output in the year 2013-14 was Rs. 839,460 crore.

11. As per the European Chemical Industry Council (Cefic 2013) world chemicals (excluding pharmaceuticals) sales in 2012 are valued at 3127 Euro billion. India ranks 10th in world with chemicals sales valued at 61.1 Euro billion in 2012. As per UN Comtrade Database for 2014, India ranks 14<sup>th</sup> in the world exports of chemicals (excluding pharmaceutical products) and ranks 8th in the world imports of chemicals (excluding pharmaceutical products). India's exports of chemicals (excluding pharmaceutical products) was 29.76 US\$ billion in 2014. India's share in World exports of chemicals was 2.18% as compared to 1.79 % for all HS code Commodities in 2014. India's imports of chemicals (excluding pharmaceutical products) was 49.32 US\$ billion in 2014. India's share in World imports of chemicals was 3.51% as compared to 2.64 % for all HS code Commodities in 2014.

12. The net imports of chemicals & petrochemicals (excluding pharmaceuticals products and fertilizers) has increased from Rs.10,601 crore in 2007-08 to Rs. 84,403 in 2014-15 The percentage share of the net import of chemicals & petrochemicals in the total national net imports increased from 3.0% to 10.1% during the same period. Plastic and Articles thereof (Chapter39 HS code) accounted Rs. 40,378 crore, Organic Chemicals (Chapter 29 HS code) accounted Rs. 34,748 crore, and Inorganic Chemicals (Chapter 28 HS code) accounted Rs 22,658 crore in the total net imports during 2014-15. At the product level the following products accounted more than Rs. thousand crore in the total net imports

(Rs. Crore)

|                                |      |
|--------------------------------|------|
| POLY VINYL CHLORIDE            | 8524 |
| HIGH DENSITY POLYTHYLENE       | 7601 |
| PURIFIED TEREPHTHALIC ACID     | 5591 |
| STYRENE                        | 5371 |
| LINEAR LOW DENSITY POLYTHYLENE | 5057 |
| MONO EHYLENE GLYCOL            | 4931 |
| METHANOL                       | 3079 |
| LOW DENSITY POLYETHYLENE       | 2719 |
| STYRENE BUTADIENE RUBBER       | 2464 |
| ACETIC ACID                    | 2314 |
| NYLON-6                        | 2088 |
| POLYOL                         | 1981 |

|                        |      |
|------------------------|------|
| POLYCARBONATE          | 1871 |
| PHENOL                 | 1802 |
| VINYL CHLORIDE MONOMER | 1788 |
| TOLUENE                | 1774 |
| BUTYL RUBBER           | 1561 |
| ETHYL VINYL ACETATE    | 1542 |
| ACRYLONITRILE          | 1189 |
| ETHYLENE DICHLORIDE    | 1170 |
| VINYL ACTATE MONOMER   | 1131 |
| 2-ETHYL HEXANOL        | 1110 |
| LINEAR ALKYL BENZENE   | 1107 |
| SODA ASH               | 1075 |

The following products accounted more than Rs. thousand crore in the total net exports:  
(Rs. Crore)

|                         |      |
|-------------------------|------|
| POLYESTER FILAMENT YARN | 5886 |
| REACTIVE DYES           | 3656 |
| BENZENE                 | 3489 |
| PIGMENT EMULSION        | 3175 |
| AZO DYES                | 1895 |
| OTHER PESTICIDES        | 1663 |

|                           |      |
|---------------------------|------|
| PARAXYLENE                | 1587 |
| POLYESTER CHIPS/PET CHIPS | 1519 |
| OTHER FUNGICIDES          | 1419 |
| OTHER INSECTICIDES        | 1389 |
| ORTHO-XYLENE              | 1148 |
| MENTHOL                   | 1109 |

### 13. Commissioning of new installed Capacity<sup>2</sup>

13.1 ONGC Mangalore Petrochemicals Ltd. (OMPL; Mangalore, India) has built an aromatics complex in the Mangalore special economic zone (SEZ) designed to produce 914 KTPA of Paraxylene and 283 KTPA of Benzene and its regular operation started from 1<sup>st</sup> October 2014.

13.2 MRPL has built a 440,000-m.t./year Poly Propylene (PP) plant at the Mangalore Refinery integrated facility which went on stream from June 2015.

13.3 Indian Oil is working on a number of investment projects. It broke ground recently on a PP project at Paradip that will be designed co-produce 700,000 m.t./year. The plant, slated to be on-stream in 2017. The company currently has 650,000 m.t./year of PP capacity at Panipat, Haryana State.

13.4 GAIL is also doubling ethylene capacity at the company's gas-based petrochemicals complex at Pata, Uttar Pradesh State, to 900,000 m.t./year and adding 450,000 m.t./year of LLDPE- HDPE, which will double its capacity for PE.

13.5 Brahmaputra Cracker and Polymer Ltd. (BCPL), 70% owned by GAIL, and 10% each by State Government of Assam, Oil India Ltd and Refinery Ltd., BCPL is building dual feed Cracker Complex to produce 220,000- m.t./year ethylene and 60,000-m.t./year propylene plant. The complex will also produce 226,000 m.t./year of LLDPE-HDPE and 60,000 m.t./year of PP.

13.6 ONGC Petro additions Ltd. (OPaL), a JV of ONGC, GAIL, and Gujarat State Petroleum Corp., is building a grassroots petrochemical complex at the Dahej PCPIR. The complex's ethylene plant will be a dual-feed cracker with capacity of 1.1 million m.t./year of ethylene and 400,000 m.t./year of propylene building blocks which will be polymerized. In the downstream units two 360,000- m.t./year Swing PE units capable of producing high-density PE LLDPE, a 340,000-m.t./year dedicated HDPE plant and a 340,000-m.t./year PP unit. The Dahej project is likely to go on stream in April, 2016.

13.7 Bharat Petroleum Corp. Ltd.'s (BPCL) board earlier in 2014 approved a program to invest an estimated Rs. 45.9 billion to produce niche petrochemicals at the company's Kochi refinery, in

<sup>2</sup> India Petrochemical Industry, Country Paper from India, Review of 2014-15 & Outlook for 2015-16 by Chemicals & Petrochemicals Manufacturer's Association, India (CPMA) for Asia Petrochemical Industry conference, Korea, May 07-08, 2015

the southern state of Kerala. The company is expanding the refinery and building a fluid catalytic cracker that will produce 500,000 m.t./year of propylene. BPCL to evaluate to use the propylene to produce acrylic acid, superabsorbent polymers (SAP), acrylates, and oxo alcohols. The complex is expected on-stream in fiscal 2018-19.

13.8 Reliance Industries is constructing a dual feed off gas cracker with 1.4-million m.t./year ethylene plant, expected on-stream in 2016 -17 which will crack refinery off-gases. Reliance will also adapt its 860,000-m.t./year ethylene plant at Hazira, originally designed to work on naphtha, to partly use gas. Technip is currently performing engineering work for the project. The new Jamnagar cracker will raise Reliance's total ethylene capacity to 3.2 million m.t./year.

14. According to National Sample Survey Office (NSSO)'s latest survey (July 2011-June 2012 NSS 68<sup>th</sup> round), 20.6 lakh persons ( 0.44% of the total work force) were engaged in Chemicals and Chemical Products Sector (Industry Division 20 and 21 of NIC 2008) as per their usual status in the country. As per Central Statistics office (CSO)'s Annual Survey of Industries (Factory Sector) 2011-12, 11.66 lakh persons were engaged in this sector, which is 9.0% of the total persons engaged in all industries covered under the Factory Sector.

15. According to estimates of the CSO, during 2013-14 the corporate sector contributed 99.24% and 85.85% in the Gross Value Added (at current prices) of chemicals and chemical products sector (Industry Division 20 and 21 of NIC 2008) and the manufacturing sector respectively. The estimates of the Value of Output (Factory Sector) of different product groups in the Chemicals and Chemical Products (Division 20-NIC 2008) during the year 2011-12 and 2012-13 are given in the table below:

| Class        | Description                                                                                               | Total Output<br>(Rs. crore) |                  |
|--------------|-----------------------------------------------------------------------------------------------------------|-----------------------------|------------------|
|              |                                                                                                           | 2011-12                     | 2012-13          |
| 2011         | Manufacture of basic chemicals                                                                            | 99544.54                    | 100161.87        |
| 2012         | Manufacture of fertilizers and nitrogen compounds                                                         | 103132.62                   | 104117.52        |
| 2013         | Manufacture of plastics and synthetic rubber in primary forms                                             | 69507.9                     | 73020.58         |
| 2021         | Manufacture of pesticides and other agrochemical products                                                 | 31508.63                    | 28024.9          |
| 2022         | Manufacture of paints, varnishes and similar coatings, printing ink and mastics                           | 34132.31                    | 31320.28         |
| 2023         | Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations | 57704.93                    | 53592.8          |
| 2029         | Manufacture of other chemical products n.e.c.                                                             | 48080.07                    | 61651.23         |
| 2030         | Manufacture of man-made fibres                                                                            | 20583.07                    | 21079.09         |
| <b>Total</b> |                                                                                                           | <b>464194.1</b>             | <b>472968.27</b> |

Source: Annual Survey of Industries 2011-12 and 2012-13 (Factory sector), Ministry of Statistics & Programme Implementation

## *Section – II*

# *Chemical Sector*

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**Table-1: Performance of selected Major Chemicals (Group-Wise) during 2007-08 to 2014-15 at a Glance**

(Figures in 000'MT)

| GROUP                                 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | CARG<br>(%) (14-<br>15/07-08) |
|---------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|-------------------------------|
| 1                                     | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10                            |
| <b>1. Alkali Chemicals</b>            |         |         |         |         |         |         |         |         |                               |
| Capacity                              | 7751    | 7751    | 7768    | 7767    | 7833    | 7882    | 7882    | 7860    | 0.20                          |
| Production                            | 5501    | 5545    | 5830    | 6271    | 6478    | 6487    | 6481    | 6619    | 2.68                          |
| Capacity Utilisation (%)              | 71      | 72      | 75      | 81      | 83      | 82      | 82      | 84      | 2.47                          |
| Imports                               | 499     | 511     | 868     | 630     | 658     | 995     | 874     | 1134    | 12.43                         |
| Exports                               | 111     | 148     | 342     | 347     | 345     | 145     | 164     | 74      | -5.73                         |
| <b>2. Inorganic Chemicals</b>         |         |         |         |         |         |         |         |         |                               |
| Capacity                              | 1083    | 1083    | 1001    | 1141    | 1221    | 1208    | 1198    | 1224    | 1.76                          |
| Production                            | 889     | 782     | 819     | 898     | 881     | 873     | 892     | 922     | 0.52                          |
| Capacity Utilisation (%)              | 82      | 72      | 82      | 79      | 72      | 72      | 74      | 75      | -1.22                         |
| Imports                               | 290     | 314     | 356     | 455     | 479     | 689     | 874     | 912     | 17.78                         |
| Exports                               | 135     | 118     | 399     | 406     | 327     | 163     | 167     | 164     | 2.83                          |
| <b>3. Organic Chemicals</b>           |         |         |         |         |         |         |         |         |                               |
| Capacity                              | 2288    | 2312    | 2488    | 2532    | 2559    | 2421    | 2472    | 2543    | 1.52                          |
| Production                            | 1692    | 1414    | 1448    | 1550    | 1640    | 1686    | 1792    | 1619    | -0.63                         |
| Capacity Utilisation (%)              | 74      | 61      | 58      | 61      | 64      | 70      | 73      | 64      | -2.12                         |
| Imports                               | 1211    | 1639    | 1548    | 1639    | 2182    | 2487    | 2496    | 2886    | 13.21                         |
| Exports                               | 116     | 83      | 143     | 187     | 315     | 407     | 335     | 241     | 10.93                         |
| <b>4. Pesticides (Tech.)</b>          |         |         |         |         |         |         |         |         |                               |
| Capacity                              | 154     | 158     | 186     | 232     | 253     | 269     | 288     | 292     | 9.59                          |
| Production                            | 124     | 130     | 135     | 144     | 156     | 155     | 179     | 187     | 5.97                          |
| Capacity Utilisation (%)              | 81      | 82      | 73      | 62      | 62      | 58      | 62      | 64      | -3.30                         |
| Imports\$                             | 8       | 18      | 20      | 27      | 30      | 30      | 37      | 41      | 25.51                         |
| Exports\$                             | 103     | 112     | 128     | 125     | 154     | 180     | 207     | 230     | 12.22                         |
| <b>5. Dyes &amp; Pigments</b>         |         |         |         |         |         |         |         |         |                               |
| Capacity                              | 223     | 243     | 344     | 374     | 407     | 417     | 429     | 456     | 10.76                         |
| Production                            | 173     | 168     | 220     | 245     | 241     | 240     | 284     | 285     | 7.40                          |
| Capacity Utilisation (%)              | 78      | 69      | 64      | 65      | 59      | 57      | 66      | 63      | -3.03                         |
| Imports                               | 39      | 32      | 36      | 41      | 48      | 52      | 52      | 52      | 4.12                          |
| Exports                               | 210     | 207     | 249     | 272     | 288     | 326     | 347     | 353     | 7.74                          |
| <b>Total Major Chemicals (1 to 5)</b> |         |         |         |         |         |         |         |         |                               |
| Capacity                              | 11499   | 11547   | 11786   | 12045   | 12272   | 12198   | 12269   | 12375   | 1.05                          |
| Production                            | 8380    | 8039    | 8452    | 9108    | 9396    | 9441    | 9628    | 9632    | 2.01                          |
| Capacity Utilisation (%)              | 73      | 70      | 72      | 76      | 77      | 77      | 78      | 78      | 0.95                          |
| Imports                               | 2048    | 2514    | 2828    | 2792    | 3397    | 4253    | 4333    | 5025    | 13.68                         |
| Exports                               | 675     | 668     | 1261    | 1337    | 1429    | 1220    | 1221    | 1061    | 6.69                          |

Note : \$ Import and Export includes both technical and formulations.

**Table -2 : Production, Installed Capacity & Growth of Selected Major Chemicals (Group-wise) during 2007-08 to 2014-15**

(Figures in 000'MT)

| Group               | Installed Capacity |         |         | Production / Growth Rate | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|---------------------|--------------------|---------|---------|--------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                     | 2012-13            | 2013-14 | 2014-15 |                          |         |         |         |         |         |         |         |         |
| 1                   | 2                  | 3       | 4       | 5                        | 6       | 7       | 8       | 9       | 10      | 11      | 12      | 13      |
| Alkali Chemicals    | 7882               | 7882    | 7860    | Production               | 5501    | 5545    | 5830    | 6271    | 6478    | 6487    | 6481    | 6619    |
|                     |                    |         |         | Growth Rate (%)          |         | 0.80    | 5.14    | 7.57    | 3.30    | 0.14    | -0.09   | 2.13    |
| Inorganic Chemicals | 1208               | 1198    | 1224    | Production               | 889     | 782     | 819     | 898     | 881     | 873     | 892     | 922     |
|                     |                    |         |         | Growth Rate (%)          |         | -12.03  | 4.78    | 9.63    | -1.91   | -0.94   | 2.17    | 3.36    |
| Organic Chemicals   | 2421               | 2472    | 2543    | Production               | 1692    | 1414    | 1448    | 1550    | 1640    | 1686    | 1792    | 1619    |
|                     |                    |         |         | Growth Rate (%)          |         | -16.47  | 2.42    | 7.06    | 5.80    | 2.83    | 6.28    | -9.67   |
| Pesticides          | 269                | 288     | 292     | Production               | 124     | 130     | 135     | 144     | 156     | 155     | 179     | 187     |
|                     |                    |         |         | Growth Rate (%)          |         | 4.30    | 3.98    | 6.59    | 8.52    | -0.48   | 15.41   | 4.16    |
| Dyes & Pigments     | 417                | 429     | 456     | Production               | 173     | 168     | 220     | 245     | 241     | 240     | 284     | 285     |
|                     |                    |         |         | Growth Rate (%)          |         | -2.70   | 30.63   | 11.32   | -1.63   | -0.56   | 18.40   | 0.58    |

Note: Product coverage under each group is given at page vii.

**Table-3: Production,Capacity Utilization & growth of Major Chemicals (Product-wise) during 2007-08 to 2014-15**

(Figures in 000'MT)

| Major Groups / Products    | Installed Capacity |                |                | Production     |                |                |                |                |                |                |                | CAGR (%) (14-15/07-08) | Capacity Utilization in 2014-15 (col. 12/col. 5) |
|----------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|------------------------|--------------------------------------------------|
|                            | 2012-13            | 2013-14        | 2014-15        | 2007-08        | 2008-09        | 2009-10        | 2010-11        | 2011-12        | 2012-13        | 2013-14        | 2014-15        |                        |                                                  |
| 1                          | 2                  | 3              | 4              | 5              | 6              | 7              | 8              | 9              | 10             | 11             | 12             | 13                     | 14                                               |
| <b>ALKALI CHEMICALS</b>    |                    |                |                |                |                |                |                |                |                |                |                |                        |                                                  |
| SODA ASH                   | 2951.00            | 2951.00        | 2951.00        | 2005.51        | 1989.05        | 2058.34        | 2298.76        | 2410.82        | 2437.79        | 2392.17        | 2462.00        | 2.97                   | 83.43                                            |
| CAUSTIC SODA               | 2948.25            | 2948.25        | 2938.89        | 2081.21        | 2113.37        | 2237.62        | 2334.45        | 2408.73        | 2375.83        | 2391.66        | 2439.50        | 2.30                   | 83.01                                            |
| LIQUID CHLORINE            | 1983.00            | 1983.00        | 1970.00        | 1414.14        | 1442.53        | 1533.81        | 1637.62        | 1658.08        | 1673.25        | 1697.33        | 1717.97        | 2.82                   | 87.21                                            |
| <b>Total</b>               | <b>7882.25</b>     | <b>7882.25</b> | <b>7859.89</b> | <b>5500.86</b> | <b>5544.94</b> | <b>5829.76</b> | <b>6270.82</b> | <b>6477.63</b> | <b>6486.88</b> | <b>6481.15</b> | <b>6619.47</b> | <b>2.68</b>            | <b>84.22</b>                                     |
| <b>INORGANIC CHEMICALS</b> |                    |                |                |                |                |                |                |                |                |                |                |                        |                                                  |
| ALUMINIUM FLUORIDE         | 25.60              | 25.60          | 25.60          | 19.43          | 15.07          | 11.55          | 9.80           | 7.31           | 6.70           | 5.40           | 6.73           | -14.05                 | 26.30                                            |
| CALCIUM CARBIDE            | 112.00             | 112.00         | 112.00         | 97.41          | 66.55          | 22.02          | 44.70          | 66.39          | 70.98          | 78.78          | 87.18          | -1.57                  | 77.84                                            |
| CARBON BLACK               | 559.00             | 559.00         | 578.00         | 426.96         | 371.40         | 419.43         | 452.44         | 447.67         | 404.02         | 406.41         | 444.35         | 0.57                   | 76.88                                            |
| POTASSIUM CHLORATE         | 3.00               | 3.00           | 3.00           | 5.36           | 5.79           | 2.60           | 0.61           | 0.34           | 0.59           | 0.68           | 0.45           | -29.87                 | 14.90                                            |
| TITANIUM DIOXIDE           | 76.05              | 76.05          | 82.50          | 59.15          | 53.28          | 61.32          | 64.02          | 52.14          | 50.14          | 52.78          | 47.88          | -2.97                  | 58.04                                            |
| RED PHOSPHORUS             | 1.68               | 1.68           | 1.68           | 0.54           | 0.46           | 0.58           | 0.48           | 0.56           | 0.69           | 0.75           | 0.89           | 7.26                   | 52.68                                            |
| HYDROGEN PEROXIDE          | 137.95             | 137.95         | 137.95         | 84.91          | 95.30          | 105.42         | 116.43         | 89.40          | 107.45         | 113.79         | 97.25          | 1.96                   | 70.49                                            |
| POTASSIUM IODATE           | 0.00               | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           | 0.00           |                        |                                                  |
| CALCIUM CARBONATE          | 292.35             | 282.35         | 282.35         | 195.03         | 174.02         | 196.33         | 209.65         | 217.20         | 232.18         | 233.12         | 236.93         | 2.82                   | 83.91                                            |

**Table-3: Production,Capacity Utilization & growth of Major Chemicals (Product-wise) during 2007-08 to 2014-15**

(Figures in 000'MT)

| Major Groups / Products  | Installed Capacity |                |                | Production    |               |               |               |               |               |               |               | CAGR<br>(%) (14-<br>15/07-<br>08) | Capacity<br>Utilization<br>in 2014-15<br>(col.<br>12/col. 5) |
|--------------------------|--------------------|----------------|----------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------------------------|--------------------------------------------------------------|
|                          | 2012-13            | 2013-14        | 2014-15        | 2007-08       | 2008-09       | 2009-10       | 2010-11       | 2011-12       | 2012-13       | 2013-14       | 2014-15       |                                   |                                                              |
| 1                        | 2                  | 3              | 4              | 5             | 6             | 7             | 8             | 9             | 10            | 11            | 12            | 13                                | 14                                                           |
| <b>Total</b>             | <b>1207.63</b>     | <b>1197.63</b> | <b>1223.08</b> | <b>888.81</b> | <b>781.87</b> | <b>819.26</b> | <b>898.12</b> | <b>881.01</b> | <b>872.75</b> | <b>891.70</b> | <b>921.65</b> | <b>0.52</b>                       | <b>75.35</b>                                                 |
| <b>ORGANIC CHEMICALS</b> |                    |                |                |               |               |               |               |               |               |               |               |                                   |                                                              |
| ACETIC ACID              | 192.28             | 192.28         | 177.43         | 341.81        | 214.04        | 146.44        | 156.48        | 160.73        | 160.56        | 157.17        | 159.61        | -10.31                            | 89.96                                                        |
| ACETIC ANHYDRIDE         | 100.92             | 100.92         | 148.30         | 40.92         | 47.24         | 56.92         | 52.91         | 53.28         | 87.15         | 80.85         | 93.84         | 12.59                             | 63.28                                                        |
| ACETONE                  | 47.82              | 47.82          | 49.46          | 47.19         | 46.83         | 44.25         | 50.54         | 42.80         | 37.05         | 28.58         | 25.98         | -8.17                             | 52.53                                                        |
| PHENOL                   | 77.13              | 77.13          | 79.68          | 74.94         | 75.75         | 71.59         | 79.81         | 65.93         | 59.92         | 46.39         | 42.26         | -7.86                             | 53.04                                                        |
| METHANOL                 | 474.30             | 474.30         | 474.30         | 351.73        | 237.12        | 330.83        | 374.53        | 359.93        | 254.91        | 307.26        | 209.83        | -7.11                             | 44.24                                                        |
| FORMALDEHYDE             | 413.25             | 413.25         | 411.30         | 242.76        | 231.84        | 261.29        | 266.61        | 263.80        | 275.36        | 268.29        | 255.95        | 0.76                              | 62.23                                                        |
| NITROBENZENE             | 103.80             | 103.80         | 103.80         | 71.32         | 56.43         | 63.41         | 72.41         | 74.46         | 83.70         | 76.51         | 69.72         | -0.32                             | 67.17                                                        |
| MALEIC ANHYDRIDE         | 23.15              | 23.15          | 24.15          | 4.25          | 2.97          | 2.55          | 2.76          | 2.63          | 2.48          | 2.92          | 3.20          | -3.94                             | 13.27                                                        |
| PENTAERYTHRITOL          | 15.40              | 15.40          | 16.72          | 14.95         | 13.82         | 11.21         | 11.73         | 11.40         | 11.49         | 12.18         | 13.46         | -1.49                             | 80.50                                                        |
| ANILINE                  | 60.10              | 60.10          | 60.10          | 44.98         | 34.67         | 39.39         | 41.05         | 40.09         | 48.23         | 40.62         | 34.47         | -3.73                             | 57.36                                                        |
| CHLORO METHANES          | 211.75             | 211.75         | 216.75         | 98.62         | 128.96        | 134.79        | 161.35        | 188.55        | 197.74        | 214.03        | 220.71        | 12.20                             | 101.83                                                       |
| ISOBUTYLBENZENE          | 3.75               | 3.75           | 3.75           | 3.33          | 3.34          | 4.07          | 2.27          | 1.94          | 6.63          | 6.08          | 4.30          | 3.72                              | 114.77                                                       |
| ONCB                     | 30.00              | 30.00          | 30.00          | 13.81         | 15.71         | 15.44         | 16.69         | 13.74         | 15.41         | 16.82         | 16.13         | 2.24                              | 53.76                                                        |

**Table-3: Production,Capacity Utilization & growth of Major Chemicals (Product-wise) during 2007-08 to 2014-15**

(Figures in 000'MT)

| Major Groups / Products            | Installed Capacity |                |                | Production     |                |                |                |                |                |                |                | CAGR<br>(%) (14-<br>15/07-<br>08) | Capacity<br>Utilization<br>in 2014-15<br>(col.<br>12/col. 5) |
|------------------------------------|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------------------|--------------------------------------------------------------|
|                                    | 2012-13            | 2013-14        | 2014-15        | 2007-08        | 2008-09        | 2009-10        | 2010-11        | 2011-12        | 2012-13        | 2013-14        | 2014-15        |                                   |                                                              |
| 1                                  | 2                  | 3              | 4              | 5              | 6              | 7              | 8              | 9              | 10             | 11             | 12             | 13                                | 14                                                           |
| PNCB                               | 30.00              | 30.00          | 30.00          | 20.92          | 25.25          | 23.57          | 24.87          | 22.14          | 24.40          | 27.06          | 26.96          | 3.69                              | 89.87                                                        |
| MEK                                | 5.00               | 5.00           | 5.00           | 0.00           | 0.00           | 0.00           | 0.00           | 2.19           | 2.49           | 3.72           | 4.02           | 0.00                              | 80.42                                                        |
| ACETALDEHYDE                       | 183.51             | 183.51         | 172.01         | 203.37         | 117.62         | 59.82          | 32.26          | 65.39          | 76.27          | 79.66          | 67.77          | -14.53                            | 39.40                                                        |
| ETHANOLAMINES                      | 10.00              | 10.00          | 10.00          | 9.86           | 12.31          | 7.00           | 3.45           | 8.73           | 7.05           | 11.20          | 13.76          | 4.89                              | 137.64                                                       |
| ETHYL ACETATE                      | 389.63             | 439.63         | 479.83         | 90.84          | 128.10         | 147.20         | 170.48         | 235.36         | 305.26         | 382.39         | 327.94         | 20.13                             | 68.34                                                        |
| MENTHOL                            | 33.05              | 33.65          | 33.65          | 11.15          | 13.65          | 14.41          | 15.74          | 15.80          | 19.70          | 18.34          | 17.45          | 6.60                              | 51.84                                                        |
| ORTHO NITRO<br>TOLUENE             | 16.40              | 16.40          | 16.40          | 5.72           | 8.10           | 13.80          | 14.20          | 11.14          | 10.68          | 12.31          | 11.74          | 10.82                             | 71.57                                                        |
| <b>Total</b>                       | <b>2421.25</b>     | <b>2471.84</b> | <b>2542.63</b> | <b>1692.45</b> | <b>1413.74</b> | <b>1447.96</b> | <b>1550.12</b> | <b>1640.03</b> | <b>1686.48</b> | <b>1792.34</b> | <b>1619.11</b> | <b>-0.63</b>                      | <b>63.68</b>                                                 |
| <b>PESTICIDES AND INSECTICIDES</b> |                    |                |                |                |                |                |                |                |                |                |                |                                   |                                                              |
| D.D.T.                             | 6.34               | 6.34           | 3.60           | 3.44           | 3.32           | 3.61           | 3.19           | 3.64           | 3.87           | 2.79           | 3.63           | 0.75                              | 100.75                                                       |
| MALATHION                          | 3.80               | 3.80           | 2.60           | 6.30           | 3.38           | 1.67           | 3.05           | 2.55           | 1.71           | 2.04           | 2.24           | -13.73                            | 86.19                                                        |
| DIMETHOATE                         | 5.65               | 5.65           | 5.65           | 0.89           | 0.56           | 0.98           | 1.17           | 0.73           | 0.81           | 1.36           | 1.43           | 7.08                              | 25.36                                                        |
| D.D.V.P.                           | 3.68               | 10.68          | 13.92          | 3.48           | 3.01           | 3.87           | 3.48           | 4.64           | 4.41           | 5.52           | 6.66           | 9.70                              | 47.82                                                        |
| QUINALPHOS                         | 2.80               | 2.80           | 2.80           | 0.52           | 0.84           | 0.99           | 1.01           | 1.00           | 1.35           | 1.74           | 1.88           | 20.03                             | 67.18                                                        |
| MONOCROTOPHOS                      | 12.84              | 12.24          | 13.18          | 5.12           | 4.57           | 5.74           | 9.93           | 9.59           | 8.25           | 4.27           | 6.97           | 4.50                              | 52.86                                                        |

**Table-3: Production,Capacity Utilization & growth of Major Chemicals (Product-wise) during 2007-08 to 2014-15**

(Figures in 000'MT)

| Major Groups / Products | Installed Capacity |         |         | Production |         |         |         |         |         |         |         | CAGR<br>(%) (14-15/07-08) | Capacity Utilization<br>in 2014-15<br>(col. 12/col. 5) |
|-------------------------|--------------------|---------|---------|------------|---------|---------|---------|---------|---------|---------|---------|---------------------------|--------------------------------------------------------|
|                         | 2012-13            | 2013-14 | 2014-15 | 2007-08    | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |                           |                                                        |
| 1                       | 2                  | 3       | 4       | 5          | 6       | 7       | 8       | 9       | 10      | 11      | 12      | 13                        | 14                                                     |
| PHOSPHAMIDON            | 3.20               | 3.20    | 3.20    | 0.71       | 0.85    | 1.00    | 0.29    | 0.06    | 0.02    | 0.05    | 0.13    | -21.71                    | 4.00                                                   |
| PHORATE                 | 10.63              | 11.63   | 11.63   | 7.80       | 6.12    | 7.12    | 7.67    | 7.01    | 5.75    | 6.85    | 6.62    | -2.32                     | 56.91                                                  |
| ETHION                  | 4.02               | 4.02    | 4.02    | 2.20       | 1.47    | 1.51    | 1.92    | 1.33    | 0.94    | 1.51    | 1.60    | -4.43                     | 39.90                                                  |
| ENDOSULPHAN             | 0.00               | 0.00    | 0.00    | 10.55      | 11.35   | 9.90    | 11.49   | 1.35    | 0.00    | 0.00    | 0.00    |                           |                                                        |
| FENVALERATE             | 2.10               | 2.10    | 2.10    | 0.72       | 0.52    | 0.55    | 0.81    | 0.55    | 0.48    | 0.75    | 0.51    | -4.73                     | 24.38                                                  |
| CYPERMETHRIN            | 14.49              | 15.69   | 15.69   | 6.07       | 5.98    | 8.89    | 7.21    | 10.41   | 7.78    | 9.26    | 8.59    | 5.08                      | 54.73                                                  |
| ACEPHATE                | 11.86              | 16.58   | 18.25   | 12.72      | 12.59   | 14.90   | 16.49   | 17.11   | 15.76   | 14.51   | 17.97   | 5.07                      | 49.43                                                  |
| CHLORPYRIPHOS           | 34.10              | 34.20   | 36.36   | 9.04       | 8.93    | 9.31    | 8.72    | 6.05    | 7.52    | 9.54    | 9.88    | 1.27                      | 253.28                                                 |
| PHOSALONE               | 0.00               | 0.00    | 0.00    | 0.50       | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    |                           |                                                        |
| TRIAZOPHOS              | 3.90               | 3.90    | 3.90    | 2.01       | 2.27    | 1.06    | 1.75    | 0.78    | 0.93    | 0.99    | 1.00    | -9.50                     | 303.03                                                 |
| LINDANE                 | 0.33               | 0.33    | 0.33    | 0.08       | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | 0.00    | -100.00                   | 0.00                                                   |
| TEMEPHOS                | 0.50               | 0.25    | 0.25    | 0.23       | 0.27    | 0.08    | 0.12    | 0.13    | 0.20    | 0.25    | 0.00    | -100.00                   |                                                        |
| DELTAMETHRIN            | 0.58               | 0.63    | 0.63    | 0.26       | 0.04    | 0.12    | 0.68    | 0.47    | 0.52    | 0.52    | 0.51    | 9.95                      | 81.11                                                  |
| ALPHAMETHRIN            | 0.33               | 0.35    | 0.51    | 0.21       | 0.02    | 0.26    | 0.55    | 0.57    | 0.54    | 0.56    | 0.75    | 19.77                     | 146.27                                                 |
| PROFENOFOS<br>TECHNICAL | 12.85              | 14.60   | 14.90   | 2.35       | 2.76    | 3.28    | 4.60    | 6.41    | 5.01    | 7.18    | 7.64    | 18.35                     | 51.28                                                  |

**Table-3: Production,Capacity Utilization & growth of Major Chemicals (Product-wise) during 2007-08 to 2014-15**

(Figures in 000'MT)

| Major Groups / Products   | Installed Capacity |         |         | Production |         |         |         |         |         |         |         | CAGR<br>(%) (14-15/07-08) | Capacity Utilization<br>in 2014-15<br>(col. 12/col. 5) |
|---------------------------|--------------------|---------|---------|------------|---------|---------|---------|---------|---------|---------|---------|---------------------------|--------------------------------------------------------|
|                           | 2012-13            | 2013-14 | 2014-15 | 2007-08    | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |                           |                                                        |
| 1                         | 2                  | 3       | 4       | 5          | 6       | 7       | 8       | 9       | 10      | 11      | 12      | 13                        | 14                                                     |
| PRETILACHLOR<br>TECHNICAL | 1.40               | 2.84    | 2.56    | 1.27       | 1.30    | 1.17    | 1.18    | 1.65    | 1.93    | 2.22    | 1.88    | 5.79                      | 73.28                                                  |
| LAMBDA<br>CYHALOTHRIN     | 0.00               | 0.60    | 0.60    | 0.00       | 0.13    | 0.13    | 0.21    | 0.29    | 0.43    | 0.55    | 0.47    | 106.05                    | 26.28                                                  |
| PHENTHOATE                | 0.90               | 0.90    | 0.90    | 0.00       | 0.00    | 0.06    | 0.59    | 0.59    | 0.96    | 1.24    | 1.40    |                           | 155.56                                                 |
| PERMETHRIN TECH           | 2.00               | 1.80    | 1.80    | 0.21       | 0.44    | 0.42    | 0.65    | 1.41    | 1.04    | 1.39    | 1.70    | 34.68                     |                                                        |
| IMIDACALOPRID TECH        | 2.63               | 2.63    | 2.78    | 0.11       | 0.14    | 0.13    | 0.13    | 0.39    | 0.23    | 0.94    | 0.56    | 25.53                     | 20.14                                                  |
| CAPTAN & CAPTAFOL         | 4.73               | 4.73    | 3.85    | 0.00       | 0.00    | 0.00    | 0.72    | 0.92    | 0.56    | 1.12    | 2.38    |                           | 61.87                                                  |
| ZIRAM(THIO<br>BARBAMATE)  | 0.45               | 0.65    | 0.70    | 0.17       | 0.11    | 0.14    | 0.66    | 0.73    | 0.55    | 0.60    | 0.58    | 18.81                     | 82.93                                                  |
| CARBENDZIM(BAVISTI<br>N)  | 0.98               | 0.98    | 0.98    | 0.07       | 0.20    | 0.38    | 0.59    | 0.43    | 0.34    | 0.31    | 0.36    | 26.63                     | 36.22                                                  |
| MANCOZAB                  | 69.76              | 71.56   | 71.56   | 27.03      | 35.34   | 31.49   | 26.05   | 43.46   | 45.30   | 57.82   | 61.40   | 12.44                     | 85.81                                                  |
| HEXACONAZOLE              | 0.50               | 0.50    | 0.50    | 0.29       | 0.34    | 0.42    | 0.43    | 0.47    | 0.44    | 0.58    | 0.59    | 10.92                     | 118.60                                                 |
| METCONAZOLE               | 0.75               | 0.75    | 0.75    | 0.17       | 0.21    | 0.21    | 0.36    | 0.50    | 0.63    | 0.70    | 0.61    | 19.54                     | 80.93                                                  |
| 2, 4-D                    | 22.00              | 22.00   | 22.00   | 8.90       | 9.57    | 10.64   | 12.60   | 15.03   | 15.44   | 17.90   | 11.62   | 3.89                      | 52.83                                                  |
| BUTACHLOR                 | 0.50               | 0.50    | 0.50    | 0.03       | 0.12    | 0.24    | 0.29    | 0.20    | 0.18    | 0.04    | 0.00    | -100.00                   | 0.00                                                   |
| ETHOFUMESATE<br>TECHNICAL | 1.65               | 1.25    | 1.65    | 0.00       | 0.00    | 0.56    | 0.82    | 1.14    | 1.22    | 1.01    | 0.62    |                           | 37.52                                                  |
| THIAMETHOXAM<br>TECHNICAL | 3.00               | 3.00    | 3.10    | 1.54       | 1.81    | 1.82    | 1.49    | 1.63    | 3.12    | 3.31    | 1.66    | 1.10                      | 53.52                                                  |

**Table-3: Production,Capacity Utilization & growth of Major Chemicals (Product-wise) during 2007-08 to 2014-15****(Figures in 000'MT)**

| Major Groups / Products        | Installed Capacity |               |               | Production    |               |               |               |               |               |               |               | CAGR<br>(%) (14-<br>15/07-<br>08) | Capacity<br>Utilization<br>in 2014-15<br>(col.<br>12/col. 5) |
|--------------------------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------------------------|--------------------------------------------------------------|
|                                | 2012-13            | 2013-14       | 2014-15       | 2007-08       | 2008-09       | 2009-10       | 2010-11       | 2011-12       | 2012-13       | 2013-14       | 2014-15       |                                   |                                                              |
| 1                              | 2                  | 3             | 4             | 5             | 6             | 7             | 8             | 9             | 10            | 11            | 12            | 13                                | 14                                                           |
| PENDIMETHALIN                  | 2.00               | 2.00          | 2.00          | 0.00          | 0.00          | 0.00          | 0.00          | 0.00          | 1.03          | 1.71          | 2.26          |                                   | 112.95                                                       |
| METRIBUZIN                     | 0.75               | 0.75          | 0.75          | 0.00          | 0.00          | 0.00          | 0.00          | 0.00          | 0.24          | 0.74          | 0.52          |                                   | 69.20                                                        |
| TRICLOPYR ACID<br>TECH         | 0.30               | 0.30          | 0.30          | 0.11          | 0.09          | 0.23          | 0.30          | 0.10          | 0.21          | 0.20          | 0.19          | 8.63                              | 63.67                                                        |
| ISOPROTURON                    | 6.25               | 6.25          | 6.25          | 2.96          | 2.98          | 2.91          | 3.68          | 2.53          | 4.05          | 2.35          | 2.43          | -2.81                             | 38.82                                                        |
| GLYPHOSATE                     | 9.26               | 9.26          | 9.26          | 2.58          | 4.39          | 4.66          | 4.86          | 5.25          | 6.12          | 8.48          | 9.81          | 21.05                             | 105.92                                                       |
| DIURON                         | 0.05               | 0.05          | 0.33          | 0.08          | 0.01          | 0.13          | 0.23          | 0.31          | 0.14          | 0.07          | 0.12          | 7.20                              | 36.97                                                        |
| ATRAZIN                        | 0.50               | 0.50          | 0.50          | 0.22          | 0.26          | 0.26          | 0.25          | 0.66          | 0.65          | 1.24          | 1.20          | 27.56                             | 239.60                                                       |
| ZINC PHOSPHIDE                 | 1.10               | 1.32          | 1.32          | 0.95          | 0.91          | 0.92          | 0.86          | 0.89          | 0.60          | 0.65          | 1.31          | 4.61                              | 98.86                                                        |
| ALUMINIUM<br>PHOSPHIDE         | 3.90               | 3.90          | 3.90          | 2.53          | 2.58          | 3.25          | 2.82          | 3.14          | 4.16          | 4.47          | 5.07          | 10.45                             | 130.08                                                       |
| DICOFOL                        | 0.15               | 0.15          | 0.09          | 0.09          | 0.09          | 0.02          | 0.05          | 0.08          | 0.05          | 0.07          | 0.11          | 2.83                              | 118.89                                                       |
| <b>Total</b>                   | <b>269.50</b>      | <b>288.15</b> | <b>292.44</b> | <b>124.50</b> | <b>129.85</b> | <b>135.02</b> | <b>143.92</b> | <b>156.17</b> | <b>155.42</b> | <b>179.38</b> | <b>186.83</b> | <b>5.97</b>                       | <b>63.89</b>                                                 |
| <b>DYES AND PIGMENTS</b>       |                    |               |               |               |               |               |               |               |               |               |               |                                   |                                                              |
| AZO DYES                       | 20.06              | 20.30         | 20.30         | 15.66         | 13.15         | 12.68         | 13.96         | 12.10         | 12.72         | 13.46         | 10.59         | -5.43                             | 52.18                                                        |
| ACID DIRECT<br>DYES(OTHER THAN | 45.08              | 45.08         | 44.90         | 9.53          | 10.84         | 15.34         | 20.36         | 19.00         | 17.58         | 19.00         | 17.23         | 8.82                              | 38.37                                                        |
| DISPERSE DYES                  | 55.21              | 55.21         | 55.21         | 21.82         | 23.26         | 25.22         | 28.72         | 29.44         | 28.26         | 29.21         | 29.56         | 4.43                              | 53.54                                                        |

**Table-3: Production,Capacity Utilization & growth of Major Chemicals (Product-wise) during 2007-08 to 2014-15****(Figures in 000'MT)**

| Major Groups / Products         | Installed Capacity |               |               | Production    |               |               |               |               |               |               |               | CAGR<br>(%) (14-<br>15/07-<br>08) | Capacity<br>Utilization<br>in 2014-15<br>(col.<br>12/col. 5) |
|---------------------------------|--------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|-----------------------------------|--------------------------------------------------------------|
|                                 | 2012-13            | 2013-14       | 2014-15       | 2007-08       | 2008-09       | 2009-10       | 2010-11       | 2011-12       | 2012-13       | 2013-14       | 2014-15       |                                   |                                                              |
| 1                               | 2                  | 3             | 4             | 5             | 6             | 7             | 8             | 9             | 10            | 11            | 12            | 13                                | 14                                                           |
| FAST COLOUR BASES               | 0.50               | 0.50          | 0.50          | 0.04          | 0.04          | 0.05          | 0.09          | 0.04          | 0.02          | 0.01          | 0.01          | -20.82                            | 1.60                                                         |
| INGRAIN DYES                    | 1.61               | 1.61          | 1.61          | 1.20          | 1.09          | 0.93          | 0.69          | 0.98          | 0.58          | 0.51          | 0.44          | -13.34                            | 27.35                                                        |
| OIL SOLUBLE<br>(SOLVENT DYES)   | 3.77               | 3.77          | 3.77          | 1.23          | 2.15          | 2.25          | 2.02          | 2.64          | 2.31          | 2.26          | 1.80          | 5.58                              | 47.78                                                        |
| OPTICAL WHITENING<br>AGENTS     | 37.30              | 37.30         | 37.30         | 9.31          | 9.82          | 12.36         | 15.02         | 14.14         | 18.17         | 23.74         | 22.94         | 13.76                             | 61.51                                                        |
| ORGANIC PIGMENT                 | 64.16              | 74.28         | 79.83         | 54.64         | 45.40         | 49.90         | 56.35         | 51.77         | 44.46         | 68.67         | 76.89         | 5.00                              | 96.32                                                        |
| PIGMENT EMULSION                | 5.53               | 5.53          | 5.53          | 1.90          | 3.41          | 5.04          | 5.89          | 5.22          | 6.48          | 7.34          | 9.64          | 26.14                             | 174.21                                                       |
| REACTIVE DYES                   | 159.57             | 159.57        | 180.82        | 42.97         | 43.96         | 73.20         | 76.88         | 83.38         | 87.60         | 95.42         | 89.47         | 11.05                             | 49.48                                                        |
| SULPHUR DYES<br>(SULPHUR BLACK) | 3.00               | 3.00          | 3.00          | 4.24          | 5.64          | 8.69          | 8.58          | 7.02          | 6.58          | 7.57          | 9.38          | 12.02                             | 312.77                                                       |
| VAT DYES                        | 2.98               | 2.98          | 2.98          | 1.60          | 1.46          | 1.70          | 1.94          | 1.69          | 1.38          | 1.60          | 1.77          | 1.46                              | 59.33                                                        |
| SOLUBILISED VAT<br>DYES         | 0.13               | 0.13          | 0.13          | 0.04          | 0.03          | 0.03          | 0.04          | 0.03          | 0.03          | 0.02          | 0.03          | -1.27                             | 25.20                                                        |
| FOOD COLOURS                    | 1.13               | 1.13          | 1.13          | 0.24          | 0.20          | 0.29          | 0.36          | 0.36          | 0.25          | 0.62          | 0.66          | 15.64                             | 58.49                                                        |
| NAPTHOLS                        | 0.90               | 0.90          | 0.90          | 0.14          | 0.15          | 0.08          | 0.07          | 0.04          | 0.00          | 0.00          | 0.00          | -100.00                           | 0.00                                                         |
| INORGANIC PIGMENTS              | 16.302             | 17.682        | 18.054        | 8.53          | 7.80          | 12.23         | 13.93         | 13.06         | 13.14         | 14.18         | 14.82         | 8.22                              | 82.08                                                        |
| <b>Total</b>                    | <b>417.22</b>      | <b>428.96</b> | <b>455.95</b> | <b>173.07</b> | <b>168.39</b> | <b>219.98</b> | <b>244.87</b> | <b>240.88</b> | <b>239.53</b> | <b>283.60</b> | <b>285.23</b> | <b>7.40</b>                       | <b>62.56</b>                                                 |

**Table-4 : Installed Capacities of Selected Chemicals ( Group-Wise) from 2007-08 to 2014-15**

(Figures in 000'MT)

| <b>GROUP / PRODUCT</b>        | <b>2007-08</b> | <b>2008-09</b> | <b>2009-10</b> | <b>2010-11</b> | <b>2011-12</b> | <b>2012-13</b> | <b>2013-14</b> | <b>2014-15</b> |
|-------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| <b>1. Alkali Chemicals</b>    | 7751           | 7751           | 7768           | 7767           | 7833           | 7882           | 7882           | 7860           |
| <b>2. Inorganic Chemicals</b> | 1083           | 1083           | 1001           | 1141           | 1221           | 1208           | 1198           | 1224           |
| <b>3. Organic Chemicals</b>   | 2288           | 2312           | 2488           | 2532           | 2559           | 2421           | 2472           | 2543           |
| <b>4. Pesticides (Tech.)</b>  | 154            | 158            | 186            | 232            | 253            | 269            | 288            | 292            |
| <b>5. Dyes &amp; Pigments</b> | 223            | 243            | 344            | 374            | 407            | 417            | 429            | 456            |
| <b>TOTAL MAJOR CHEMICALS</b>  | <b>11499</b>   | <b>11547</b>   | <b>11786</b>   | <b>12045</b>   | <b>12272</b>   | <b>12198</b>   | <b>12269</b>   | <b>12375</b>   |

Note: Product coverage under each group is given at page vii.

**Table-5 : Consumption of Selected Major Chemicals (Product-Wise) during 2007-08 to 2014-15**

('000' (MT)

| PRODUCTS            | CONSUMPTION \$ |         |         |         |         |         |         |         |
|---------------------|----------------|---------|---------|---------|---------|---------|---------|---------|
|                     | 2007-08        | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
| ALKALI CHEMICALS    |                |         |         |         |         |         |         |         |
| SODA ASH            | 2288.23        | 2261.40 | 2357.07 | 2588.95 | 2598.56 | 3048.51 | 2877.33 | 3159.80 |
| CAUSTIC SODA        | 2192.44        | 2209.31 | 2472.04 | 2329.14 | 2539.16 | 2619.10 | 2620.25 | 2805.28 |
| LIQUID CHLORINE     | 1408.41        | 1437.32 | 1526.67 | 1636.27 | 1653.69 | 1669.61 | 1693.52 | 1714.90 |
| INORGANIC CHEMICALS |                |         |         |         |         |         |         |         |
| ALUMINIUM FLUORIDE  | 22.71          | 29.90   | 27.56   | 16.72   | 32.39   | 29.19   | 26.28   | 34.02   |
| CALCIUM CARBIDE     | 153.41         | 137.16  | 72.65   | 100.22  | 121.62  | 127.09  | 142.75  | 165.10  |
| CARBON BLACK        | 410.43         | 353.03  | 133.51  | 161.87  | 294.31  | 436.79  | 428.67  | 469.70  |
| POTASSIUM CHLORATE  | -5.52          | 3.18    | 8.25    | 6.40    | 5.80    | 7.26    | 6.99    | 5.96    |
| SODIUM CHLORATE     | 13.92          | 19.02   | 21.79   | 24.75   | 25.01   | 25.04   | 28.08   | 21.79   |
| TITANIUM DIOXIDE    | 64.65          | 60.53   | 70.56   | 74.82   | 69.77   | 64.50   | 60.60   | 60.30   |
| RED PHOSPHORUS      | 0.18           | 0.39    | 0.53    | 0.55    | 0.57    | 0.52    | 0.61    | 0.56    |
| HYDROGEN PEROXIDE   | 100.09         | 104.17  | 111.55  | 151.55  | 112.30  | 138.79  | 175.78  | 153.28  |
| CALCIUM CARBONATE   | 284.51         | 271.31  | 330.10  | 409.97  | 370.68  | 570.31  | 728.41  | 759.32  |
| ORGANIC CHEMICALS   |                |         |         |         |         |         |         |         |
| ACETIC ACID         | 463.19         | 486.49  | 523.07  | 614.21  | 704.88  | 800.68  | 814.63  | 865.50  |
| ACETIC ANHYDRIDE    | 40.48          | 43.11   | 56.56   | 51.77   | 52.17   | 85.46   | 76.21   | 76.43   |
| ACETONE             | 111.94         | 113.25  | 123.83  | 125.97  | 142.24  | 130.33  | 144.66  | 149.63  |
| PHENOL              | 175.73         | 165.47  | 171.94  | 202.01  | 211.54  | 232.24  | 258.34  | 240.37  |
| METHANOL            | 1108.81        | 1292.72 | 1107.17 | 1144.39 | 1439.15 | 1469.22 | 1535.78 | 1801.99 |
| FORMALDEHYDE        | 237.49         | 229.13  | 258.01  | 262.94  | 259.94  | 270.66  | 262.35  | 248.89  |
| NITROBENZENE        | 71.45          | 56.38   | 63.27   | 72.30   | 74.36   | 83.53   | 76.36   | 70.78   |
| CITRIC ACID         | 30.99          | 34.04   | 39.10   | 42.31   | 50.40   | 54.33   | 62.09   | 65.63   |

**Table-5 : Consumption of Selected Major Chemicals (Product-Wise) during 2007-08 to 2014-15**

('000' (MT)

| PRODUCTS            | CONSUMPTION \$ |         |         |         |         |         |         |         |
|---------------------|----------------|---------|---------|---------|---------|---------|---------|---------|
|                     | 2007-08        | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
| MALEIC ANHYDRIDE    | 27.38          | 35.71   | 30.13   | 40.66   | 37.18   | 39.33   | 39.64   | 41.56   |
| PENTAERYTHRITOL     | 19.79          | 19.35   | 21.80   | 24.15   | 25.11   | 24.76   | 26.37   | 25.58   |
| ANILINE             | 61.42          | 52.51   | 58.20   | 63.91   | 54.45   | 63.48   | 72.27   | 70.48   |
| CHLORO METHANES     | 100.57         | 129.02  | 134.99  | 161.82  | 188.67  | 197.85  | 214.14  | 220.68  |
| ISOBUTYLBENZENE     | -3.98          | -4.18   | -6.70   | -9.19   | -11.98  | -6.68   | -8.05   | -9.64   |
| ONCB                | 18.82          | 20.80   | 18.56   | 19.86   | 15.75   | 17.12   | 14.94   | 14.29   |
| PNCB                | 20.57          | 24.92   | 25.36   | 25.02   | 21.22   | 22.30   | 25.09   | 29.96   |
| MEK                 | 21.88          | 20.37   | 24.45   | 21.33   | 31.98   | 33.68   | 30.50   | 30.89   |
| ACETALDEHYDE        | 203.26         | 117.44  | 59.90   | 32.23   | 65.21   | 76.07   | 79.72   | 67.80   |
| ETHANOLAMINES       | 12.57          | 13.67   | 11.38   | 8.90    | 13.47   | 16.65   | 19.98   | 24.02   |
| ETHYL ACETATE       | 58.19          | 104.07  | 115.01  | 75.83   | 113.77  | 137.50  | 192.44  | 213.04  |
| MENTHOL             | 0.49           | 6.77    | 2.49    | 7.52    | 6.46    | 7.85    | 3.80    | 4.82    |
| ORTHO NITRO TOLUENE | 5.69           | 8.81    | 13.46   | 13.80   | 10.87   | 9.74    | 11.73   | 11.67   |

**Table-5A :Consumption of Selected Pesticides (Tech. Grade) (State -wise) during 2007-08 to 2014-15**

(In MT)

| S. No.               | States/UTs        | 2007-08                    | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|----------------------|-------------------|----------------------------|---------|---------|---------|---------|---------|---------|---------|
| 1                    | Andhra Pradesh    | 1,541                      | 1,381   | 1,015   | 8,869   | 9,289   | 2,803   | 4,253   | 3,895   |
| 2                    | Bihar             | 870                        | 915     | 828     | 675     | 655     | 687     | 765     | 787     |
| 3                    | Chhattisgarh      | 570                        | 270     | 205     | 570     | 600     | 812     | 1,016   | 1,020   |
| 4                    | Goa               | 2                          | 9       | 10      | 9       | 8       | 9       | 9       | 9       |
| 5                    | Gujarat           | 2,660                      | 2,650   | 2,750   | 2,600   | 2,190   | 1,210   | 2,330   | 1,840   |
| 6                    | Haryana           | 4,390                      | 4,288   | 4,070   | 4,060   | 4,050   | 4,050   | 4,080   | 4,070   |
| 7                    | Himachal Pradesh  | 296                        | 322     | 328     | 328     | 310     | 325     | 344     | 357     |
| 8                    | Jammu & Kashmir   | 1,248                      | 2,679   | 1,640   | 1,818   | 1,711   | 1,789   | 1,723   | 1,921   |
| 9                    | Jharkhand         | 81                         | 85      | 89      | 84      | 151     | 151     | 430     | 650     |
| 10                   | Karnataka         | 1,588                      | 1,675   | 1,647   | 1,858   | 1,412   | 1,615   | 1,735   | 1,709   |
| 11                   | Kerala            | 780                        | 273     | 631     | 657     | 807     | 712     | 1,276   | 919     |
| 12                   | Madhya Pradesh    | 696                        | 663     | 645     | 633     | 850     | 846     | 987     | 696     |
| 13                   | Maharashtra       | 3,050                      | 2,400   | 4,639   | 8,317   | 6,723   | 6,618   | 10,969  | 11,239  |
| 14                   | Orissa            | NA                         | 1,156   | 1,588   | 871     | 555     | 606     | 1,219   | 1,680   |
| 15                   | Punjab            | 6,080                      | 5,760   | 5,810   | 5,730   | 5,625   | 5,730   | 5,723   | 5,699   |
| 16                   | Rajasthan         | 3,804                      | 3,333   | 3,527   | 3,623   | 2,802   | 2,559   | 2,736   | 1,457   |
| 17                   | Tamil Nadu        | 2,048                      | 2,317   | 2,335   | 2,361   | 1,968   | 1,766   | 2,142   | 2,096   |
| 18                   | Telangana         | <i>Newly created State</i> |         |         |         |         |         | 3,812   | 2,805   |
| 19                   | Uttar Pradesh     | 7,332                      | 8,968   | 9,563   | 8,460   | 8,839   | 9,057   | 10,164  | 9,867   |
| 20                   | Uttarakhand       | 270                        | 221     | 222     | 199     | 206     | 247     | 174     | 133     |
| 21                   | West Bengal       | 3,945                      | 4,100   |         | 3,515   | 3,670   | 3,465   | 3,190   | 3,060   |
| <b>Sub Total</b>     |                   | 41,251                     | 43,465  | 41,542  | 55,236  | 52,421  | 45,057  | 59,077  | 55,908  |
| <b>North-Eastern</b> |                   |                            |         |         |         |         |         |         |         |
| 22                   | Arunachal Pradesh | 16                         | 10      | 10      | 10      | 17      | NA      | 18      | 18      |
| 23                   | Assam             | 158                        | 150     | 19      | 150     | 160     | 183     | 190     | 197     |
| 24                   | Manipur           | 26                         | 30      | 30      | 30      | 33      | 31      | 31      | 30      |

**Table-5A :Consumption of Selected Pesticides (Tech. Grade) (State -wise) during 2007-08 to 2014-15**

(In MT)

| S. No.                   | States/UTs           | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 |
|--------------------------|----------------------|---------|---------|---------|---------|---------|---------|---------|---------|
| 25                       | Meghalaya            | 6       | NA      | 6       | 10      | 9       | 24      | 44      | 28      |
| 26                       | Mizoram              | 44      | 44      | 39      | 4       | 4       |         | 508     | 806     |
| 27                       | Nagaland             | 5       | 18      | 14      | NA      | 15      | NA      | 16      | 16      |
| 28                       | Sikkim               |         | 3       | 4       | NA      | NA      | NA      | NA      | NA      |
| 29                       | Tripura              | 27      | 38      | 55      | 12      | 266     | 272     | 310     | 307     |
| <b>Sub Total</b>         |                      | 288     | 293     | 177     | 216     | 504     | 514     | 1,117   | 1,403   |
| <b>Union Territories</b> |                      |         |         |         |         |         |         |         |         |
| 30                       | Andaman & Nicobar    | NA      | 6       | 14      | NA      | 15      | 7       | NA      | NA      |
| 31                       | Chandigarh           | NA      | NA      | NA      | NA      | NA      | NA      | NA      | NA      |
| 32                       | Dadra & Nagar Haveli | NA      | NA      | NA      | NA      | NA      | NA      | NA      | NA      |
| 33                       | Daman & Diu          | NA      | NA      | NA      | NA      | NA      | NA      | NA      | NA      |
| 34                       | Delhi                | 57      | 57      | 49      | 48      | NA      | NA      | 48      | NA      |
| 35                       | Lakshadweep          | NA      | NA      | NA      | NA      | NA      | NA      | NA      | NA      |
| 36                       | Pondicherry          | 41      | 39      | 39      | 39      | 38      | 41      | 41      | 42      |
| <b>Sub Total</b>         |                      | 98      | 102     | 102     | 87      | 54      | 48      | 89      | 42      |
| <b>Grand Total</b>       |                      | 41,637  | 43,860  | 41,821  | 55,540  | 52,979  | 45,619  | 60,282  | 57,353  |

**Note:** States/UTs Zonal Conferences on Inputs (Plant Protection). NA- Not available

**Source:** Directorate of Plant Protection, Quarantine & Storage, Department of Agriculture Cooperation, Ministry of Agriculture and Farmers Welfare

## *Section – III*

# *Petrochemical Sector*

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**Table- 6: Performance of Selected Basic Major Petrochemicals (Group Wise) during 2007-08 to 2014-15 At a Glance**

(Figures In thousand MT)

| Group                                            | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | CARG<br>(%) (14-<br>15/07-08) |
|--------------------------------------------------|---------|---------|---------|---------|---------|---------|---------|---------|-------------------------------|
| (1)                                              | (2)     | (3)     | (4)     | (5)     | (6)     | (7)     | (8)     | (9)     | (10)                          |
| <b>1. SYNTHETIC FIBRES / YARN</b>                |         |         |         |         |         |         |         |         |                               |
| Capacity                                         | 3570    | 3240    | 3336    | 3527    | 3743    | 3892    | 3854    | 4298    | 2.69                          |
| Production                                       | 2660    | 2479    | 2835    | 3123    | 3105    | 3124    | 3144    | 3527    | 4.11                          |
| Capacity Utilisation (%)                         | 74.5    | 76.5    | 85.0    | 88.5    | 83.0    | 80.3    | 81.6    | 82.1    |                               |
| Imports                                          | 141     | 132     | 98      | 121     | 142     | 147     | 155     | 224     | 6.83                          |
| Exports                                          | 396     | 350     | 404     | 576     | 734     | 776     | 906     | 886     | 12.20                         |
| <b>2. POLYMERS</b>                               |         |         |         |         |         |         |         |         |                               |
| Capacity                                         | 5777    | 5680    | 6130    | 7406    | 7451    | 7861    | 8005    | 8005    | 4.77                          |
| Production                                       | 5304    | 5060    | 4791    | 5292    | 6211    | 6424    | 6784    | 6533    | 3.02                          |
| Capacity Utilisation (%)                         | 91.8    | 89.1    | 78.1    | 71.5    | 83.4    | 81.7    | 84.8    | 81.6    |                               |
| Imports                                          | 1152    | 1275    | 2160    | 2500    | 2435    | 3180    | 3125    | 3737    | 18.30                         |
| Exports                                          | 631     | 357     | 658     | 822     | 1163    | 1113    | 1188    | 903     | 5.25                          |
| <b>3. SYNTHETIC RUBBER</b>                       |         |         |         |         |         |         |         |         |                               |
| Capacity                                         | 186     | 128     | 128     | 128     | 128     | 124     | 244     | 425     | 12.54                         |
| Production                                       | 105     | 96      | 106     | 105     | 100     | 96      | 105     | 172     | 7.26                          |
| Capacity Utilisation (%)                         | 56.5    | 75.1    | 82.9    | 82.3    | 78.4    | 77.4    | 42.8    | 40      |                               |
| Imports                                          | 342     | 290     | 376     | 446     | 493     | 520     | 580     | 578     | 7.81                          |
| Exports                                          | 14      | 16      | 15      | 15      | 22      | 11      | 13      | 26      | 9.15                          |
| <b>4. SYNTHETIC DETERGENT INTERMEDIATES</b>      |         |         |         |         |         |         |         |         |                               |
| Capacity                                         | 611     | 587     | 637     | 637     | 672     | 687     | 687     | 687     | 1.69                          |
| Production                                       | 585     | 552     | 618     | 638     | 623     | 627     | 597     | 596     | 0.27                          |
| Capacity Utilisation (%)                         | 95.7    | 93.9    | 97.0    | 100.1   | 92.6    | 91.2    | 86.8    | 86.7    |                               |
| Imports                                          | 49      | 76      | 91      | 79      | 107     | 127     | 124     | 134     | 15.44                         |
| Exports                                          | 130     | 90      | 95      | 134     | 75      | 50      | 33      | 28      | -19.69                        |
| <b>5 : PERFORMANCE PLASTICS</b>                  |         |         |         |         |         |         |         |         |                               |
| Capacity                                         | 1262    | 1269    | 1269    | 1380    | 1401    | 1401    | 1403    | 1428    | 1.78                          |
| Production                                       | 733     | 804     | 990     | 976     | 969     | 945     | 783     | 766     | 0.63                          |
| Capacity Utilisation (%)                         | 58.1    | 63.4    | 78.1    | 70.7    | 69.2    | 67.4    | 55.8    | 53.7    |                               |
| Imports                                          | 89      | 131     | 112     | 192     | 175     | 250     | 311     | 395     | 23.64                         |
| Exports                                          | 272     | 290     | 294     | 366     | 310     | 348     | 475     | 409     | 6.01                          |
| <b>Total Basic Major Petrochemicals (1 to 5)</b> |         |         |         |         |         |         |         |         |                               |
| Capacity                                         | 11406   | 10903   | 11500   | 13079   | 13395   | 13965   | 14193   | 14843   | 3.83                          |
| Production                                       | 9386    | 8991    | 9340    | 10135   | 11008   | 11216   | 11412   | 11594   | 3.06                          |
| Capacity Utilisation (%)                         | 82.3    | 82.5    | 81.2    | 77.5    | 82.2    | 80.3    | 80.4    | 78.1    |                               |
| Imports                                          | 1773    | 1904    | 2837    | 3338    | 3353    | 4223    | 4295    | 5068    | 16.19                         |
| Exports                                          | 1444    | 1104    | 1466    | 1913    | 2304    | 2298    | 2614    | 2253    | 6.57                          |

Note: Product coverage under each group is given at page viii.

**Table -7 : Production, Installed Capacity & Growth of Selected Basic Major Petrochemicals (Group-wise) during 2007-08 to 2014-15**

(Figures in thousand MT)

| Group                               | Installed Capacity |         |         | Production /<br>Growth Rate | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2013-14 |
|-------------------------------------|--------------------|---------|---------|-----------------------------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                     | 2012-13            | 2013-14 | 2014-15 |                             |         |         |         |         |         |         |         |         |
| 1                                   | 2                  | 3       | 4       | 5                           | 6       | 7       | 8       | 9       | 10      | 11      | 12      | 13      |
| Synthetic Fibers                    | 3892               | 3854    | 4298    | Production                  | 2660    | 2479    | 2835    | 3123    | 3105    | 3124    | 3144    | 3527    |
|                                     |                    |         |         | Growth Rate (%)             | 14.0    | -6.8    | 14.4    | 10.2    | -0.6    | 0.0     | 0.6     | 12.2    |
| Polymers                            | 7861               | 8005    | 8005    | Production                  | 5304    | 5060    | 4791    | 5292    | 6211    | 6424    | 6784    | 6533    |
|                                     |                    |         |         | Growth Rate (%)             | 2.3     | -4.6    | -5.3    | 10.5    | 17.4    | 21.4    | 5.6     | -3.7    |
| Elastomers<br>(S.Rubber)            | 124                | 244     | 425     | Production                  | 105     | 96      | 106     | 105     | 100     | 96      | 105     | 172     |
|                                     |                    |         |         | Growth Rate (%)             | 7.3     | -8.5    | 10.4    | -0.7    | -4.7    | -8.7    | 8.7     | 64.1    |
| Synth. Detergent<br>Intermediates   | 687                | 687     | 687     | Production                  | 585     | 552     | 618     | 638     | 623     | 627     | 597     | 596     |
|                                     |                    |         |         | Growth Rate (%)             | 5.1     | -5.7    | 12.0    | 3.3     | -2.4    | -1.8    | -4.8    | -0.1    |
| Performance<br>Plastics             | 1401               | 1403    | 1428    | Production                  | 733     | 804     | 990     | 976     | 969     | 945     | 783     | 766     |
|                                     |                    |         |         | Growth Rate (%)             | 39.4    | 9.6     | 23.2    | -1.5    | -0.7    | -3.2    | -17.1   | -2.1    |
| Total Basic Major<br>Petrochemicals | 13965              | 14193   | 14843   | Production                  | 9386    | 8991    | 9340    | 10135   | 11008   | 11216   | 11412   | 11594   |
|                                     |                    |         |         | Growth Rate (%)             | 7.9     | -4.2    | 3.9     | 8.5     | 8.6     | 1.9     | 3.7     | 1.6     |

Note: Product coverage under each group is given at page viii.

**Table-8: Production, Capacity Utilization & Growth of Selected Major Petrochemicals (Product-Wise) during 2007-08 to 2014-15**

( In thousand MT)

| Major Groups / Products                     | Installed Capacity   |             |             | Production  |             |             |             |             |             |             |             | CAGR<br>(%) (14<br>15/07-08) | Capacity<br>Utilisation<br>in 2014-15<br>(Col.12/Col.<br>4) |
|---------------------------------------------|----------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------------|-------------------------------------------------------------|
|                                             | 2012-13              | 2013-14     | 2014-15     | 2007-08     | 2008-09     | 2009-10     | 2010-11     | 2011-12     | 2012-13     | 2013-14     | 2014-15     |                              |                                                             |
| 1                                           | 2                    | 3           | 4           | 5           | 6           | 7           | 8           | 9           | 10          | 11          | 12          | 13                           | 14                                                          |
| <b>A : BASIC MAJOR PETROCHEMICALS</b>       |                      |             |             |             |             |             |             |             |             |             |             |                              |                                                             |
| <b>I : SYNTHETIC FIBRES / YARN</b>          |                      |             |             |             |             |             |             |             |             |             |             |                              |                                                             |
| 1. Polyester Filament Yarn (PFY) (\$)       | 2363                 | 2354        | 2791        | 1474        | 1387        | 1562        | 1804        | 1874        | 1878        | 1811        | 2179        | 5.74                         | 78.05                                                       |
| 2. Nylon Filament Yarn (NFY) (\$\$)         | 20                   | 20          | 20          | 28          | 28          | 30          | 33          | 30          | 22          | 24          | 32          | 2.23                         | 162.25                                                      |
| 3. Nylon Industrial Yarn (NIY) (\$\$)       | 61                   | 61          | 61          | 95          | 77          | 99          | 97          | 97          | 95          | 104         | 101         | 0.75                         | 164.79                                                      |
| 4. Polypropylene Filament Yarn (PPFY)(\$\$) | 8                    | 8           | 8           | 10          | 9           | 9           | 6           | 7           | 6           | 6           | 5           | -8.84                        | 64.90                                                       |
| <b>Sub Total Yarn (1+2+3+4)</b>             | <b>2451</b>          | <b>2443</b> | <b>2880</b> | <b>1607</b> | <b>1501</b> | <b>1700</b> | <b>1941</b> | <b>2008</b> | <b>2001</b> | <b>1945</b> | <b>2317</b> | 5.37                         | <b>80.44</b>                                                |
| 5. Acrylic Fibre (Inc. Dry Spun) (AF)       | 107                  | 107         | 107         | 85          | 78          | 91          | 76          | 76          | 75          | 94          | 90          | 0.74                         | 83.76                                                       |
| 6. Polyester Staple Fibre (PSF)             | 1209                 | 1170        | 1170        | 919         | 843         | 980         | 1037        | 953         | 974         | 1010        | 1021        | 1.51                         | 87.27                                                       |
| 7. Polypropylene Staple Fibre (PPSF)        | 31                   | 31          | 32          | 3           | 3           | 3           | 4           | 4           | 8           | 23          | 25          | 32.77                        | 79.14                                                       |
| 8. Polyester Staple Fibrefil (PSFF)         | 72                   | 81          | 87          | 45          | 51          | 54          | 53          | 49          | 51          | 56          | 57          | 3.57                         | 65.86                                                       |
| 9. Polyester Industrial Yarn (PIY)          | 22                   | 22          | 22          | 0           | 2           | 5           | 13          | 14          | 15          | 15          | 17          |                              | 77.11                                                       |
| <b>Total Synth. Fibre / Yarn</b>            | <b>3892</b>          | <b>3854</b> | <b>4298</b> | <b>2660</b> | <b>2479</b> | <b>2835</b> | <b>3123</b> | <b>3105</b> | <b>3124</b> | <b>3144</b> | <b>3527</b> | 4.11                         | <b>82.06</b>                                                |
| <b>II : POLYMERS</b>                        |                      |             |             |             |             |             |             |             |             |             |             |                              |                                                             |
| 1. Linear Low Density Polyethylene (LLDPE)  | No separate Capacity |             |             | 837         | 817         | 683         | 897         | 1033        | 1012        | 1037        | 910         | 2.39                         |                                                             |
| 2. High Density Polyethylene (HDPE)         | No separate Capacity |             |             | 974         | 942         | 856         | 887         | 1119        | 1177        | 1195        | 1156        | 2.71                         |                                                             |
| <b>LLDPE/HDPE (Combined) (\$\$\$)</b>       | <b>2735</b>          | <b>2735</b> | <b>2735</b> | <b>1811</b> | <b>1758</b> | <b>1539</b> | <b>1784</b> | <b>2152</b> | <b>2189</b> | <b>2232</b> | <b>2066</b> | <b>2.57</b>                  | <b>75.54</b>                                                |
| 3. Low Density Polyethylene (LDPE)          | 160                  | 160         | 160         | 198         | 191         | 193         | 179         | 194         | 187         | 190         | 184         | -1.02                        | 115.25                                                      |
| 4. Polystyrene(PS)                          | 462                  | 462         | 462         | 274         | 240         | 270         | 296         | 288         | 290         | 270         | 281         | 0.34                         | 60.86                                                       |
| 5. Polypropylene(PP)                        | 3116                 | 3116        | 3116        | 1978        | 1771        | 1617        | 1684        | 2209        | 2421        | 2648        | 2590        | 3.93                         | 83.13                                                       |

**Table-8: Production, Capacity Utilization & Growth of Selected Major Petrochemicals (Product-Wise) during 2007-08 to 2014-15****( In thousand MT)**

| Major Groups / Products                       | Installed Capacity |             |             | Production  |             |             |             |             |             |             |             | CAGR<br>(%) (14<br>15/07-08) | Capacity<br>Utilisation<br>in 2014-15<br>(Col.12/Col.<br>4) |
|-----------------------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------------|-------------------------------------------------------------|
|                                               | 2012-13            | 2013-14     | 2014-15     | 2007-08     | 2008-09     | 2009-10     | 2010-11     | 2011-12     | 2012-13     | 2013-14     | 2014-15     |                              |                                                             |
| 1                                             | 2                  | 3           | 4           | 5           | 6           | 7           | 8           | 9           | 10          | 11          | 12          | 13                           | 14                                                          |
| 6. Poly Vinyl Chloride(PVC)                   | 1279               | 1423        | 1423        | 998         | 1051        | 1110        | 1278        | 1296        | 1257        | 1367        | 1330        | 4.19                         | 93.50                                                       |
| 7. Expandable Polystyrene (EX-PS)             | 108                | 108         | 109         | 44          | 49          | 63          | 71          | 72          | 81          | 77          | 81          | 8.98                         | 74.16                                                       |
| <b>Total Polymers</b>                         | <b>7861</b>        | <b>8005</b> | <b>8005</b> | <b>5304</b> | <b>5060</b> | <b>4791</b> | <b>5292</b> | <b>6211</b> | <b>6424</b> | <b>6784</b> | <b>6533</b> | 3.02                         | <b>81.61</b>                                                |
| <b>III : SYNTHETIC RUBBER</b>                 |                    |             |             |             |             |             |             |             |             |             |             |                              |                                                             |
| 1. Styrene Butadiene Rubber (SBR)             | 10                 | 130         | 271         | 17          | 13          | 19          | 12          | 9           | 8           | 12          | 57          | 18.54                        | 21.12                                                       |
| 2. Poly Butadiene Rubber (PBR)                | 74                 | 74          | 114         | 74          | 72          | 73          | 76          | 79          | 77          | 81          | 108         | 5.40                         | 94.33                                                       |
| 3. Nitrile Butadiene Rubber (NBR)             | 25                 | 25          | 25          | 13          | 11          | 13          | 6           | 0           | 0           | 1           | 0           | -39.79                       | 1.50                                                        |
| 4. Ethyl Vinyl Acetate (EVA)                  | 15                 | 15          | 15          | 0           | 0           | 0           | 11          | 12          | 11          | 11          | 6           |                              | 42.82                                                       |
| <b>Total Synthetic Rubber</b>                 | <b>124</b>         | <b>244</b>  | <b>425</b>  | <b>105</b>  | <b>96</b>   | <b>106</b>  | <b>105</b>  | <b>100</b>  | <b>96</b>   | <b>105</b>  | <b>172</b>  | 7.26                         | <b>40.34</b>                                                |
| <b>IV : SYNTHETIC DETERGENT INTERMEDIATES</b> |                    |             |             |             |             |             |             |             |             |             |             |                              |                                                             |
| 1. Linear Alkyl Benzene (LAB)                 | 547                | 547         | 547         | 471         | 434         | 464         | 475         | 454         | 455         | 406         | 411         | -1.94                        | 75.00                                                       |
| 2. Ethylene Oxide (EO)                        | 140                | 140         | 140         | 114         | 117         | 154         | 164         | 169         | 172         | 191         | 185         | 7.18                         | 132.37                                                      |
| <b>Total Synth. Detergent Intermediates</b>   | <b>687</b>         | <b>687</b>  | <b>687</b>  | <b>585</b>  | <b>552</b>  | <b>618</b>  | <b>638</b>  | <b>623</b>  | <b>627</b>  | <b>597</b>  | <b>596</b>  | 0.27                         | <b>86.68</b>                                                |

**Table-8: Production, Capacity Utilization & Growth of Selected Major Petrochemicals (Product-Wise) during 2007-08 to 2014-15**

( In thousand MT)

| Major Groups / Products                 | Installed Capacity |              |              | Production  |             |             |              |              |              |              |              | CAGR<br>(%) (14<br>15/07-08) | Capacity<br>Utilisation<br>in 2014-15<br>(Col.12/Col.<br>4) |
|-----------------------------------------|--------------------|--------------|--------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|------------------------------|-------------------------------------------------------------|
|                                         | 2012-13            | 2013-14      | 2014-15      | 2007-08     | 2008-09     | 2009-10     | 2010-11      | 2011-12      | 2012-13      | 2013-14      | 2014-15      |                              |                                                             |
| 1                                       | 2                  | 3            | 4            | 5           | 6           | 7           | 8            | 9            | 10           | 11           | 12           | 13                           | 14                                                          |
| <b>V : PERFORMANCE PLASTICS</b>         |                    |              |              |             |             |             |              |              |              |              |              |                              |                                                             |
| 1. ABS Resin                            | 128                | 128          | 128          | 78          | 68          | 84          | 90           | 89           | 91           | 102          | 107          | 4.58                         | 83.82                                                       |
| 2. Nylon-6 & Nylon 66                   | 20                 | 23           | 23           | 17          | 16          | 18          | 21           | 18           | 19           | 20           | 21           | 2.74                         | 91.39                                                       |
| 3. Polymethyl Methacrylate (PMMA)       | 4                  | 4            | 4            | 3           | 2           | 3           | 3            | 3            | 3            | 2            | 1            | -12.39                       | 29.91                                                       |
| 4. Styrene Acrylonitrile (SAN)          | 96                 | 96           | 136          | 61          | 58          | 72          | 82           | 77           | 80           | 88           | 89           | 5.40                         | 65.28                                                       |
| 5. PET Chips/Polyester Chips            | 1133               | 1133         | 1118         | 573         | 657         | 812         | 774          | 773          | 747          | 564          | 547          | -0.67                        |                                                             |
| 6. PTFE (TEFLON)                        | 20                 | 20           | 20           | 1           | 2           | 2           | 6            | 9            | 6            | 6            | 2            | 14.90                        |                                                             |
| <b>Total Performance Plastics</b>       | <b>1401</b>        | <b>1403</b>  | <b>1428</b>  | <b>733</b>  | <b>804</b>  | <b>990</b>  | <b>976</b>   | <b>969</b>   | <b>945</b>   | <b>783</b>   | <b>766</b>   | <b>0.63</b>                  | <b>53.68</b>                                                |
| <b>TOTAL BASIC MAJOR PETROCHEMICALS</b> |                    |              |              |             |             |             |              |              |              |              |              |                              |                                                             |
| <b>(I+II+III+IV+V)</b>                  | <b>13965</b>       | <b>14193</b> | <b>14843</b> | <b>9386</b> | <b>8991</b> | <b>9340</b> | <b>10135</b> | <b>11008</b> | <b>11216</b> | <b>11412</b> | <b>11594</b> | <b>4.20</b>                  | <b>78.11</b>                                                |
| <b>B : INTERMEDIATES</b>                |                    |              |              |             |             |             |              |              |              |              |              |                              |                                                             |
| <b>I : FIBRE INTERMEDIATES</b>          |                    |              |              |             |             |             |              |              |              |              |              |                              |                                                             |
| 1. Acrylonitrile (ACN)                  | 41                 | 41           | 41           | 39          | 30          | 39          | 38           | 38           | 33           | 37           | 34           | -2.07                        | 82.19                                                       |
| 2. Caprolactum                          | 120                | 120          | 120          | 86          | 84          | 123         | 123          | 118          | 99           | 85           | 87           | 0.09                         | 72.54                                                       |
| 3. Mono Ethylene Glycol (MEG)           | 1120               | 1153         | 1153         | 923         | 783         | 738         | 746          | 997          | 1061         | 1069         | 1001         | 1.17                         | 86.80                                                       |
| 4. Purified Terephthalic Acid (PTA)     | 3753               | 3753         | 3753         | 2059        | 2154        | 2985        | 3191         | 3308         | 3494         | 3477         | 3755         | 8.96                         | 100.06                                                      |
| <b>Total Fibre Intermediates</b>        | <b>5034</b>        | <b>5067</b>  | <b>5067</b>  | <b>3107</b> | <b>3052</b> | <b>3886</b> | <b>4097</b>  | <b>4461</b>  | <b>4687</b>  | <b>4668</b>  | <b>4877</b>  | <b>6.65</b>                  | <b>96.25</b>                                                |

**Table-8: Production, Capacity Utilization & Growth of Selected Major Petrochemicals (Product-Wise) during 2007-08 to 2014-15****( In thousand MT)**

| Major Groups / Products                | Installed Capacity |             |             | Production  |             |             |             |             |             |             |             | CAGR<br>(%) (14<br>15/07-08) | Capacity<br>Utilisation<br>in 2014-15<br>(Col.12/Col.<br>4) |
|----------------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------------------------|-------------------------------------------------------------|
|                                        | 2012-13            | 2013-14     | 2014-15     | 2007-08     | 2008-09     | 2009-10     | 2010-11     | 2011-12     | 2012-13     | 2013-14     | 2014-15     |                              |                                                             |
| 1                                      | 2                  | 3           | 4           | 5           | 6           | 7           | 8           | 9           | 10          | 11          | 12          | 13                           | 14                                                          |
| <b>II : BUILDING BLOCKS</b>            |                    |             |             |             |             |             |             |             |             |             |             |                              |                                                             |
| <b>OLEFINS</b>                         |                    |             |             |             |             |             |             |             |             |             |             |                              |                                                             |
| 1. Ethylene                            | 3783               | 3783        | 3783        | 2810        | 2639        | 2515        | 2665        | 3320        | 3315        | 3346        | 3192        | 1.83                         | 84.37                                                       |
| 2. Propylene                           | 3326               | 3368        | 3368        | 2157        | 1887        | 1859        | 1930        | 2528        | 2655        | 2897        | 2845        | 4.03                         | 84.48                                                       |
| 3. Butadiene                           | 295                | 433         | 433         | 244         | 214         | 205         | 242         | 250         | 235         | 236         | 239         | -0.27                        | 55.30                                                       |
| <b>Total Olefins</b>                   | <b>7404</b>        | <b>7584</b> | <b>7584</b> | <b>5211</b> | <b>4740</b> | <b>4580</b> | <b>4837</b> | <b>6097</b> | <b>6205</b> | <b>6478</b> | <b>6276</b> | <b>2.69</b>                  | <b>82.76</b>                                                |
| <b>AROMATICS</b>                       |                    |             |             |             |             |             |             |             |             |             |             |                              |                                                             |
| 1. Benzene                             | 1283               | 1283        | 1566        | 867         | 880         | 823         | 945         | 1002        | 1048        | 1031        | 1094        | 3.38                         | 69.88                                                       |
| 2. Toluene                             | 258                | 258         | 258         | 142         | 139         | 137         | 128         | 132         | 108         | 120         | 108         | -3.79                        | 41.93                                                       |
| 3. Mixed Xylene                        | 891                | 898         | 898         | 210         | 135         | 176         | 125         | 207         | 200         | 248         | 215         | 0.34                         | 23.93                                                       |
| 4. Ortho-xylene                        | 420                | 420         | 420         | 269         | 224         | 358         | 400         | 390         | 444         | 412         | 462         | 8.06                         | 110.11                                                      |
| 5. Paraxylene                          | 2218               | 2218        | 3132        | 2137        | 2155        | 2223        | 2137        | 2394        | 2360        | 2264        | 2758        | 3.71                         | 88.06                                                       |
| <b>Total Aromatics</b>                 | <b>5070</b>        | <b>5077</b> | <b>6274</b> | <b>3624</b> | <b>3533</b> | <b>3716</b> | <b>3736</b> | <b>4125</b> | <b>4161</b> | <b>4075</b> | <b>4638</b> | <b>3.58</b>                  | <b>73.92</b>                                                |
| <b>C : OTHER PETRO-BASED CHEMICALS</b> |                    |             |             |             |             |             |             |             |             |             |             |                              |                                                             |
| 1. Butanol                             | 26                 | 26          | 26          | 14          | 11          | 8           | 18          | 22          | 14          | 5           | 4           | -15.48                       | 16.17                                                       |
| 2. C4-Raffinate                        | 261.6              | 261.6       | 291.6       | 77          | 55          | 65          | 71          | 209         | 395         | 393         | 365         | 24.95                        | 125.04                                                      |
| 3. Di-Ethylene Glycol                  | 80.204             | 84.504      | 84.504      | 68          | 58          | 69          | 73          | 99          | 103         | 107         | 101         | 5.72                         | 119.48                                                      |
| 4. Diacetone Alcohol                   | 9                  | 9           | 9.5         | 9           | 8           | 9           | 4           | 5           | 3           | 0           | 0           | -100.00                      | 0.00                                                        |
| 5. Ethylene Dichloride (By Product)    | 593.2              | 593.2       | 593.2       | 267         | 277         | 445         | 454         | 435         | 316         | 278         | 285         | 0.95                         | 48.09                                                       |
| 6. 2-Ethyl Hexanol**                   | 55.2               | 55.2        | 55.2        | 27          | 23          | 16          | 29          | 49          | 50          | 20          | 14          | -8.91                        | 25.16                                                       |

**Table-8: Production, Capacity Utilization & Growth of Selected Major Petrochemicals (Product-Wise) during 2007-08 to 2014-15****( In thousand MT)**

| Major Groups / Products                                                                                                                                       | Installed Capacity |             |             | Production  |             |             |             |             |             |             |             | CAGR<br>(%) (14-15/07-08) | Capacity<br>Utilisation<br>in 2014-15<br>(Col.12/Col.4) |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------------|---------------------------------------------------------|
|                                                                                                                                                               | 2012-13            | 2013-14     | 2014-15     | 2007-08     | 2008-09     | 2009-10     | 2010-11     | 2011-12     | 2012-13     | 2013-14     | 2014-15     |                           |                                                         |
| 1                                                                                                                                                             | 2                  | 3           | 4           | 5           | 6           | 7           | 8           | 9           | 10          | 11          | 12          | 13                        | 14                                                      |
| 7. Epichlorohydrine                                                                                                                                           | 10                 | 0           | 0           | 9           | 8           | 7           | 8           | 9           | 11          | 0           | 0           | -100.00                   |                                                         |
| 8. Iso-Butanol                                                                                                                                                | 2.8                | 2.8         | 2.8         | 3           | 3           | 3           | 3           | 2           | 2           | 1           | 1           | -18.10                    | 23.96                                                   |
| 9. Isopropanol (IPA)                                                                                                                                          | 70                 | 70          | 70          | 49          | 51          | 62          | 67          | 71          | 70          | 76          | 75          | 6.13                      | 107.12                                                  |
| 10. Methyl Methacrylate (MMA)                                                                                                                                 | 4.375              | 4.375       | 4.375       | 4           | 3           | 5           | 5           | 4           | 3           | 3           | 3           | -2.53                     | 79.38                                                   |
| 11. Phthalic Anhydride (PAN)                                                                                                                                  | 309.046            | 362.046     | 349.046     | 244         | 207         | 232         | 253         | 250         | 254         | 264         | 292         | 2.55                      | 83.52                                                   |
| 12. Propylene Oxide (PO)                                                                                                                                      | 27                 | 27          | 36          | 28          | 29          | 32          | 32          | 35          | 30          | 33          | 37          | 3.75                      | 101.69                                                  |
| 13. Propylene Glycol (PG)                                                                                                                                     | 14.8               | 14.8        | 20          | 17          | 16          | 19          | 17          | 19          | 15          | 14          | 16          | -0.54                     | 81.24                                                   |
| 14. Polyvinyl Acetate Resin                                                                                                                                   | 17.34              | 17.34       | 17.34       | 11          | 10          | 4           | 2           | 0           | 0           | 0           | 0           | -100.00                   |                                                         |
| 15. Vinyl Acetate Monomer (VAM)                                                                                                                               | 30                 | 30          | 30          | 23          | 24          | 0           | 0           | 0           | 0           | 0           | 0           | -100.00                   |                                                         |
| 16. Vinyl Chloride Monomer (VCM) (By Product)                                                                                                                 | 541.3              | 541.3       | 541.3       | 289         | 303         | 674         | 672         | 689         | 669         | 735         | 718         | 13.90                     | 132.62                                                  |
| 17. Polyol                                                                                                                                                    | 69.5               | 69.5        | 113.5       | 14          | 22          | 31          | 31          | 41          | 42          | 40          | 52          | 20.24                     |                                                         |
| <b>Total Other Petro-based Chemicals</b>                                                                                                                      | <b>2121</b>        | <b>2169</b> | <b>2244</b> | <b>1154</b> | <b>1108</b> | <b>1679</b> | <b>1739</b> | <b>1940</b> | <b>1979</b> | <b>1970</b> | <b>1962</b> | <b>7.88</b>               | <b>87.43</b>                                            |
| <b>( \$ ) : Includes capacity of all the units producing PFY, NFY, NIY and PPFY under broadbanding as Synthetic Filament Yarn</b>                             |                    |             |             |             |             |             |             |             |             |             |             |                           |                                                         |
| <b>( \$\$ ) : Independent capacity of units producing only NFY, NIY and PPFY.</b>                                                                             |                    |             |             |             |             |             |             |             |             |             |             |                           |                                                         |
| <b>As the capacities of these products are also included in Synthetic Filament yarn, capacity utilisation can not be worked out.</b>                          |                    |             |             |             |             |             |             |             |             |             |             |                           |                                                         |
| <b>( \$\$\$ ) : Combined capacity to produce both LLDPE and HDPE and hence capacity utilisation can not be worked out. However production is independent.</b> |                    |             |             |             |             |             |             |             |             |             |             |                           |                                                         |
| <b>( ** ) : Combined capacity of 2-EH, Butanol &amp; Iso Butanol is given under 2 - EH)</b>                                                                   |                    |             |             |             |             |             |             |             |             |             |             |                           |                                                         |

**Table -9 : Installed Capacities of Selected Major Petrochemicals (Group Wise) from 2007-08 to 2014-15**

(Figures in 000'MT)

| GROUP / PRODUCT                        | 2007-08      | 2008-09      | 2009-10      | 2010-11      | 2011-12      | 2012-13      | 2013-14      | 2014-15      |
|----------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>A : BASIC PETROCHEMICALS</b>        |              |              |              |              |              |              |              |              |
| I : SYNTHETIC FIBRES                   | 3570         | 3240         | 3336         | 3527         | 3743         | 3892         | 3854         | 4298         |
| II : POLYMERS                          | 5777         | 5680         | 6130         | 7406         | 7451         | 7861         | 8005         | 8005         |
| III : SYNTHETIC RUBBER (ELASTOMERS)    | 186          | 128          | 128          | 128          | 128          | 124          | 244          | 425          |
| IV : SYNTH. DETERGENT INTERMEDIATE     | 611          | 587          | 637          | 637          | 672          | 687          | 687          | 687          |
| V : PERFORMANCE PLASTICS               | 1262         | 1269         | 1269         | 1380         | 1401         | 1401         | 1403         | 1428         |
| <b>MAJOR PETROCHEMICALS (I TO V)</b>   | <b>11406</b> | <b>10903</b> | <b>11500</b> | <b>13079</b> | <b>13395</b> | <b>13965</b> | <b>14193</b> | <b>14843</b> |
| <b>B : INTERMEDIATES</b>               |              |              |              |              |              |              |              |              |
| VI : FIBRE INTERMEDIATES               | 4368         | 4054         | 4854         | 5034         | 5034         | 5034         | 5067         | 5067         |
| VII : OLEFINS                          | 5517         | 5343         | 5659         | 6964         | 6964         | 7404         | 7584         | 7584         |
| VIII : AROMATICS                       | 4345         | 4892         | 4939         | 5066         | 5069         | 5070         | 5077         | 6274         |
| <b>C : OTHER PETRO-BASED CHEMICALS</b> | <b>1735</b>  | <b>1783</b>  | <b>1955</b>  | <b>2028</b>  | <b>2062</b>  | <b>2121</b>  | <b>2169</b>  | <b>2244</b>  |

**Table- 10: Consumption of Selected Major Petrochemicals (Product-wise) during 2007-08 to 2014-15**

| PRODUCT NAME                                 | CONSUMPTION ₹ |             |             |             |             |             |             |             |
|----------------------------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                                              | 2007-2008     | 2008-2009   | 2009-2010   | 2010-2011   | 2011-2012   | 2012-2013   | 2013-2014   | 2014-2015   |
| <b>I. SYNTHETIC FIBRE</b>                    |               |             |             |             |             |             |             |             |
| ACRYLIC FIBRE                                | 89            | 85          | 95          | 75          | 70          | 85          | 96          | 89          |
| POLYESTER STAPLE FIBREFILL                   | 45            | 51          | 54          | 53          | 49          | 51          | 56          | 57          |
| NYLON FILAMENT YARN                          | 29            | 32          | 35          | 49          | 51          | 44          | 47          | 58          |
| NYLON INDUSTRIAL YARN/TYRE CORD              | 97            | 78          | 107         | 105         | 102         | 103         | 108         | 103         |
| POLYESTER FILAMENT YARN                      | 1341          | 1276        | 1385        | 1446        | 1394        | 1351        | 1210        | 1603        |
| POLYESTER STAPLE FIBRE                       | 790           | 723         | 834         | 916         | 822         | 833         | 847         | 920         |
| POLYPROPYLENE FILAMENT YARN                  | 11            | 10          | 9           | 6           | 8           | 6           | 5           | 4           |
| POLYPROPYLENE STAPLE FIBRE                   | 3             | 3           | 3           | 3           | 4           | 6           | 9           | 15          |
| POLYSTER INDUSTRIAL YARN                     | 0             | 2           | 5           | 13          | 14          | 15          | 15          | 17          |
| <b>Total</b>                                 | <b>2404</b>   | <b>2260</b> | <b>2528</b> | <b>2668</b> | <b>2513</b> | <b>2496</b> | <b>2393</b> | <b>2864</b> |
| <b>II. POLYMERS</b>                          |               |             |             |             |             |             |             |             |
| LOW DENSITY POLYETHYLENE                     | 269           | 273         | 348         | 363         | 379         | 434         | 428         | 489         |
| HIGH DENSITY POLYTHYLENE                     | 1094          | 1115        | 1303        | 1268        | 1302        | 1657        | 1657        | 1947        |
| POLYESTYRENE                                 | 212           | 194         | 232         | 262         | 257         | 252         | 224         | 247         |
| POLYPROPYLENE (INC. CO-POLYMER)              | 1825          | 1901        | 1478        | 1527        | 1791        | 2091        | 2184        | 2475        |
| EXPANDABLE POLYESTYRENE                      | 51            | 53          | 66          | 78          | 77          | 82          | 78          | 79          |
| POLY VINYL CHLORIDE                          | 1349          | 1388        | 1738        | 1939        | 2144        | 2389        | 2574        | 2622        |
| LINEAR LOW DENSITY POLYTHYLENE               | 981           | 1013        | 1059        | 1467        | 1474        | 1529        | 1523        | 1450        |
| PVC COMPOUND                                 | 43            | 41          | 70          | 65          | 59          | 59          | 54          | 58          |
| <b>Total</b>                                 | <b>5824</b>   | <b>5977</b> | <b>6293</b> | <b>6970</b> | <b>7483</b> | <b>8491</b> | <b>8722</b> | <b>9367</b> |
| <b>III. SYNTHETIC RUBBER</b>                 |               |             |             |             |             |             |             |             |
| STYRENE BUTADIENE RUBBER                     | 122           | 104         | 157         | 195         | 214         | 207         | 244         | 263         |
| POLY BUTADIENE RUBBER                        | 103           | 94          | 122         | 123         | 145         | 147         | 167         | 176         |
| ETHYL PROPYLENE DIMERS                       | 16            | 13          | 19          | 26          | 26          | 27          | 28          | 30          |
| ETHYL VINYL ACETATE                          | 115           | 88          | 78          | 100         | 95          | 118         | 125         | 145         |
| NITRILE BUTADIENE RUBBER                     | 25            | 17          | 25          | 22          | 9           | 26          | 30          | 27          |
| BUTYL RUBBER                                 | 52            | 53          | 66          | 70          | 82          | 78          | 79          | 83          |
| <b>Total</b>                                 | <b>433</b>    | <b>371</b>  | <b>467</b>  | <b>537</b>  | <b>571</b>  | <b>604</b>  | <b>672</b>  | <b>724</b>  |
| <b>IV. SYNTHETIC DETERGENT INTERMEDIATES</b> |               |             |             |             |             |             |             |             |
| LINEAR ALKYL BENZENE                         | 390           | 420         | 461         | 420         | 486         | 532         | 497         | 517         |
| ETHYLENE OXIDE                               | 114           | 117         | 154         | 163         | 169         | 171         | 190         | 185         |
| <b>Total</b>                                 | <b>504</b>    | <b>538</b>  | <b>615</b>  | <b>583</b>  | <b>655</b>  | <b>704</b>  | <b>687</b>  | <b>702</b>  |

**Table- 10: Consumption of Selected Major Petrochemicals (Product-wise) during 2007-08 to 2014-15**

| PRODUCT NAME                            | CONSUMPTION ₹ |             |              |              |              |              |              |              |
|-----------------------------------------|---------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|
|                                         | 2007-2008     | 2008-2009   | 2009-2010    | 2010-2011    | 2011-2012    | 2012-2013    | 2013-2014    | 2014-2015    |
| <b>V. PERFOR MANCE PLASTICS</b>         |               |             |              |              |              |              |              |              |
| ABS RESIN                               | 90            | 88          | 114          | 131          | 134          | 147          | 165          | 177          |
| NYLON-6                                 | 43            | 47          | 58           | 77           | 86           | 97           | 119          | 137          |
| POLYMETHYL METHACRYLATE                 | 5             | 3           | 4            | 15           | 10           | 11           | 12           | 7            |
| STYRENE ACRYLONITRILE                   | 68            | 64          | 74           | 87           | 82           | 86           | 93           | 95           |
| NYLON 6,6                               | 1             | 1           | 1            | 1            | 1            | 1            | 1            | 1            |
| POLYESTER CHIPS/PET CHIPS               | 340           | 440         | 553          | 488          | 518          | 502          | 227          | 338          |
| POLYTETRAFLUOROETHYLENE(PTFE)           | 3             | 2           | 3            | 3            | 4            | 3            | 2            | -3           |
| <b>Total</b>                            | <b>550</b>    | <b>646</b>  | <b>808</b>   | <b>801</b>   | <b>835</b>   | <b>846</b>   | <b>619</b>   | <b>752</b>   |
| <b>TOTAL BASIC MAJOR PETROCHEMICALS</b> |               |             |              |              |              |              |              |              |
| <b>(I+II+III+IV+V)</b>                  | <b>9716</b>   | <b>9791</b> | <b>10711</b> | <b>11559</b> | <b>12057</b> | <b>13141</b> | <b>13093</b> | <b>14409</b> |
| <b>FIBRE INTERMEDIATE</b>               |               |             |              |              |              |              |              |              |
| ACRYLONITRILE                           | 121           | 109         | 104          | 110          | 110          | 113          | 138          | 131          |
| CAPROLACTUM                             | 109           | 94          | 122          | 115          | 110          | 111          | 108          | 119          |
| DIMETHYL TEREPHTHALATE                  | 7             | 4           | 4            | 4            | 3            | 2            | 2            | 2            |
| MONO EHYLENE GLYCOL                     | 1133          | 1173        | 1415         | 1482         | 1565         | 1644         | 1823         | 1931         |
| PURIFIED TEREPHTHALIC ACID              | 2118          | 2295        | 3460         | 3934         | 3888         | 4138         | 4455         | 4800         |
| <b>Total</b>                            | <b>3488</b>   | <b>3675</b> | <b>5105</b>  | <b>5646</b>  | <b>5675</b>  | <b>6009</b>  | <b>6525</b>  | <b>6984</b>  |
| <b>OLEFINS</b>                          |               |             |              |              |              |              |              |              |
| BUTADIENE                               | 116           | 98          | 95           | 111          | 133          | 127          | 117          | 170          |
| ETHYLENE                                | 2812          | 2659        | 2550         | 2780         | 3334         | 3338         | 3371         | 3236         |
| PROPYLENE                               | 2150          | 1888        | 1835         | 1906         | 2519         | 2650         | 2897         | 2847         |
| <b>Total</b>                            | <b>5077</b>   | <b>4644</b> | <b>4480</b>  | <b>4796</b>  | <b>5987</b>  | <b>6115</b>  | <b>6385</b>  | <b>6253</b>  |
| <b>AROMATICS</b>                        |               |             |              |              |              |              |              |              |
| BENZENE                                 | 564           | 522         | 546          | 426          | 544          | 446          | 400          | 518          |
| MIXED XYLENE                            | 16            | 25          | 120          | 53           | 58           | 59           | 66           | 206          |
| ORTHO-XYLENE                            | 245           | 207         | 221          | 98           | 238          | 279          | 228          | 271          |
| TOLUENE                                 | 283           | 282         | 334          | 312          | 372          | 410          | 369          | 386          |
| PARAXYLENE                              | 1756          | 1899        | 2054         | 2175         | 2228         | 2345         | 2220         | 2392         |
| <b>Total</b>                            | <b>2863</b>   | <b>2935</b> | <b>3274</b>  | <b>3064</b>  | <b>3440</b>  | <b>3538</b>  | <b>3284</b>  | <b>3773</b>  |
| <b>OTHER PETRO-BASED CHEMICALS</b>      |               |             |              |              |              |              |              |              |
| DIETHYLENE GLYCOL                       | 68            | 58          | 69           | 73           | 99           | 103          | 107          | 101          |
| DIACETONE ALCOHOL                       | 9             | 8           | 9            | 4            | 5            | 3            | 0            | 0            |

**Table- 10: Consumption of Selected Major Petrochemicals (Product-wise) during 2007-08 to 2014-15**

| PRODUCT NAME               | CONSUMPTION § |             |             |             |             |             |             |             |
|----------------------------|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|                            | 2007-2008     | 2008-2009   | 2009-2010   | 2010-2011   | 2011-2012   | 2012-2013   | 2013-2014   | 2014-2015   |
| ETHYLENE DICHLORIDE        | 451           | 487         | 637         | 739         | 699         | 672         | 718         | 751         |
| BUTANOL                    | 37            | 33          | 42          | 37          | 50          | 46          | 48          | 60          |
| OXO ALCOHOL                | 0             | 0           | 1           | 0           | 0           | 1           | 1           | 0           |
| 2-ETHYL HEXANOL            | 37            | 44          | 54          | 63          | 78          | 108         | 120         | 142         |
| VINYL CHLORIDE MONOMER     | 404           | 424         | 829         | 1057        | 992         | 965         | 1039        | 1036        |
| EPICHLHYDRINE              | 20            | 22          | 24          | 28          | 28          | 30          | 23          | 34          |
| ISO BUTYLENE               | 39            | 33          | 40          | 43          | 23          | 9           | 21          | 13          |
| METAXYLENE                 | 7             | -6          | 0           | -108        | -83         | -37         | 3           | 1           |
| METHYL ISOBUTYL KETONE     | 14            | 15          | 17          | 16          | 19          | 18          | 18          | 23          |
| PBT                        | 0             | 0           | 0           | 0           | 0           | 0           | 0           | 1           |
| PIB                        | 1             | 0           | 0           | 0           | 1           | 6           | 4           | 6           |
| POLYCARBONATE              | 46            | 41          | 53          | 102         | 114         | 120         | 121         | 122         |
| PROPYLENE OXIDE            | 31            | 33          | 42          | 45          | 44          | 43          | 45          | 60          |
| PROPYLENE GLYCOL           | 35            | 41          | 47          | 50          | 54          | 53          | 57          | 64          |
| POLYVINYL ACETATE RESIN    | 11            | 8           | 4           | -1          | -6          | -10         | -11         | -11         |
| UNSATURATED POLYSTER RESIN | 11            | 25          | 35          | 28          | 25          | 25          | 20          | 16          |
| METHYL METHACRYLATE        | 4             | 3           | 5           | 5           | 4           | 3           | 3           | 3           |
| ISO-BUTANOL                | 3             | 3           | 3           | 3           | 2           | 2           | 1           | 1           |
| C4-RAFFINATE               | 77            | 55          | 65          | 71          | 209         | 395         | 393         | 365         |
| CELLULOSE ACETATE SHEET    | 0             | 0           | 0           | 0           | 0           | 1           | 1           | 1           |
| MELAMINE MOULDING POWDER   | 2             | 2           | 4           | 5           | 7           | 8           | 8           | 4           |
| POLYACETAL RESIN           | 12            | 11          | 15          | 18          | 20          | 26          | 26          | 32          |
| PHTHALIC ANHYDRIDE         | 204           | 202         | 240         | 295         | 263         | 286         | 296         | 305         |
| STYRENE                    | 411           | 391         | 452         | 457         | 513         | 574         | 570         | 611         |
| VINYL ACTATE MONOMER       | 74            | -258        | 74          | 84          | 122         | 126         | 143         | 138         |
| ISOPROPANOL                | 71            | 70          | 91          | 101         | 95          | 122         | 124         | 132         |
| POLYOL                     | 63            | 70          | 83          | 146         | 160         | 179         | 180         | 201         |
| <b>Total</b>               | <b>2144</b>   | <b>1815</b> | <b>2935</b> | <b>3362</b> | <b>3540</b> | <b>3878</b> | <b>4077</b> | <b>4211</b> |

§ Derived consumption as Production + Imports - Exports

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## *Section – IV*

# *Foreign Trade*

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**Table- 11: Exports and Imports of Chemicals (excluding Pharmaceutical Products and Fertilizers) during 2007-08 to 2014-15**

Values in Rs. Crore

| HS Code                                         | Commodity                              | 2007-08         | 2008-09         | 2009-10         | 2010-11        | 2011-12        | 2012-13        | 2013-14        | 2014-15        | CARG (%) (14-15/07-08) |
|-------------------------------------------------|----------------------------------------|-----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|------------------------|
|                                                 | <b>Total National Exports of which</b> | <b>655863.5</b> | <b>840755.1</b> | <b>845533.6</b> | <b>1136964</b> | <b>1465959</b> | <b>1634319</b> | <b>1905011</b> | <b>1897786</b> | <b>16.4</b>            |
| <b>28</b>                                       | INORGANIC CHEMICALS                    | 3317            | 5166            | 4540            | 8564           | 8689           | 7176           | 8258           | 8749           | 14.9                   |
| <b>29</b>                                       | ORGANIC CHEMICALS                      | 28870           | 34060           | 35241           | 41709          | 56659          | 66435          | 73565          | 73603          | 14.3                   |
| <b>32</b>                                       | TANNING OR DYEING                      | 5327            | 5899            | 6556            | 7720           | 9336           | 11372          | 15455          | 17206          | 18.2                   |
| <b>38</b>                                       | MISCELLANEOUS CHEMICAL PRODUCTS.       | 5969            | 8615            | 8611            | 9409           | 12485          | 15545          | 18694          | 19432          | 18.4                   |
| <b>39</b>                                       | PLASTIC AND ARTICLES THEREOF.          | 11219           | 11502           | 13012           | 18150          | 25312          | 28012          | 34154          | 31017          | 15.6                   |
| <b>4002</b>                                     | SYNTHETIC RUBBER AND FACTICE           | 92              | 138             | 136             | 175            | 286            | 181            | 245            | 379            | 22.5                   |
| <b>54</b>                                       | MAN-MADE FILAMENTS.                    | 5451            | 7060            | 9541            | 10469          | 12466          | 12112          | 15575          | 14621          | 15.1                   |
| <b>55</b>                                       | MAN-MADE STAPLE FIBRES.                | 5529            | 5664            | 6719            | 8256           | 10599          | 10565          | 12621          | 13334          | 13.4                   |
| <b>A: Total Chemicals and Chemical Products</b> |                                        | <b>65773</b>    | <b>78104</b>    | <b>84357</b>    | <b>104452</b>  | <b>135832</b>  | <b>151399</b>  | <b>178567</b>  | <b>178341</b>  | <b>15.3</b>            |
|                                                 | <b>% share in total export</b>         | 10.0            | 9.3             | 10.0            | 9.2            | 9.3            | 9.3            | 9.4            | 9.4            |                        |
|                                                 | <b>Total National Imports of which</b> | <b>1012312</b>  | <b>1374436</b>  | <b>1364477</b>  | <b>1683467</b> | <b>2345463</b> | <b>2669162</b> | <b>2715434</b> | <b>2737139</b> | <b>15.3</b>            |
| <b>28</b>                                       | INORGANIC CHEMICALS                    | 11393           | 21492           | 16270           | 17236          | 27792          | 28770          | 29063          | 31407          | 15.6                   |
| <b>29</b>                                       | ORGANIC CHEMICALS                      | 32642           | 38853           | 44505           | 57550          | 69144          | 85439          | 103157         | 108351         | 18.7                   |
| <b>32</b>                                       | TANNING OR DYEING                      | 3031            | 3824            | 4328            | 5434           | 7097           | 8004           | 9254           | 9821           | 18.3                   |
| <b>38</b>                                       | MISCELLANEOUS CHEMICAL PRODUCTS.       | 7357            | 10688           | 11579           | 13935          | 17855          | 20650          | 23107          | 25493          | 19.4                   |
| <b>39</b>                                       | PLASTIC AND ARTICLES THEREOF.          | 16558           | 20385           | 26129           | 34477          | 40578          | 52283          | 61072          | 71396          | 23.2                   |
| <b>4002</b>                                     | SYNTHETIC RUBBER AND FACTICE           | 2374            | 3021            | 3209            | 5141           | 7731           | 7562           | 7339           | 6697           | 16.0                   |
| <b>54</b>                                       | MAN-MADE FILAMENTS.                    | 1970            | 2370            | 2638            | 3024           | 3725           | 4149           | 4597           | 5042           | 14.4                   |
| <b>55</b>                                       | MAN-MADE STAPLE FIBRES.                | 1049            | 1264            | 1454            | 1935           | 2498           | 3052           | 3722           | 4539           | 23.3                   |
| <b>B: Total Chemicals and Chemical Products</b> |                                        | <b>76374</b>    | <b>101898</b>   | <b>110113</b>   | <b>138731</b>  | <b>176419</b>  | <b>209909</b>  | <b>241311</b>  | <b>262744</b>  | <b>19.3</b>            |
|                                                 | <b>% share in total import</b>         | 7.5             | 7.4             | 8.1             | 8.2            | 7.5            | 7.9            | 8.9            | 9.6            |                        |

Chapter 28: Inorganic Chemicals; Organic or Inorganic Compounds of Precious Metals, of Rare-Earth Metals, of Radioactive Elements or of Isotopes; Chapter 29: Organic Chemicals; Chapter 32: Tanning or Dyeing Extracts; Tannins and their Derivatives; Dyes, Pigments and Other Colouring Matter; Paints and Varnishes; Putty and other Mastics; Inks; Chapter 38: Miscellaneous Chemical Products; Chapter 39: Plastics and articles thereof; 4002: Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of any product of heading No.4001 with any product of this heading, in primary forms or in plates, sheets; Chapter 54: Man-made Filaments and Chapter 55: Man-made staple fibres

**Table- 12: Net Imports of Chemicals (excluding Pharmaceutical Products and Fertilizers) during 2007-08 to 2014-15**

Values in Rs. Crore

| HS Code                                        | Commodity                              | 2007-08       | 2008-09       | 2009-10       | 2010-11       | 2011-12       | 2012-13        | 2013-14       | 2014-15       |
|------------------------------------------------|----------------------------------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|
|                                                | <b>Total National Exports of which</b> | <b>356448</b> | <b>533680</b> | <b>518943</b> | <b>546503</b> | <b>879504</b> | <b>1034843</b> | <b>810423</b> | <b>839352</b> |
| <b>28</b>                                      | INORGANIC CHEMICALS                    | <b>8076</b>   | <b>16327</b>  | <b>11730</b>  | <b>8672</b>   | <b>19102</b>  | <b>21594</b>   | <b>20805</b>  | <b>22658</b>  |
| <b>29</b>                                      | ORGANIC CHEMICALS                      | <b>3773</b>   | <b>4793</b>   | <b>9264</b>   | <b>15841</b>  | <b>12486</b>  | <b>19004</b>   | <b>29592</b>  | <b>34748</b>  |
| <b>32</b>                                      | TANNING OR DYEING                      | <b>-2297</b>  | <b>-2075</b>  | <b>-2228</b>  | <b>-2286</b>  | <b>-2240</b>  | <b>-3368</b>   | <b>-6201</b>  | <b>-7385</b>  |
| <b>38</b>                                      | MISCELLANEOUS CHEMICAL PRODUCTS.       | <b>1389</b>   | <b>2073</b>   | <b>2968</b>   | <b>4526</b>   | <b>5370</b>   | <b>5104</b>    | <b>4413</b>   | <b>6061</b>   |
| <b>39</b>                                      | PLASTIC AND ARTICLES THEREOF.          | <b>5339</b>   | <b>8884</b>   | <b>13117</b>  | <b>16327</b>  | <b>15266</b>  | <b>24271</b>   | <b>26918</b>  | <b>40378</b>  |
| <b>4002</b>                                    | SYNTHETIC RUBBER AND FACTICE           | <b>2282</b>   | <b>2883</b>   | <b>3073</b>   | <b>4966</b>   | <b>7445</b>   | <b>7381</b>    | <b>7094</b>   | <b>6318</b>   |
| <b>54</b>                                      | MAN-MADE FILAMENTS.                    | <b>-3481</b>  | <b>-4690</b>  | <b>-6903</b>  | <b>-7445</b>  | <b>-8741</b>  | <b>-7964</b>   | <b>-10978</b> | <b>-9579</b>  |
| <b>55</b>                                      | MAN-MADE STAPLE FIBRES.                | <b>-4480</b>  | <b>-4399</b>  | <b>-5265</b>  | <b>-6322</b>  | <b>-8101</b>  | <b>-7513</b>   | <b>-8899</b>  | <b>-8795</b>  |
| <b>A:Total Chemicals and Chemical Products</b> |                                        | <b>10601</b>  | <b>23794</b>  | <b>25756</b>  | <b>34279</b>  | <b>40587</b>  | <b>58509</b>   | <b>62744</b>  | <b>84403</b>  |
|                                                | <b>% share in total export</b>         | <b>3.0</b>    | <b>4.5</b>    | <b>5.0</b>    | <b>6.3</b>    | <b>4.6</b>    | <b>5.7</b>     | <b>7.7</b>    | <b>10.1</b>   |

Chapter 28: Inorganic Chemicals; Organic or Inorganic Compounds of Precious Metals, of Rare-Earth Metals, of Radioactive Elements or of Isotopes;  
Chapter 29: Organic Chemicals; Chapter 32: Tanning or Dyeing Extracts; Tannins and their Derivatives; Dyes, Pigments and Other Colouring Matter;  
Paints and Varnishes; Putty and other Mastics; Inks; Chapter 38: Miscellaneous Chemical Products; Chapter 39: Plastics and articles thereof; 4002:  
Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of any product of heading No.4001 with any product  
of this heading, in primary forms or in plates, sheets; Chapter 54: Man-made Filaments and Chapter 55: Man-made staple fibres

**Table-13: Exports of Major Chemicals (Group Wise) during 2007-08 to 2014-15**

(QTY. IN MT ; VALUE IN RS. LAKH)

| GROUP                                           | 2007-2008 |        | 2008-2009 |         | 2009-10 |         | 2010-11 |         | 2011-12 |         | 2012-13 |         | 2013-14 |         | 2014-15 |         |
|-------------------------------------------------|-----------|--------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                 | QTY.      | VALUE  | QTY.      | VALUE   | QTY.    | VALUE   | QTY.    | VALUE   | QTY.    | VALUE   | QTY.    | VALUE   | QTY.    | VALUE   | QTY.    | VALUE   |
| <b>ALKALI<br/>CHEMICALS</b>                     | 111266    | 13233  | 148176    | 25966   | 341816  | 36679   | 346968  | 44553   | 344596  | 51653   | 144954  | 33599   | 164213  | 35747   | 73639   | 17660   |
| <b>INORGANIC<br/>CHEMICALS</b>                  | 134554    | 49585  | 117515    | 54525   | 399143  | 103634  | 405998  | 132531  | 327280  | 162105  | 162645  | 99228   | 167449  | 116036  | 163592  | 100558  |
| <b>ORGANIC<br/>CHEMICALS</b>                    | 116393    | 112517 | 82862     | 87116   | 143494  | 99492   | 187390  | 164132  | 315492  | 264248  | 406944  | 373539  | 335353  | 343064  | 240545  | 249461  |
| <b>PESTICIDES &amp;<br/>INSECTICIDES<br/>\$</b> | 102731    | 275139 | 112075    | 394695  | 127950  | 380807  | 125229  | 390996  | 153501  | 568869  | 179518  | 794635  | 206960  | 985161  | 230227  | 974682  |
| <b>DYES &amp;<br/>PIGMENTS</b>                  | 209629    | 398027 | 207047    | 438673  | 248917  | 483259  | 271612  | 567989  | 288392  | 661852  | 326035  | 816039  | 346539  | 1145588 | 353220  | 1285827 |
| <b>EXPORTS OF<br/>MAJOR<br/>CHEMICALS</b>       | 674573    | 848501 | 667675    | 1000975 | 1261320 | 1103871 | 1337197 | 1300201 | 1429261 | 1708727 | 1220096 | 2117040 | 1220514 | 2625596 | 1061223 | 2628188 |

*Source: Imports & Exports data have been received from Directorate General of Commercial Intelligence & Statistics, Ministry of Commerce & Industry, and Kolkata.*

*www.dgciskol@nic.in Dated 12.10.2015*

Note : \$ Import and Export includes both technical and formulations.

**Table-14: Imports of Major Chemicals (Group Wise) during 2007-08 to 2014-15**

(QTY. IN MT : VALUE IN RS. LAKH)

| GROUP                                            | 2007-2008 |        | 2008-2009 |        | 2009-10 |        | 2010-11 |        | 2011-12 |         | 2012-13 |         | 2013-14 |         | 2014-15 |         |
|--------------------------------------------------|-----------|--------|-----------|--------|---------|--------|---------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
|                                                  | QTY.      | VALUE  | QTY.      | VALUE  | QTY.    | VALUE  | QTY.    | VALUE  | QTY.    | VALUE   | QTY.    | VALUE   | QTY.    | VALUE   | QTY.    | VALUE   |
| <b>ALKALI<br/>CHEMICALS</b>                      | 499490    | 54386  | 511268    | 68431  | 867836  | 100179 | 630499  | 70565  | 658385  | 95789   | 995300  | 172682  | 874159  | 152967  | 1134146 | 206474  |
| <b>INORGANIC<br/>CHEMICALS</b>                   | 290135    | 79037  | 314343    | 106899 | 356386  | 105857 | 454720  | 134307 | 478707  | 196837  | 689374  | 237352  | 873906  | 265840  | 911969  | 267873  |
| <b>ORGANIC<br/>CHEMICALS</b>                     | 1210665   | 299897 | 1638930   | 348150 | 1547520 | 328542 | 1638994 | 418374 | 2182271 | 627474  | 2486575 | 757437  | 2495989 | 957223  | 2885815 | 995356  |
| <b>PESTICIDES &amp;<br/>INSECTICIDE<br/>S \$</b> | 8292      | 26357  | 17836     | 113913 | 19584   | 154224 | 26868   | 196567 | 30255   | 231832  | 29789   | 263642  | 37099   | 335996  | 40674   | 374050  |
| <b>DYES &amp;<br/>PIGMENTS</b>                   | 39143     | 73226  | 31513     | 83471  | 36447   | 104418 | 41349   | 122582 | 47548   | 148857  | 52236   | 183735  | 52315   | 208985  | 51935   | 214741  |
| <b>IMPORTS OF<br/>MAJOR<br/>CHEMICALS</b>        | 2047725   | 532903 | 2513890   | 720864 | 2827773 | 793220 | 2792430 | 942395 | 3397166 | 1300789 | 4253274 | 1614848 | 4333468 | 1921011 | 5024539 | 2058494 |

*Source: Imports & Exports data have been received from Directorate General of Commercial Intelligence & Statistics, Ministry of Commerce & Industry, and Kolkata.  
www.dgciskol@nic.in Dated 12.10.2015*

Note : \$ Import and Export includes both technical and formulations.

**Table-15: Net Imports of Major Chemicals (Group Wise) during 2007-08 to 2014-15**

(QTY. IN MT : VALUE IN RS. LAKH)

| GROUP                                 | 2007-2008 |         | 2008-2009 |         | 2009-10 |         | 2010-11 |         | 2011-12 |         | 2012-13 |         | 2013-14 |         | 2014-2015 |          |
|---------------------------------------|-----------|---------|-----------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|-----------|----------|
|                                       | QTY.      | VALUE   | QTY.      | VALUE   | QTY.    | VALUE   | QTY.    | VALUE   | QTY.    | VALUE   | QTY.    | VALUE   | QTY.    | VALUE   | QTY.      | VAL      |
| <b>ALKALI CHEMICALS</b>               | 388224    | 41153   | 363092    | 42465   | 526020  | 63500   | 283531  | 26012   | 313789  | 44136   | 850346  | 139083  | 709946  | 117220  | 1060507   | 188814   |
| <b>INORGANIC CHEMICALS</b>            | 155581    | 29452   | 196828    | 52374   | -42757  | 2223    | 48722   | 1776    | 151427  | 34732   | 526729  | 138124  | 706457  | 149804  | 748377    | 167315   |
| <b>ORGANIC CHEMICALS</b>              | 1094272   | 187380  | 1556068   | 261034  | 1404026 | 229050  | 1451604 | 254242  | 1866779 | 363226  | 2079631 | 383898  | 2160636 | 614159  | 2645270   | 745895   |
| <b>&amp; INSECTICIDE S</b>            | -94439    | -248782 | -94239    | -280782 | -108366 | -226583 | -98361  | -194429 | -123246 | -337037 | -149729 | -530993 | -169861 | -649165 | -189553   | -600632  |
| <b>DYES &amp; PIGMENTS</b>            | -170486   | -324801 | -175534   | -355202 | -212470 | -378841 | -230263 | -445407 | -240844 | -512995 | -273799 | -632304 | -294224 | -936603 | -301285   | -1071086 |
| <b>NET IMPORTS OF MAJOR CHEMICALS</b> | 1373152   | -315598 | 1846215   | -280111 | 1566453 | -310651 | 1455233 | -357806 | 1967905 | -407938 | 3033178 | -502192 | 3112954 | -704585 | 3963316   | -569694  |

Source: Imports & Exports data have been received from Directorate General of Commercial Intelligence & Statistics, Ministry of Commerce & Industry, and Kolkata.  
www.dgciskol@nic.in Dated 12.10.2015

**Table -16: Exports of Major Chemicals (Product-wise) during 2007-08 to 2014-15**

| [QTY IN MT & VALUE IN RS. Lakh] |               |              |               |              |               |               |               |               |               |               |               |              |               |               |               |               |
|---------------------------------|---------------|--------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|---------------|
| PRODUCT                         | 2007-2008     |              | 2008-2009     |              | 2009-2010     |               | 2010-2011     |               | 2011-2012     |               | 2012-2013     |              | 2013-2014     |               | 2014-2015     |               |
|                                 | QTY           | VAL          | QTY           | VAL          | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL          | QTY           | VAL           | QTY           | VAL           |
| <b>ALKALI CHEMICALS</b>         |               |              |               |              |               |               |               |               |               |               |               |              |               |               |               |               |
| SODA ASH                        | 73193         | 7310         | 86204         | 10956        | 257219        | 20931         | 199765        | 18281         | 257622        | 31586         | 82144         | 12766        | 84254         | 12506         | 27720         | 5166          |
| CAUSTIC SODA                    | 32337         | 5483         | 56498         | 14356        | 76995         | 14342         | 143791        | 25699         | 82208         | 18977         | 59118         | 20166        | 76059         | 22568         | 42200         | 11973         |
| LIQUID CHLORINE                 | 5736          | 440          | 5474          | 654          | 7602          | 1406          | 3412          | 573           | 4766          | 1090          | 3692          | 667          | 3900          | 673           | 3719          | 521           |
| <b>Total</b>                    | <b>111266</b> | <b>13233</b> | <b>148176</b> | <b>25966</b> | <b>341816</b> | <b>36679</b>  | <b>346968</b> | <b>44553</b>  | <b>344596</b> | <b>51653</b>  | <b>144954</b> | <b>33599</b> | <b>164213</b> | <b>35747</b>  | <b>73639</b>  | <b>17660</b>  |
| <b>INORGANIC CHEMICALS</b>      |               |              |               |              |               |               |               |               |               |               |               |              |               |               |               |               |
| ALUMINIUM FLUORIDE              | 10013         | 5351         | 8417          | 7192         | 8127          | 4771          | 7068          | 3363          | 3362          | 2181          | 3755          | 2410         | 3658          | 2571          | 2831          | 1980          |
| CALCIUM CARBIDE                 | 4             | 4            | 250           | 87           | 971           | 346           | 961           | 348           | 1267          | 592           | 1758          | 853          | 268           | 148           | 412           | 230           |
| CARBON BLACK                    | 88174         | 30870        | 79603         | 35851        | 359840        | 87287         | 365478        | 114404        | 277698        | 142242        | 110697        | 79285        | 123679        | 88731         | 114119        | 77832         |
| POTASSIUM CHLORATE              | 10893         | 1296         | 2629          | 1186         | 1811          | 763           | 1307          | 393           | 844           | 487           | 791           | 567          | 724           | 451           | 634           | 492           |
| SODIUM CHLORATE                 | 480           | 66           | 159           | 34           | 375           | 35            | 7             | 22            | 127           | 51            | 40            | 5            | 7             | 10            | 31            | 21            |
| TITANIUM DIOXIDE                | 12798         | 9718         | 6835          | 6161         | 5942          | 5794          | 7491          | 8797          | 5009          | 7811          | 3470          | 5278         | 9051          | 12853         | 5158          | 7108          |
| RED PHOSPHORUS                  | 581           | 576          | 347           | 923          | 405           | 804           | 317           | 799           | 383           | 1133          | 471           | 1598         | 411           | 1557          | 360           | 1299          |
| HYDROGEN PEROXIDE               | 1721          | 314          | 3470          | 825          | 2651          | 539           | 1952          | 454           | 2415          | 598           | 1789          | 483          | 544           | 217           | 244           | 143           |
| CALCIUM CARBONATE               | 9890          | 1390         | 15805         | 2266         | 19021         | 3295          | 21417         | 3951          | 36175         | 7010          | 39874         | 8749         | 29107         | 9498          | 39803         | 11453         |
| <b>Total</b>                    | <b>134554</b> | <b>49585</b> | <b>117515</b> | <b>54525</b> | <b>399143</b> | <b>103634</b> | <b>405998</b> | <b>132531</b> | <b>327280</b> | <b>162105</b> | <b>162645</b> | <b>99228</b> | <b>167449</b> | <b>116036</b> | <b>163592</b> | <b>100558</b> |

**Table -16: Exports of Major Chemicals (Product-wise) during 2007-08 to 2014-15**

| PRODUCT                 | [QTY IN MT & VALUE IN RS. Lakh] |       |           |      |           |      |           |      |           |       |           |       |           |       |           |       |
|-------------------------|---------------------------------|-------|-----------|------|-----------|------|-----------|------|-----------|-------|-----------|-------|-----------|-------|-----------|-------|
|                         | 2007-2008                       |       | 2008-2009 |      | 2009-2010 |      | 2010-2011 |      | 2011-2012 |       | 2012-2013 |       | 2013-2014 |       | 2014-2015 |       |
|                         | QTY                             | VAL   | QTY       | VAL  | QTY       | VAL  | QTY       | VAL  | QTY       | VAL   | QTY       | VAL   | QTY       | VAL   | QTY       | VAL   |
| <b>ORGNIC CHEMICALS</b> |                                 |       |           |      |           |      |           |      |           |       |           |       |           |       |           |       |
| ACETIC ACID             | 15040                           | 5509  | 12589     | 5054 | 13022     | 4590 | 8368      | 2662 | 25887     | 8687  | 6617      | 2995  | 7338      | 3134  | 6489      | 3449  |
| ACETIC ANHYDRIDE        | 857                             | 425   | 4168      | 2314 | 1256      | 760  | 1902      | 880  | 2652      | 1373  | 3734      | 1855  | 6430      | 3470  | 20098     | 11565 |
| ACETONE                 | 270                             | 219   | 1950      | 1088 | 501       | 277  | 2805      | 1250 | 1200      | 958   | 2660      | 1828  | 674       | 628   | 3182      | 2975  |
| PHENOL                  | 2078                            | 2203  | 3195      | 3753 | 2720      | 3269 | 1293      | 2321 | 1146      | 2147  | 436       | 1028  | 2142      | 3230  | 2009      | 3338  |
| METHANOL                | 31743                           | 13726 | 3264      | 846  | 45902     | 6426 | 43560     | 8787 | 120419    | 20481 | 184669    | 34456 | 81917     | 22584 | 49463     | 11525 |
| FORMALDEHYDE            | 5710                            | 672   | 3256      | 380  | 3995      | 542  | 4275      | 533  | 4474      | 722   | 5041      | 961   | 6369      | 2020  | 7467      | 1213  |
| NITROBENZENE            | 35                              | 39    | 126       | 144  | 144       | 99   | 110       | 83   | 128       | 126   | 165       | 141   | 146       | 131   | 150       | 137   |
| CITRIC ACID             | 210                             | 109   | 338       | 235  | 1365      | 767  | 1795      | 1272 | 2745      | 1935  | 2411      | 1817  | 2013      | 1671  | 1737      | 1364  |
| MALEIC ANHYDRIDE        | 622                             | 383   | 274       | 232  | 115       | 80   | 66        | 57   | 38        | 32    | 23        | 27    | 27        | 36    | 37        | 47    |
| PENTAERYTHRITOL         | 1776                            | 1615  | 1325      | 1540 | 1195      | 1631 | 1539      | 2026 | 1353      | 1966  | 1385      | 2144  | 1460      | 2277  | 1557      | 2516  |
| ANILINE                 | 2296                            | 1538  | 964       | 1191 | 249       | 291  | 1161      | 899  | 953       | 744   | 193       | 344   | 94        | 143   | 86        | 141   |
| CHLORO METHANES         | 42                              | 65    | 46        | 51   | 116       | 75   | 36        | 53   | 126       | 121   | 42        | 49    | 35        | 353   | 144       | 236   |
| ISOBUTYLBENZENE         | 7314                            | 5408  | 7516      | 6853 | 10801     | 9548 | 11459     | 9769 | 13920     | 14712 | 13314     | 17938 | 14156     | 21087 | 13944     | 19250 |
| ONCB                    | 40                              | 40    | 267       | 225  | 636       | 357  | 428       | 243  | 323       | 168   | 378       | 319   | 2555      | 2428  | 2231      | 2283  |
| PNCB                    | 1806                            | 790   | 1880      | 1270 | 1075      | 533  | 1413      | 677  | 1272      | 693   | 2096      | 1442  | 2370      | 1763  | 843       | 564   |

**Table -16: Exports of Major Chemicals (Product-wise) during 2007-08 to 2014-15**

| PRODUCT                                 | [QTY IN MT & VALUE IN RS. Lakh] |               |              |              |               |              |               |               |               |               |               |               |               |               |               |               |
|-----------------------------------------|---------------------------------|---------------|--------------|--------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                                         | 2007-2008                       |               | 2008-2009    |              | 2009-2010     |              | 2010-2011     |               | 2011-2012     |               | 2012-2013     |               | 2013-2014     |               | 2014-2015     |               |
|                                         | QTY                             | VAL           | QTY          | VAL          | QTY           | VAL          | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           |
| MEK                                     | 207                             | 217           | 304          | 466          | 111           | 139          | 56            | 184           | 428           | 501           | 408           | 390           | 460           | 2382          | 673           | 922           |
| ACETALDEHYDE                            | 128                             | 251           | 244          | 149          | 19            | 20           | 84            | 352           | 241           | 908           | 239           | 1005          | 37            | 118           | 25            | 140           |
| ETHANOLAMINES                           | 1353                            | 1232          | 1975         | 2017         | 585           | 1130         | 1149          | 1578          | 1752          | 3063          | 832           | 3173          | 1235          | 4665          | 1027          | 3696          |
| ETHYL ACETATE                           | 33054                           | 13712         | 30753        | 13955        | 47114         | 20398        | 96996         | 46806         | 126601        | 64994         | 169166        | 88388         | 190187        | 103855        | 115096        | 67934         |
| MENTHOL                                 | 10783                           | 63970         | 6982         | 44793        | 11997         | 48341        | 8274          | 83459         | 9507          | 139774        | 12181         | 212575        | 14988         | 166411        | 13135         | 115160        |
| ORTHO NITRO TOLUENE                     | 1029                            | 394           | 1446         | 560          | 576           | 219          | 621           | 241           | 327           | 143           | 954           | 664           | 720           | 678           | 1152          | 1006          |
| <b>Total</b>                            | <b>116393</b>                   | <b>112517</b> | <b>82862</b> | <b>87116</b> | <b>143494</b> | <b>99492</b> | <b>187390</b> | <b>164132</b> | <b>315492</b> | <b>264248</b> | <b>406944</b> | <b>373539</b> | <b>335353</b> | <b>343064</b> | <b>240545</b> | <b>249461</b> |
| <b>PESTICIDES &amp; INSECTICIDES \$</b> |                                 |               |              |              |               |              |               |               |               |               |               |               |               |               |               |               |
| D.D.T.                                  | 2532                            | 2809          | 0            | 0            | 42            | 133          | 32            | 95            | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| MALATHION                               | 0                               | 0             | 296          | 772          | 1040          | 1337         | 555           | 676           | 425           | 483           | 328           | 611           | 415           | 819           | 1260          | 2346          |
| PARATHION (METHYL)                      | 803                             | 885           | 0            | 0            | 0             | 0            | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| DIMETHOATE                              | 468                             | 640           | 334          | 721          | 458           | 1181         | 359           | 614           | 4             | 9             | 69            | 182           | 184           | 679           | 369           | 1327          |
| D.D.V.P.                                | 1254                            | 1454          | 1021         | 2329         | 837           | 1233         | 929           | 1288          | 1129          | 2024          | 543           | 1179          | 298           | 707           | 564           | 1449          |
| QUINALPHOS                              | 98                              | 191           | 202          | 614          | 344           | 924          | 673           | 2108          | 483           | 1490          | 463           | 1657          | 950           | 3360          | 996           | 3900          |
| ENDOSULPHAN                             | 4104                            | 7421          | 1348         | 2969         | 3916          | 9565         | 4701          | 9353          | 1612          | 3483          | 80            | 260           | 45            | 59            | 0             | 0             |
| CYPERMETHRIN                            | 12649                           | 47179         | 10528        | 54444        | 13483         | 50852        | 10871         | 40665         | 10570         | 52655         | 10268         | 55107         | 11982         | 58546         | 10487         | 50407         |

**Table -16: Exports of Major Chemicals (Product-wise) during 2007-08 to 2014-15**

| PRODUCT                          | [QTY IN MT & VALUE IN RS. Lakh] |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
|----------------------------------|---------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                                  | 2007-2008                       |               | 2008-2009     |               | 2009-2010     |               | 2010-2011     |               | 2011-2012     |               | 2012-2013     |               | 2013-2014     |               | 2014-2015     |               |
|                                  | QTY                             | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           |
| FENTHION                         | 5                               | 9             | 0             | 0             | 23            | 16            | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| LINDANE                          | 17                              | 102           | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             | 0             |
| OTHER PESTICIDES                 | 8357                            | 20493         | 14320         | 40916         | 12974         | 49719         | 22283         | 84569         | 27283         | 83613         | 33468         | 136414        | 48228         | 206246        | 37862         | 178366        |
| OTHER INSECTICIDES               | 41178                           | 140147        | 37110         | 183543        | 41630         | 159975        | 37925         | 150093        | 42940         | 259829        | 41853         | 335623        | 48918         | 372937        | 45483         | 344754        |
| COPPER-OXYCHLORIDE               | 200                             | 305           | 242           | 537           | 316           | 612           | 625           | 1403          | 434           | 1179          | 478           | 1231          | 417           | 1155          | 867           | 2311          |
| 2, 4-D                           | 739                             | 766           | 3095          | 4348          | 8401          | 8818          | 8835          | 11013         | 13262         | 20823         | 15365         | 27427         | 14851         | 27924         | 10938         | 18095         |
| ISOPROTURON                      | 1009                            | 1675          | 1642          | 3542          | 1811          | 3762          | 3351          | 6864          | 2239          | 6588          | 4181          | 13189         | 2114          | 7804          | 2150          | 7972          |
| ALUMINIUM PHOSPHIDE              | 1575                            | 4206          | 1592          | 4738          | 1906          | 6088          | 2158          | 6816          | 1969          | 7271          | 2341          | 9758          | 853           | 3703          | 223           | 562           |
| METHYL BROMIDE                   | 34                              | 107           | 2             | 12            | 160           | 429           | 14            | 28            | 155           | 404           | 104           | 373           | 383           | 1333          | 551           | 1940          |
| ANTI SPROUTING PRODUCTS          | 9268                            | 21420         | 13125         | 39064         | 10051         | 27554         | 10535         | 40697         | 14971         | 68852         | 14452         | 85943         | 15005         | 130898        | 19150         | 151055        |
| OTHER FUNGICIDE NES              | 18441                           | 25330         | 27218         | 56146         | 30558         | 58609         | 21383         | 34714         | 36025         | 60166         | 55525         | 125681        | 62317         | 168991        | 99327         | 210198        |
| <b>TOTAL</b>                     | <b>102731</b>                   | <b>275139</b> | <b>112075</b> | <b>394695</b> | <b>127950</b> | <b>380807</b> | <b>125229</b> | <b>390996</b> | <b>153501</b> | <b>568869</b> | <b>179518</b> | <b>794635</b> | <b>206960</b> | <b>985161</b> | <b>230227</b> | <b>974682</b> |
| <b>DYES &amp; PIGMENTS</b>       |                                 |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| AZO DYES                         | 32437                           | 54333         | 32784         | 63046         | 41323         | 71777         | 49700         | 88623         | 48638         | 89802         | 54228         | 111415        | 57392         | 172261        | 51902         | 194665        |
| ACID DIRECT DYES(OTHER THAN AZO) | 7047                            | 14927         | 3890          | 9720          | 5144          | 10666         | 4220          | 8870          | 3264          | 7815          | 3629          | 9770          | 5637          | 21363         | 4004          | 20146         |
| BASIC DYES                       | 4875                            | 7236          | 4355          | 6892          | 5062          | 7378          | 6141          | 9512          | 5655          | 9732          | 6957          | 14815         | 7148          | 19082         | 7646          | 21701         |

**Table -16: Exports of Major Chemicals (Product-wise) during 2007-08 to 2014-15**

| PRODUCT                      | [QTY IN MT & VALUE IN RS. Lakh] |               |               |               |               |               |               |               |               |               |               |               |               |                |               |                |
|------------------------------|---------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|----------------|
|                              | 2007-2008                       |               | 2008-2009     |               | 2009-2010     |               | 2010-2011     |               | 2011-2012     |               | 2012-2013     |               | 2013-2014     |                | 2014-2015     |                |
|                              | QTY                             | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL            | QTY           | VAL            |
| DISPERSE DYES                | 4201                            | 9001          | 4735          | 12218         | 5064          | 11716         | 5700          | 15642         | 6452          | 18596         | 7017          | 19417         | 9248          | 33190          | 12065         | 48545          |
| FAST COLOUR BASES            | 1904                            | 4427          | 2116          | 6242          | 2629          | 6391          | 2683          | 6939          | 2815          | 7442          | 3106          | 9349          | 2619          | 10191          | 2806          | 11890          |
| OIL SOLUBLE (SOLVENT DYES)   | 2024                            | 6617          | 2245          | 8340          | 3106          | 10112         | 4045          | 13960         | 5158          | 17215         | 4665          | 17828         | 4965          | 23306          | 6826          | 32614          |
| OPTICAL WHITENING AGENTS     | 15509                           | 15452         | 15171         | 21115         | 19045         | 22637         | 23625         | 25112         | 20346         | 22941         | 23049         | 29156         | 23381         | 36889          | 27211         | 44223          |
| ORGANIC PIGMENT              | 366                             | 990           | 265           | 769           | 559           | 999           | 296           | 648           | 330           | 1383          | 60            | 386           | 15            | 100            | 191           | 500            |
| PIGMENT EMULSION             | 49644                           | 128666        | 49707         | 149583        | 56678         | 160071        | 67539         | 212430        | 65704         | 253341        | 69919         | 295002        | 71335         | 353119         | 76407         | 365943         |
| REACTIVE DYES                | 64637                           | 102448        | 65385         | 103675        | 77024         | 119712        | 69031         | 113510        | 77313         | 137604        | 98440         | 200414        | 110018        | 340284         | 107369        | 392147         |
| SULPHUR DYES (SULPHUR BLACK) | 391                             | 970           | 597           | 1031          | 934           | 944           | 1514          | 1277          | 747           | 838           | 889           | 1153          | 1141          | 1575           | 1993          | 2627           |
| VAT DYES                     | 1837                            | 12839         | 1536          | 12160         | 1906          | 13292         | 2073          | 16295         | 2229          | 18768         | 1954          | 16816         | 1955          | 24387          | 2132          | 31855          |
| SOLUBILISED VAT DYES         | 302                             | 1041          | 346           | 1322          | 337           | 897           | 481           | 1309          | 51            | 399           | 47            | 370           | 31            | 491            | 29            | 283            |
| FOOD COLOURS                 | 8435                            | 18497         | 10103         | 24506         | 11355         | 26703         | 13211         | 29415         | 19012         | 42563         | 21786         | 51772         | 22893         | 65439          | 26034         | 77218          |
| NAPTHOLS                     | 1119                            | 2718          | 667           | 2130          | 827           | 2466          | 608           | 1369          | 869           | 1634          | 1242          | 2754          | 887           | 2597           | 1139          | 3113           |
| INORGANIC PIGMENTS           | 9205                            | 6227          | 8797          | 6894          | 12439         | 7686          | 13754         | 9886          | 22957         | 18418         | 20997         | 19035         | 18316         | 17474          | 15854         | 10492          |
| OTHER DYES                   | 5696                            | 11638         | 4348          | 9030          | 5485          | 9812          | 6991          | 13192         | 6852          | 13361         | 8050          | 16587         | 9558          | 23840          | 9612          | 27865          |
| <b>TOTAL</b>                 | <b>209629</b>                   | <b>398027</b> | <b>207047</b> | <b>438673</b> | <b>248917</b> | <b>483259</b> | <b>271612</b> | <b>567989</b> | <b>288392</b> | <b>661852</b> | <b>326035</b> | <b>816039</b> | <b>346539</b> | <b>1145588</b> | <b>353220</b> | <b>1285827</b> |

Source: Imports & Exports data have been received from Directorate General of Commercial Intelligence & Statistics, Ministry of Commerce & Industry, and Kolkata. [www.dgciskol@nic.in](http://www.dgciskol@nic.in) Dated 12.10.2015

Note : \$ Import and Export includes both technical and formulations.

| Table-17: Import of Major Chemicals (Product-Wise) during 2007-08 to 2014-15 |               |              |               |               |               |               |               |               |               |               |               |               |               |               |                |               |
|------------------------------------------------------------------------------|---------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
| [QTY IN MT & VALUE IN RS. Lakh]                                              |               |              |               |               |               |               |               |               |               |               |               |               |               |               |                |               |
| PRODUCT                                                                      | 2007-2008     |              | 2008-2009     |               | 2009-2010     |               | 2010-2011     |               | 2011-2012     |               | 2012-2013     |               | 2013-2014     |               | 2014-2015      |               |
|                                                                              | QTY           | VAL          | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY            | VAL           |
| ALKALI CHEMICALS                                                             |               |              |               |               |               |               |               |               |               |               |               |               |               |               |                |               |
| SODA ASH                                                                     | 355915        | 32594        | 358555        | 41202         | 555956        | 56283         | 489956        | 49573         | 445363        | 52829         | 692866        | 96965         | 569420        | 79817         | 725517         | 112616        |
| CAUSTIC SODA                                                                 | 143568        | 21761        | 152446        | 27136         | 311417        | 43762         | 138481        | 20764         | 212642        | 42811         | 302385        | 75577         | 304653        | 73038         | 407981         | 93584         |
| LIQUID CHLORINE                                                              | 7             | 31           | 267           | 93            | 463           | 134           | 2062          | 228           | 380           | 149           | 49            | 140           | 86            | 112           | 648            | 274           |
| <b>Total</b>                                                                 | <b>499490</b> | <b>54386</b> | <b>511268</b> | <b>68431</b>  | <b>867836</b> | <b>100179</b> | <b>630499</b> | <b>70565</b>  | <b>658385</b> | <b>95789</b>  | <b>995300</b> | <b>172682</b> | <b>874159</b> | <b>152967</b> | <b>1134146</b> | <b>206474</b> |
| INORGANIC CHEMICALS                                                          |               |              |               |               |               |               |               |               |               |               |               |               |               |               |                |               |
| ALUMINIUM FLUORIDE                                                           | 13286         | 6126         | 23248         | 14241         | 24140         | 10624         | 13989         | 6597          | 28448         | 20188         | 26244         | 19086         | 24542         | 17383         | 30120          | 20259         |
| CALCIUM CARBIDE                                                              | 56000         | 14649        | 70860         | 25260         | 51598         | 16657         | 56479         | 19046         | 56500         | 21507         | 57865         | 24734         | 64239         | 26743         | 78332          | 31525         |
| CARBON BLACK                                                                 | 71638         | 29212        | 61237         | 35998         | 73920         | 38260         | 74905         | 45674         | 124338        | 85053         | 143461        | 105503        | 145939        | 112823        | 139468         | 108915        |
| POTASSIUM CHLORATE                                                           | 22            | 15           | 22            | 8             | 7464          | 3693          | 7095          | 3171          | 6300          | 2991          | 7468          | 4217          | 7040          | 4357          | 6147           | 3856          |
| SODIUM CHLORATE                                                              | 14399         | 3471         | 19175         | 6513          | 22162         | 6635          | 24762         | 6655          | 25135         | 8251          | 25076         | 9375          | 28083         | 11570         | 21818          | 9085          |
| TITANIUM DIOXIDE                                                             | 18303         | 15407        | 14092         | 13794         | 15176         | 16563         | 18295         | 20938         | 22636         | 34902         | 17825         | 31788         | 16875         | 29196         | 17574          | 28243         |
| RED PHOSPHORUS                                                               | 218           | 299          | 280           | 966           | 353           | 674           | 384           | 775           | 388           | 808           | 298           | 735           | 266           | 750           | 36             | 98            |
| HYDROGEN PEROXIDE                                                            | 16900         | 2735         | 12334         | 2569          | 8784          | 1652          | 37074         | 9385          | 25313         | 6378          | 33129         | 8191          | 62527         | 16443         | 56276          | 14311         |
| CALCIUM CARBONATE                                                            | 99369         | 7123         | 113095        | 7550          | 152789        | 11099         | 221737        | 22066         | 189649        | 16759         | 378008        | 33723         | 524395        | 46575         | 562198         | 51581         |
| <b>Total</b>                                                                 | <b>290135</b> | <b>79037</b> | <b>314343</b> | <b>106899</b> | <b>356386</b> | <b>105857</b> | <b>454720</b> | <b>134307</b> | <b>478707</b> | <b>196837</b> | <b>689374</b> | <b>237352</b> | <b>873906</b> | <b>265840</b> | <b>911969</b>  | <b>267873</b> |
| ORGNIC CHEMICALS                                                             |               |              |               |               |               |               |               |               |               |               |               |               |               |               |                |               |
| ACETIC ACID                                                                  | 136422        | 36149        | 285037        | 69914         | 389650        | 82134         | 466097        | 96233         | 570040        | 152012        | 646738        | 171462        | 664797        | 197806        | 712384         | 234821        |

| Table-17: Import of Major Chemicals (Product-Wise) during 2007-08 to 2014-15 |                                 |        |           |        |           |       |           |        |           |        |           |        |           |        |           |        |
|------------------------------------------------------------------------------|---------------------------------|--------|-----------|--------|-----------|-------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|
| PRODUCT                                                                      | [QTY IN MT & VALUE IN RS. Lakh] |        |           |        |           |       |           |        |           |        |           |        |           |        |           |        |
|                                                                              | 2007-2008                       |        | 2008-2009 |        | 2009-2010 |       | 2010-2011 |        | 2011-2012 |        | 2012-2013 |        | 2013-2014 |        | 2014-2015 |        |
|                                                                              | QTY                             | VAL    | QTY       | VAL    | QTY       | VAL   | QTY       | VAL    | QTY       | VAL    | QTY       | VAL    | QTY       | VAL    | QTY       | VAL    |
| ACETIC ANHYDRIDE                                                             | 421                             | 183    | 37        | 19     | 895       | 498   | 771       | 401    | 1533      | 856    | 2042      | 1049   | 1792      | 985    | 2689      | 1538   |
| ACETONE                                                                      | 65026                           | 26380  | 68364     | 27260  | 80081     | 31181 | 78236     | 32100  | 100637    | 54505  | 95939     | 54615  | 116758    | 81421  | 126832    | 82658  |
| PHENOL                                                                       | 102871                          | 66153  | 92918     | 46763  | 103071    | 51907 | 123490    | 93671  | 146762    | 111194 | 172758    | 139980 | 214096    | 172402 | 200115    | 183502 |
| METHANOL                                                                     | 788816                          | 112426 | 1058866   | 125780 | 822248    | 89941 | 813422    | 103539 | 1199635   | 198749 | 1398982   | 260025 | 1310438   | 341804 | 1641624   | 319399 |
| FORMALDEHYDE                                                                 | 439                             | 159    | 545       | 186    | 713       | 218   | 605       | 221    | 614       | 395    | 342       | 217    | 433       | 216    | 412       | 225    |
| NITROBENZENE                                                                 | 164                             | 72     | 84        | 39     | 1         | 2     | 0         | 0      | 22        | 36     | 0         | 0      | 0         | 4      | 1208      | 802    |
| CITRIC ACID                                                                  | 31197                           | 10043  | 34374     | 14281  | 40467     | 14750 | 44102     | 18562  | 53142     | 25921  | 56743     | 27338  | 64099     | 31694  | 67369     | 33345  |
| MALEIC ANHYDRIDE                                                             | 23751                           | 12791  | 33009     | 18134  | 27693     | 14919 | 37973     | 24772  | 34584     | 25470  | 36864     | 35099  | 36751     | 39695  | 38388     | 35773  |
| PENTAERYTHRITOL                                                              | 6617                            | 4937   | 6855      | 5354   | 11786     | 6659  | 13961     | 8764   | 15059     | 12162  | 14650     | 13819  | 15650     | 16423  | 13681     | 14646  |
| ANILINE                                                                      | 18736                           | 10953  | 18798     | 12312  | 19067     | 9902  | 24012     | 14563  | 15310     | 10544  | 15441     | 14410  | 31742     | 34853  | 36095     | 36876  |
| CHLORO METHANES                                                              | 1999                            | 735    | 100       | 159    | 325       | 364   | 502       | 435    | 249       | 268    | 153       | 356    | 143       | 296    | 113       | 289    |
| ISOBUTYLBENZENE                                                              | 0                               | 0      | 2         | 10     | 36        | 26    | 0         | 0      | 0         | 0      | 0         | 0      | 26        | 19     | 0         | 0      |
| ONCB                                                                         | 5050                            | 3568   | 5358      | 4008   | 3760      | 2180  | 3598      | 1697   | 2336      | 1092   | 2089      | 1313   | 672       | 589    | 395       | 410    |
| PNCB                                                                         | 1455                            | 386    | 1551      | 658    | 2868      | 1027  | 1564      | 776    | 347       | 187    | 0         | 0      | 398       | 295    | 3838      | 2301   |
| MEK                                                                          | 22091                           | 10332  | 20668     | 13121  | 24556     | 11352 | 21384     | 15286  | 30220     | 24334  | 31597     | 25151  | 27239     | 23186  | 27539     | 25599  |
| ACETALDEHYDE                                                                 | 20                              | 147    | 62        | 420    | 94        | 815   | 61        | 576    | 67        | 240    | 49        | 230    | 97        | 436    | 53        | 176    |
| ETHANOLAMINES                                                                | 4064                            | 3540   | 3334      | 5144   | 4961      | 3701  | 6595      | 5132   | 6488      | 5706   | 10435     | 8562   | 10023     | 10652  | 11286     | 17183  |
| ETHYL ACETATE                                                                | 404                             | 343    | 6721      | 3371   | 14929     | 6555  | 2344      | 1202   | 5008      | 2732   | 1405      | 1102   | 240       | 466    | 201       | 453    |

| Table-17: Import of Major Chemicals (Product-Wise) during 2007-08 to 2014-15 |                                 |               |                |               |                |               |                |               |                |               |                |               |                |               |                |               |
|------------------------------------------------------------------------------|---------------------------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|
| PRODUCT                                                                      | [QTY IN MT & VALUE IN RS. Lakh] |               |                |               |                |               |                |               |                |               |                |               |                |               |                |               |
|                                                                              | 2007-2008                       |               | 2008-2009      |               | 2009-2010      |               | 2010-2011      |               | 2011-2012      |               | 2012-2013      |               | 2013-2014      |               | 2014-2015      |               |
|                                                                              | QTY                             | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           |
| MENTHOL                                                                      | 120                             | 226           | 97             | 401           | 80             | 329           | 52             | 369           | 159            | 1051          | 329            | 2702          | 457            | 3889          | 507            | 4307          |
| ORTHO NITRO TOLUENE                                                          | 1002                            | 374           | 2150           | 816           | 239            | 82            | 225            | 75            | 59             | 20            | 19             | 7             | 138            | 92            | 1086           | 1053          |
| <b>Total</b>                                                                 | <b>1210665</b>                  | <b>299897</b> | <b>1638930</b> | <b>348150</b> | <b>1547520</b> | <b>328542</b> | <b>1638994</b> | <b>418374</b> | <b>2182271</b> | <b>627474</b> | <b>2486575</b> | <b>757437</b> | <b>2495989</b> | <b>957223</b> | <b>2885815</b> | <b>995356</b> |
| <b>PESTICIDES &amp; INSECTICIDES \$</b>                                      |                                 |               |                |               |                |               |                |               |                |               |                |               |                |               |                |               |
| D.D.T.                                                                       | 23                              | 29            | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             |
| MALATHION                                                                    | 0                               | 0             | 0              | 0             | 40             | 58            | 52             | 50            | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             |
| PARATHION (METHYL)                                                           | 623                             | 539           | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             |
| DIMETHOATE                                                                   | 12                              | 16            | 344            | 650           | 133            | 225           | 58             | 109           | 152            | 299           | 182            | 422           | 46             | 106           | 0              | 0             |
| D.D.V.P.                                                                     | 0                               | 0             | 20             | 31            | 20             | 28            | 45             | 66            | 24             | 46            | 0              | 0             | 70             | 99            | 20             | 36            |
| QUINALPHOS                                                                   | 0                               | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             |
| ENDOSULPHAN                                                                  | 47                              | 61            | 0              | 0             | 24             | 46            | 192            | 592           | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             |
| CYPERMETHRIN                                                                 | 147                             | 428           | 31             | 527           | 29             | 455           | 17             | 282           | 0              | 4             | 8              | 20            | 4              | 11            | 0              | 0             |
| FENTHION                                                                     | 0                               | 0             | 0              | 2             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 35             | 173           | 50             | 236           |
| LINDANE                                                                      | 0                               | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             |
| OTHER PESTICIDES                                                             | 975                             | 2463          | 528            | 1726          | 804            | 2127          | 651            | 1495          | 2340           | 7815          | 1263           | 6928          | 2255           | 13747         | 2007           | 12072         |
| OTHER INSECTICIDES                                                           | 3915                            | 13293         | 12269          | 78658         | 11628          | 114036        | 17257          | 142478        | 18388          | 156952        | 17157          | 173226        | 19563          | 194422        | 19369          | 205845        |
| COPPER-OXYCHLORIDE                                                           | 0                               | 2             | 22             | 53            | 0              | 0             | 1              | 7             | 0              | 2             | 0              | 1             | 48             | 122           | 0              | 0             |
| 2, 4-D                                                                       | 0                               | 0             | 4              | 12            | 62             | 72            | 204            | 486           | 0              | 0             | 0              | 78            | 0              | 0             | 34             | 77            |

| Table-17: Import of Major Chemicals (Product-Wise) during 2007-08 to 2014-15 |                                 |              |              |               |              |               |              |               |              |               |              |               |              |               |              |               |
|------------------------------------------------------------------------------|---------------------------------|--------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|
| PRODUCT                                                                      | [QTY IN MT & VALUE IN RS. Lakh] |              |              |               |              |               |              |               |              |               |              |               |              |               |              |               |
|                                                                              | 2007-2008                       |              | 2008-2009    |               | 2009-2010    |               | 2010-2011    |               | 2011-2012    |               | 2012-2013    |               | 2013-2014    |               | 2014-2015    |               |
|                                                                              | QTY                             | VAL          | QTY          | VAL           | QTY          | VAL           | QTY          | VAL           | QTY          | VAL           | QTY          | VAL           | QTY          | VAL           | QTY          | VAL           |
| ISOPROTURON                                                                  | 0                               | 0            | 0            | 0             | 0            | 0             | 23           | 64            | 0            | 0             | 0            | 0             | 0            | 0             | 0            | 0             |
| ALUMINIUM PHOSPHIDE                                                          | 183                             | 511          | 362          | 3285          | 153          | 2102          | 187          | 2183          | 31           | 561           | 23           | 741           | 8            | 61            | 3            | 54            |
| METHYL BROMIDE                                                               | 163                             | 238          | 312          | 528           | 296          | 581           | 448          | 955           | 655          | 1667          | 779          | 2591          | 460          | 1652          | 269          | 1150          |
| OTHER HERBICIDES-ANTI<br>SPROUTING PRODUCTS                                  | 1445                            | 7150         | 2149         | 21738         | 4189         | 23582         | 3775         | 27693         | 4689         | 36838         | 7107         | 57625         | 10056        | 85938         | 12294        | 86257         |
| OTHER FUNGICIDE NES                                                          | 759                             | 1627         | 1795         | 6703          | 2206         | 10912         | 3958         | 20107         | 3976         | 27648         | 3270         | 22010         | 4554         | 39665         | 6628         | 68323         |
| <b>TOTAL</b>                                                                 | <b>8292</b>                     | <b>26357</b> | <b>17836</b> | <b>113913</b> | <b>19584</b> | <b>154224</b> | <b>26868</b> | <b>196567</b> | <b>30255</b> | <b>231832</b> | <b>29789</b> | <b>263642</b> | <b>37099</b> | <b>335996</b> | <b>40674</b> | <b>374050</b> |
| <b>DYES &amp; PIGMENTS</b>                                                   |                                 |              |              |               |              |               |              |               |              |               |              |               |              |               |              |               |
| AZO DYES                                                                     | 465                             | 1343         | 583          | 2101          | 506          | 1829          | 536          | 2055          | 769          | 2556          | 527          | 2844          | 669          | 3559          | 1114         | 5148          |
| ACID DIRECT<br>DYES(OTHER THAN AZO)                                          | 791                             | 925          | 501          | 1101          | 660          | 958           | 643          | 1205          | 746          | 1454          | 678          | 1643          | 729          | 2136          | 436          | 2036          |
| BASIC DYES                                                                   | 1064                            | 1779         | 814          | 1799          | 1560         | 4228          | 1275         | 3970          | 1401         | 4807          | 1189         | 6195          | 1075         | 6569          | 724          | 5266          |
| DISPERSE DYES                                                                | 7215                            | 10076        | 7205         | 12543         | 8013         | 14823         | 8378         | 17490         | 10534        | 22582         | 11118        | 28720         | 8788         | 33194         | 4671         | 26330         |
| FAST COLOUR BASES                                                            | 219                             | 422          | 249          | 591           | 383          | 978           | 367          | 867           | 292          | 801           | 374          | 1308          | 499          | 2653          | 327          | 2864          |
| OIL SOLUBLE (SOLVENT<br>DYES)                                                | 323                             | 869          | 494          | 2657          | 608          | 3567          | 801          | 4615          | 1240         | 6292          | 1239         | 7434          | 1131         | 7329          | 782          | 6414          |
| OPTICAL WHITENING<br>AGENTS                                                  | 497                             | 2441         | 378          | 2264          | 469          | 2692          | 499          | 3073          | 392          | 2755          | 489          | 4302          | 675          | 4708          | 565          | 4442          |
| ORGANIC PIGMENT                                                              | 428                             | 922          | 670          | 968           | 418          | 619           | 111          | 537           | 186          | 817           | 124          | 561           | 178          | 694           | 142          | 575           |
| PIGMENT EMULSION                                                             | 4075                            | 15695        | 4808         | 23398         | 4930         | 27269         | 6659         | 33094         | 8376         | 40159         | 6955         | 43711         | 7069         | 46089         | 6663         | 48423         |
| REACTIVE DYES                                                                | 2267                            | 9473         | 2081         | 9235          | 2181         | 12069         | 2118         | 12646         | 2151         | 11667         | 2935         | 19312         | 3352         | 24425         | 3146         | 26556         |
| SULPHUR DYES<br>(SULPHUR BLACK)                                              | 7957                            | 3214         | 2240         | 1471          | 2574         | 2018          | 1900         | 1680          | 2167         | 1888          | 2189         | 3318          | 1781         | 2498          | 1151         | 2537          |

| Table-17: Import of Major Chemicals (Product-Wise) during 2007-08 to 2014-15 |                                 |              |              |              |              |               |              |               |              |               |              |               |              |               |              |               |
|------------------------------------------------------------------------------|---------------------------------|--------------|--------------|--------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|
| PRODUCT                                                                      | [QTY IN MT & VALUE IN RS. Lakh] |              |              |              |              |               |              |               |              |               |              |               |              |               |              |               |
|                                                                              | 2007-2008                       |              | 2008-2009    |              | 2009-2010    |               | 2010-2011    |               | 2011-2012    |               | 2012-2013    |               | 2013-2014    |               | 2014-2015    |               |
|                                                                              | QTY                             | VAL          | QTY          | VAL          | QTY          | VAL           | QTY          | VAL           | QTY          | VAL           | QTY          | VAL           | QTY          | VAL           | QTY          | VAL           |
| VAT DYES                                                                     | 4765                            | 9521         | 2788         | 8125         | 3599         | 11609         | 4430         | 13255         | 6379         | 16986         | 10201        | 27519         | 13801        | 36889         | 17449        | 43388         |
| SOLUBILISED VAT DYES                                                         | 93                              | 481          | 90           | 448          | 26           | 220           | 54           | 266           | 193          | 698           | 107          | 483           | 91           | 418           | 82           | 252           |
| FOOD COLOURS                                                                 | 493                             | 3278         | 351          | 1917         | 387          | 2481          | 623          | 1825          | 290          | 1768          | 367          | 2778          | 391          | 2978          | 653          | 3872          |
| NAPTHOLS                                                                     | 1076                            | 1948         | 993          | 2159         | 1275         | 2721          | 1200         | 3492          | 916          | 2147          | 1040         | 3178          | 1142         | 4190          | 1024         | 3896          |
| INORGANIC PIGMENTS                                                           | 6799                            | 9580         | 6775         | 10969        | 8424         | 14689         | 11411        | 20775         | 11054        | 29819         | 11799        | 27720         | 10653        | 28729         | 12735        | 30874         |
| OTHER DYES                                                                   | 616                             | 1259         | 493          | 1725         | 434          | 1648          | 344          | 1737          | 462          | 1661          | 905          | 2709          | 291          | 1927          | 271          | 1868          |
| <b>TOTAL</b>                                                                 | <b>39143</b>                    | <b>73226</b> | <b>31513</b> | <b>83471</b> | <b>36447</b> | <b>104418</b> | <b>41349</b> | <b>122582</b> | <b>47548</b> | <b>148857</b> | <b>52236</b> | <b>183735</b> | <b>52315</b> | <b>208985</b> | <b>51935</b> | <b>214741</b> |

Source: Imports & Exports data have been received from Directorate General of Commercial Intelligence & Statistics, Ministry of Commerce & Industry, and Kolkata.

[www.dgciskol@nic.in](mailto:www.dgciskol@nic.in) Dated 12.10.2015

Note : \$ Import and Export includes both technical and formulations.

**Table:-18 Net Imports of Major chemicals (Product-wise) 2007-08 to 2014-15**

[QTY IN MT & VALUE IN RS. Lakh]

| PRODUCT                    | 2007-2008     |              | 2008-2009     |              | 2009-2010     |              | 2010-2011     |              | 2011-2012     |              | 2012-2013     |               | 2013-2014     |               | 2014-2015      |               |
|----------------------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|--------------|---------------|---------------|---------------|---------------|----------------|---------------|
|                            | QTY           | VAL          | QTY           | VAL          | QTY           | VAL          | QTY           | VAL          | QTY           | VAL          | QTY           | VAL           | QTY           | VAL           | QTY            | VAL           |
| <b>ALKALI CHEMICALS</b>    |               |              |               |              |               |              |               |              |               |              |               |               |               |               |                |               |
| SODA ASH                   | 282722        | 25284        | 272351        | 30246        | 298737        | 35352        | 290191        | 31292        | 187741        | 21243        | 610722        | 84199         | 485166        | 67311         | 697797         | 107450        |
| CAUSTIC SODA               | 111231        | 16278        | 95948         | 12780        | 234422        | 29420        | -5310         | -4935        | 130434        | 23834        | 243267        | 55411         | 228594        | 50470         | 365781         | 81611         |
| LIQUID CHLORINE            | -5729         | -409         | -5207         | -561         | -7139         | -1272        | -1350         | -345         | -4386         | -941         | -3643         | -527          | -3814         | -561          | -3071          | -247          |
| <b>Total</b>               | <b>388224</b> | <b>41153</b> | <b>363092</b> | <b>42465</b> | <b>526020</b> | <b>63500</b> | <b>283531</b> | <b>26012</b> | <b>313789</b> | <b>44136</b> | <b>850346</b> | <b>139083</b> | <b>709946</b> | <b>117220</b> | <b>1060507</b> | <b>188814</b> |
| <b>INORGANIC CHEMICALS</b> |               |              |               |              |               |              |               |              |               |              |               |               |               |               |                |               |
| ALUMINIUM FLUORIDE         | 3273          | 775          | 14831         | 7049         | 16013         | 5853         | 6921          | 3234         | 25086         | 18007        | 22489         | 16676         | 20884         | 14812         | 27289          | 18279         |
| CALCIUM CARBIDE            | 55996         | 14645        | 70610         | 25173        | 50627         | 16311        | 55518         | 18698        | 55233         | 20915        | 56107         | 23881         | 63971         | 26595         | 77920          | 31295         |
| CARBON BLACK               | -16536        | -1658        | -18366        | 147          | -285920       | -49027       | -290573       | -68730       | -153360       | -57189       | 32764         | 26218         | 22260         | 24092         | 25349          | 31083         |
| POTASSIUM CHLORATE         | -10871        | -1281        | -2607         | -1178        | 5653          | 2930         | 5788          | 2778         | 5456          | 2504         | 6677          | 3650          | 6316          | 3906          | 5513           | 3364          |
| SODIUM CHLORATE            | 13919         | 3405         | 19016         | 6479         | 21787         | 6600         | 24755         | 6633         | 25008         | 8200         | 25036         | 9370          | 28076         | 11560         | 21787          | 9064          |
| TITANIUM DIOXIDE           | 5505          | 5689         | 7257          | 7633         | 9234          | 10769        | 10804         | 12141        | 17627         | 27091        | 14355         | 26510         | 7824          | 16343         | 12416          | 21135         |
| RED PHOSPHORUS             | -363          | -277         | -67           | 43           | -52           | -130         | 67            | -24          | 5             | -325         | -173          | -863          | -145          | -807          | -324           | -1201         |
| HYDROGEN PEROXIDE          | 15179         | 2421         | 8864          | 1744         | 6133          | 1113         | 35122         | 8931         | 22898         | 5780         | 31340         | 7708          | 61983         | 16226         | 56032          | 14168         |
| CALCIUM CARBONATE          | 89479         | 5733         | 97290         | 5284         | 133768        | 7804         | 200320        | 18115        | 153474        | 9749         | 338134        | 24974         | 495288        | 37077         | 522395         | 40128         |
| <b>Total</b>               | <b>155581</b> | <b>29452</b> | <b>196828</b> | <b>52374</b> | <b>-42757</b> | <b>2223</b>  | <b>48722</b>  | <b>1776</b>  | <b>151427</b> | <b>34732</b> | <b>526729</b> | <b>138124</b> | <b>706457</b> | <b>149804</b> | <b>748377</b>  | <b>167315</b> |
| <b>ORGNIC CHEMICALS</b>    |               |              |               |              |               |              |               |              |               |              |               |               |               |               |                |               |
| ACETIC ACID                | 121382        | 30640        | 272448        | 64860        | 376628        | 77544        | 457729        | 93571        | 544153        | 143325       | 640121        | 168467        | 657459        | 194672        | 705895         | 231372        |
| ACETIC ANHYDRIDE           | -436          | -242         | -4131         | -2295        | -361          | -262         | -1131         | -479         | -1119         | -517         | -1692         | -806          | -4638         | -2485         | -17409         | -10027        |

**Table:-18 Net Imports of Major chemicals (Product-wise) 2007-08 to 2014-15**

[QTY IN MT & VALUE IN RS. Lakh]

| PRODUCT             | 2007-2008 |        | 2008-2009 |        | 2009-2010 |        | 2010-2011 |        | 2011-2012 |         | 2012-2013 |         | 2013-2014 |         | 2014-2015 |         |
|---------------------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|
|                     | QTY       | VAL    | QTY       | VAL    | QTY       | VAL    | QTY       | VAL    | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     |
| ACETONE             | 64756     | 26161  | 66414     | 26172  | 79580     | 30904  | 75431     | 30850  | 99437     | 53547   | 93279     | 52787   | 116084    | 80793   | 123650    | 79683   |
| PHENOL              | 100793    | 63950  | 89723     | 43010  | 100351    | 48638  | 122197    | 91350  | 145616    | 109047  | 172322    | 138952  | 211954    | 169172  | 198106    | 180164  |
| METHANOL            | 757073    | 98700  | 1055602   | 124934 | 776346    | 83515  | 769862    | 94752  | 1079216   | 178268  | 1214313   | 225569  | 1228521   | 319220  | 1592161   | 307874  |
| FORMALDEHYDE        | -5271     | -513   | -2711     | -194   | -3282     | -324   | -3670     | -312   | -3860     | -327    | -4699     | -744    | -5936     | -1804   | -7055     | -988    |
| NITROBENZENE        | 129       | 33     | -42       | -105   | -143      | -97    | -110      | -83    | -106      | -90     | -165      | -141    | -146      | -127    | 1058      | 665     |
| CITRIC ACID         | 30987     | 9934   | 34036     | 14046  | 39102     | 13983  | 42307     | 17290  | 50397     | 23986   | 54332     | 25521   | 62086     | 30023   | 65632     | 31981   |
| MALEIC ANHYDRIDE    | 23129     | 12408  | 32735     | 17902  | 27578     | 14839  | 37907     | 24715  | 34546     | 25438   | 36841     | 35072   | 36724     | 39659   | 38351     | 35726   |
| PENTAERYTHRITOL     | 4841      | 3322   | 5530      | 3814   | 10591     | 5028   | 12422     | 6738   | 13706     | 10196   | 13265     | 11675   | 14190     | 14146   | 12124     | 12130   |
| ANILINE             | 16440     | 9415   | 17834     | 11121  | 18818     | 9611   | 22851     | 13664  | 14357     | 9800    | 15248     | 14066   | 31648     | 34710   | 36009     | 36735   |
| CHLORO METHANES     | 1957      | 670    | 54        | 108    | 209       | 289    | 466       | 382    | 123       | 147     | 111       | 307     | 108       | -57     | -31       | 53      |
| ISOBUTYLBENZENE     | -7314     | -5408  | -7514     | -6843  | -10765    | -9522  | -11459    | -9769  | -13920    | -14712  | -13314    | -17938  | -14130    | -21068  | -13944    | -19250  |
| ONCB                | 5010      | 3528   | 5091      | 3783   | 3124      | 1823   | 3170      | 1454   | 2013      | 924     | 1711      | 994     | -1883     | -1839   | -1836     | -1873   |
| PNCB                | -351      | -404   | -329      | -612   | 1793      | 494    | 151       | 99     | -925      | -506    | -2096     | -1442   | -1972     | -1468   | 2995      | 1737    |
| MEK                 | 21884     | 10115  | 20364     | 12655  | 24445     | 11213  | 21328     | 15102  | 29792     | 23833   | 31189     | 24761   | 26779     | 20804   | 26866     | 24677   |
| ACETALDEHYDE        | -108      | -104   | -182      | 271    | 75        | 795    | -23       | 224    | -174      | -668    | -190      | -775    | 60        | 318     | 28        | 36      |
| ETHANOLAMINES       | 2711      | 2308   | 1359      | 3127   | 4376      | 2571   | 5446      | 3554   | 4736      | 2643    | 9603      | 5389    | 8788      | 5987    | 10259     | 13487   |
| ETHYL ACETATE       | -32650    | -13369 | -24032    | -10584 | -32185    | -13843 | -94652    | -45604 | -121593   | -62262  | -167761   | -87286  | -189947   | -103389 | -114895   | -67481  |
| MENTHOL             | -10663    | -63744 | -6885     | -44392 | -11917    | -48012 | -8222     | -83090 | -9348     | -138723 | -11852    | -209873 | -14531    | -162522 | -12628    | -110853 |
| ORTHO NITRO TOLUENE | -27       | -20    | 704       | 256    | -337      | -137   | -396      | -166   | -268      | -123    | -935      | -657    | -582      | -586    | -66       | 47      |

**Table:-18 Net Imports of Major chemicals (Product-wise) 2007-08 to 2014-15**

[QTY IN MT & VALUE IN RS. Lakh]

| PRODUCT                              | 2007-2008      |               | 2008-2009      |               | 2009-2010      |               | 2010-2011      |               | 2011-2012      |               | 2012-2013      |               | 2013-2014      |               | 2014-2015      |               |
|--------------------------------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|
|                                      | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           |
| <b>Total</b>                         | <b>1094272</b> | <b>187380</b> | <b>1556068</b> | <b>261034</b> | <b>1404026</b> | <b>229050</b> | <b>1451604</b> | <b>254242</b> | <b>1866779</b> | <b>363226</b> | <b>2079631</b> | <b>383898</b> | <b>2160636</b> | <b>614159</b> | <b>2645270</b> | <b>745895</b> |
| <b>PESTICIDES &amp; INSECTICIDES</b> |                |               |                |               |                |               |                |               |                |               |                |               |                |               |                |               |
| D.D.T.                               | -2509          | -2780         | 0              | 0             | -42            | -133          | -32            | -95           | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             |
| MALATHION                            | 0              | 0             | -296           | -772          | -1000          | -1279         | -503           | -626          | -425           | -483          | -328           | -611          | -415           | -819          | -1260          | -2346         |
| PARATHION (METHYL)                   | -180           | -346          | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             |
| DIMETHOATE                           | -456           | -624          | 10             | -71           | -325           | -956          | -301           | -505          | 148            | 290           | 113            | 240           | -138           | -573          | -369           | -1327         |
| D.D.V.P.                             | -1254          | -1454         | -1001          | -2298         | -817           | -1205         | -884           | -1222         | -1105          | -1978         | -543           | -1179         | -228           | -608          | -544           | -1413         |
| QUINALPHOS                           | -98            | -191          | -202           | -614          | -344           | -924          | -673           | -2108         | -483           | -1490         | -463           | -1657         | -950           | -3360         | -996           | -3900         |
| ENDOSULPHAN                          | -4057          | -7360         | -1348          | -2969         | -3892          | -9519         | -4509          | -8761         | -1612          | -3483         | -80            | -260          | -45            | -59           | 0              | 0             |
| CYPERMETHRIN                         | -12502         | -46751        | -10497         | -53917        | -13454         | -50397        | -10854         | -40383        | -10570         | -52651        | -10260         | -55087        | -11978         | -58535        | -10487         | -50407        |
| FENTHION                             | -5             | -9            | 0              | 2             | -23            | -16           | 0              | 0             | 0              | 0             | 0              | 0             | 35             | 173           | 50             | 236           |
| LINDANE                              | -17            | -102          | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             | 0              | 0             |
| OTHER PESTICIDES                     | -7382          | -18030        | -13792         | -39190        | -12170         | -47592        | -21632         | -83074        | -24943         | -75798        | -32205         | -129486       | -45973         | -192499       | -35855         | -166294       |
| OTHER INSECTICIDES                   | -37263         | -126854       | -24841         | -104885       | -30002         | -45939        | -20668         | -7615         | -24552         | -102877       | -24696         | -162397       | -29355         | -178515       | -26114         | -138909       |
| COPPER-OXYCHLORIDE                   | -200           | -303          | -220           | -484          | -316           | -612          | -624           | -1396         | -434           | -1177         | -478           | -1230         | -369           | -1033         | -867           | -2311         |
| 2, 4-D                               | -739           | -766          | -3091          | -4336         | -8339          | -8746         | -8631          | -10527        | -13262         | -20823        | -15365         | -27349        | -14851         | -27924        | -10904         | -18018        |
| ISOPROTURON                          | -1009          | -1675         | -1642          | -3542         | -1811          | -3762         | -3328          | -6800         | -2239          | -6588         | -4181          | -13189        | -2114          | -7804         | -2150          | -7972         |
| ALUMINIUM PHOSPHIDE                  | -1392          | -3695         | -1230          | -1453         | -1753          | -3986         | -1971          | -4633         | -1938          | -6710         | -2318          | -9017         | -845           | -3642         | -220           | -508          |
| METHYL BROMIDE                       | 129            | 131           | 310            | 516           | 136            | 152           | 434            | 927           | 500            | 1263          | 675            | 2218          | 77             | 319           | -282           | -790          |

**Table:-18 Net Imports of Major chemicals (Product-wise) 2007-08 to 2014-15**

[QTY IN MT & VALUE IN RS. Lakh]

| PRODUCT                                  | 2007-2008     |                | 2008-2009     |                | 2009-2010      |                | 2010-2011     |                | 2011-2012      |                | 2012-2013      |                | 2013-2014      |                | 2014-2015      |                |
|------------------------------------------|---------------|----------------|---------------|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                          | QTY           | VAL            | QTY           | VAL            | QTY            | VAL            | QTY           | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            |
| OTHER HERBICIDES-ANTI SPROUTING PRODUCTS | -7823         | -14270         | -10976        | -17326         | -5862          | -3972          | -6760         | -13004         | -10282         | -32014         | -7345          | -28318         | -4949          | -44960         | -6856          | -64798         |
| OTHER FUNGICIDE NES                      | -17682        | -23703         | -25423        | -49443         | -28352         | -47697         | -17425        | -14607         | -32049         | -32518         | -52255         | -103671        | -57763         | -129326        | -92699         | -141875        |
| <b>TOTAL</b>                             | <b>-94439</b> | <b>-248782</b> | <b>-94239</b> | <b>-280782</b> | <b>-108366</b> | <b>-226583</b> | <b>-98361</b> | <b>-194429</b> | <b>-123246</b> | <b>-337037</b> | <b>-149729</b> | <b>-530993</b> | <b>-169861</b> | <b>-649165</b> | <b>-189553</b> | <b>-600632</b> |
| <b>DYES &amp; PIGMENTS</b>               |               |                |               |                |                |                |               |                |                |                |                |                |                |                |                |                |
| AZO DYES                                 | -31972        | -52990         | -32201        | -60945         | -40817         | -69948         | -49164        | -86568         | -47869         | -87246         | -53701         | -108571        | -56723         | -168702        | -50788         | -189517        |
| ACID DIRECT DYES(OTHER THAN AZO)         | -6256         | -14002         | -3389         | -8619          | -4484          | -9708          | -3577         | -7665          | -2518          | -6361          | -2951          | -8127          | -4908          | -19227         | -3568          | -18110         |
| BASIC DYES                               | -3811         | -5457          | -3541         | -5093          | -3502          | -3150          | -4866         | -5542          | -4254          | -4925          | -5768          | -8620          | -6073          | -12513         | -6922          | -16435         |
| DISPERSE DYES                            | 3014          | 1075           | 2470          | 325            | 2949           | 3107           | 2678          | 1848           | 4082           | 3986           | 4101           | 9303           | -460           | 4              | -7394          | -22215         |
| FAST COLOUR BASES                        | -1685         | -4005          | -1867         | -5651          | -2246          | -5413          | -2316         | -6072          | -2523          | -6641          | -2732          | -8041          | -2120          | -7538          | -2479          | -9026          |
| OIL SOLUBLE (SOLVENT DYES)               | -1701         | -5748          | -1751         | -5683          | -2498          | -6545          | -3244         | -9345          | -3918          | -10923         | -3426          | -10394         | -3834          | -15977         | -6044          | -26200         |
| OPTICAL WHITENING AGENTS                 | -15012        | -13011         | -14793        | -18851         | -18576         | -19945         | -23126        | -22039         | -19954         | -20186         | -22560         | -24854         | -22706         | -32181         | -26646         | -39781         |
| ORGANIC PIGMENT                          | 62            | -68            | 405           | 199            | -141           | -380           | -185          | -111           | -144           | -566           | 64             | 175            | 163            | 594            | -49            | 75             |
| PIGMENT EMULSION                         | -45569        | -112971        | -44899        | -126185        | -51748         | -132802        | -60880        | -179336        | -57328         | -213182        | -62964         | -251291        | -64266         | -307030        | -69744         | -317520        |
| REACTIVE DYES                            | -62370        | -92975         | -63304        | -94440         | -74843         | -107643        | -66913        | -100864        | -75162         | -125937        | -95505         | -181102        | -106666        | -315859        | -104223        | -365591        |
| SULPHUR DYES (SULPHUR BLACK)             | 7566          | 2244           | 1643          | 440            | 1640           | 1074           | 386           | 403            | 1420           | 1050           | 1300           | 2165           | 640            | 923            | -842           | -90            |
| VAT DYES                                 | 2928          | -3318          | 1252          | -4035          | 1693           | -1683          | 2357          | -3040          | 4150           | -1782          | 8247           | 10703          | 11846          | 12502          | 15317          | 11533          |
| SOLUBILISED VAT DYES                     | -209          | -560           | -256          | -874           | -311           | -677           | -427          | -1043          | 142            | 299            | 60             | 113            | 60             | -73            | 53             | -31            |
| FOOD COLOURS                             | -7942         | -15219         | -9752         | -22589         | -10968         | -24222         | -12588        | -27590         | -18722         | -40795         | -21419         | -48994         | -22502         | -62461         | -25381         | -73346         |
| NAPTHOLS                                 | -43           | -770           | 326           | 29             | 448            | 255            | 592           | 2123           | 47             | 513            | -202           | 424            | 255            | 1593           | -115           | 783            |

**Table:-18 Net Imports of Major chemicals (Product-wise) 2007-08 to 2014-15**

[QTY IN MT & VALUE IN RS. Lakh]

| PRODUCT            | 2007-2008      |                | 2008-2009      |                | 2009-2010      |                | 2010-2011      |                | 2011-2012      |                | 2012-2013      |                | 2013-2014      |                | 2014-2015      |                 |
|--------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------|
|                    | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL             |
| INORGANIC PIGMENTS | -2406          | 3353           | -2022          | 4075           | -4015          | 7003           | -2343          | 10889          | -11903         | 11401          | -9198          | 8685           | -7663          | 11255          | -3119          | 20382           |
| OTHER DYES         | -5080          | -10379         | -3855          | -7305          | -5051          | -8164          | -6647          | -11455         | -6390          | -11700         | -7145          | -13878         | -9267          | -21913         | -9341          | -25997          |
| <b>TOTAL</b>       | <b>-170486</b> | <b>-324801</b> | <b>-175534</b> | <b>-355202</b> | <b>-212470</b> | <b>-378841</b> | <b>-230263</b> | <b>-445407</b> | <b>-240844</b> | <b>-512995</b> | <b>-273799</b> | <b>-632304</b> | <b>-294224</b> | <b>-936603</b> | <b>-301285</b> | <b>-1071086</b> |

*Source: Imports & Exports data have been received from Directorate General of Commercial Intelligence & Statistics, Ministry of Commerce & Industry, and Kolkata. [www.dgciskol@nic.in](http://www.dgciskol@nic.in) Dated 12.10.2015*

**Table-19 Top Five Export Destinations of Selected Chemicals during 2014-15**

| PRODUCT            | COUNTRY         | QUANTITY (MT)   | VALUE (RS.Lakh) |
|--------------------|-----------------|-----------------|-----------------|
| SODA ASH           | BANGLADESH PR   | 11635.90        | 2007.92         |
|                    | NEPAL           | 7169.23         | 1393.34         |
|                    | SRI LANKA DSR   | 5968.22         | 1014.52         |
|                    | U ARAB EMTS     | 1221.56         | 240.72          |
|                    | VIETNAM SOC REP | 610.00          | 157.87          |
|                    | <b>TOTAL</b>    | <b>26604.90</b> | <b>4814.38</b>  |
| CAUSTIC SODA       | NEPAL           | 9099.85         | 2622.63         |
|                    | TANZANIA REP    | 7300.98         | 1818.18         |
|                    | KENYA           | 5490.89         | 1453.40         |
|                    | SRI LANKA DSR   | 5302.27         | 1525.64         |
|                    | UGANDA          | 3840.26         | 1008.40         |
|                    | <b>TOTAL</b>    | <b>31034.25</b> | <b>8428.24</b>  |
| LIQUID CHLORINE    | U ARAB EMTS     | 1752.40         | 161.54          |
|                    | SRI LANKA DSR   | 655.20          | 76.57           |
|                    | KENYA           | 530.20          | 154.57          |
|                    | MAURITIUS       | 455.70          | 32.11           |
|                    | NIGERIA         | 141.30          | 49.56           |
|                    | <b>TOTAL</b>    | <b>3534.80</b>  | <b>474.34</b>   |
| ALUMINIUM FLUORIDE | U ARAB EMTS     | 2480.00         | 1719.71         |
|                    | BRAZIL          | 200.00          | 118.92          |
|                    | JAPAN           | 150.00          | 140.45          |
|                    | NEPAL           | 0.58            | 0.27            |
|                    | MALAYSIA        | 0.20            | 0.18            |
|                    | <b>TOTAL</b>    | <b>2830.78</b>  | <b>1979.51</b>  |
| CALCIUM CARBIDE    | U ARAB EMTS     | 233.00          | 120.22          |
|                    | BANGLADESH PR   | 153.00          | 92.07           |
|                    | DJIBOUTI        | 24.00           | 13.70           |
|                    | OMAN            | 0.90            | 1.06            |
|                    | KENYA           | 0.60            | 0.27            |
|                    | <b>TOTAL</b>    | <b>411.50</b>   | <b>227.32</b>   |
| CARBON BLACK       | SRI LANKA DSR   | 23940.98        | 16933.45        |
|                    | VIETNAM SOC REP | 13897.68        | 8470.68         |
|                    | KOREA RP        | 13547.13        | 9802.48         |
|                    | JAPAN           | 11992.61        | 8671.57         |
|                    | TURKEY          | 11774.00        | 7669.19         |
|                    | <b>TOTAL</b>    | <b>75152.38</b> | <b>51547.37</b> |
|                    | EGYPT A RP      | 280.00          | 226.40          |
|                    | PHILIPPINES     | 252.00          | 189.89          |

**Table-19 Top Five Export Destinations of Selected Chemicals during 2014-15**

| PRODUCT            | COUNTRY       | QUANTITY (MT)   | VALUE (RS.Lakh) |
|--------------------|---------------|-----------------|-----------------|
| POTASSIUM CHLORATE | U S A         | 72.00           | 53.63           |
|                    | NEPAL         | 25.00           | 17.95           |
|                    | CYPRUS        | 5.00            | 3.86            |
|                    | <b>TOTAL</b>  | <b>634.00</b>   | <b>491.73</b>   |
| SODIUM CHLORATE    | SOUTH AFRICA  | 23.00           | 17.59           |
|                    | NEPAL         | 8.18            | 2.28            |
|                    | CANADA        | 0.05            | 0.18            |
|                    | GERMANY       | 0.05            | 0.02            |
|                    | SWITZERLAND   | 0.02            | 0.88            |
|                    | <b>TOTAL</b>  | <b>31.30</b>    | <b>20.95</b>    |
| TITANIUM DIOXIDE   | ITALY         | 1768.00         | 2397.96         |
|                    | U S A         | 1291.06         | 1710.91         |
|                    | JAPAN         | 522.62          | 654.26          |
|                    | IRAN          | 399.20          | 715.23          |
|                    | NIGERIA       | 379.44          | 580.79          |
|                    | <b>TOTAL</b>  | <b>4360.32</b>  | <b>6059.14</b>  |
| RED PHOSPHORUS     | U S A         | 78.01           | 250.56          |
|                    | INDONESIA     | 48.00           | 187.09          |
|                    | SOUTH AFRICA  | 42.00           | 162.36          |
|                    | HUNGARY       | 40.00           | 145.20          |
|                    | IRAN          | 31.00           | 143.28          |
|                    | <b>TOTAL</b>  | <b>239.01</b>   | <b>888.49</b>   |
| HYDROGEN PEROXIDE  | KENYA         | 103.36          | 43.93           |
|                    | U ARAB EMTS   | 40.00           | 12.04           |
|                    | OMAN          | 21.74           | 7.91            |
|                    | KUWAIT        | 15.99           | 4.99            |
|                    | NEPAL         | 13.52           | 14.70           |
|                    | <b>TOTAL</b>  | <b>194.61</b>   | <b>83.56</b>    |
| CALCIUM CARBONATE  | NEPAL         | 11600.72        | 3185.31         |
|                    | BANGLADESH PR | 5937.28         | 1306.69         |
|                    | NIGERIA       | 5472.51         | 850.69          |
|                    | SAUDI ARAB    | 3135.03         | 1627.04         |
|                    | U ARAB EMTS   | 1604.53         | 416.17          |
|                    | <b>TOTAL</b>  | <b>27750.07</b> | <b>7385.90</b>  |
| ACETIC ACID        | BANGLADESH PR | 1159.82         | 565.99          |
|                    | U ARAB EMTS   | 1117.47         | 520.21          |
|                    | EGYPT A RP    | 541.10          | 253.03          |
|                    | OMAN          | 520.23          | 263.86          |

**Table-19 Top Five Export Destinations of Selected Chemicals during 2014-15**

| PRODUCT          | COUNTRY       | QUANTITY (MT)   | VALUE (RS.Lakh) |
|------------------|---------------|-----------------|-----------------|
|                  | SAUDI ARAB    | 477.44          | 239.45          |
|                  | <b>TOTAL</b>  | <b>3816.07</b>  | <b>1842.54</b>  |
| ACETIC ANHYDRIDE | BELGIUM       | 18759.00        | 10676.74        |
|                  | BANGLADESH PR | 485.00          | 332.72          |
|                  | THAILAND      | 393.00          | 251.42          |
|                  | ITALY         | 288.00          | 182.32          |
|                  | ECUADOR       | 64.00           | 49.70           |
|                  | <b>TOTAL</b>  | <b>19989.00</b> | <b>11492.90</b> |
| ACETONE          | IRAN          | 1923.33         | 1816.00         |
|                  | U ARAB EMTS   | 561.20          | 399.06          |
|                  | KENYA         | 306.34          | 236.16          |
|                  | SRI LANKA DSR | 123.07          | 92.69           |
|                  | TANZANIA REP  | 67.80           | 54.92           |
|                  | <b>TOTAL</b>  | <b>2981.74</b>  | <b>2598.83</b>  |
| PHENOL           | IRAN          | 522.92          | 509.96          |
|                  | SAUDI ARAB    | 520.03          | 487.79          |
|                  | U S A         | 192.57          | 359.25          |
|                  | NETHERLAND    | 172.40          | 253.99          |
|                  | U ARAB EMTS   | 158.18          | 162.44          |
|                  | <b>TOTAL</b>  | <b>1566.10</b>  | <b>1773.44</b>  |
| METHANOL         | PHILIPPINES   | 16650.00        | 3208.85         |
|                  | U ARAB EMTS   | 12479.72        | 2504.61         |
|                  | SRI LANKA DSR | 8317.96         | 2037.84         |
|                  | ITALY         | 3350.04         | 732.72          |
|                  | NEPAL         | 2250.73         | 577.27          |
|                  | <b>TOTAL</b>  | <b>43048.45</b> | <b>9061.28</b>  |
| FORMALDEHYDE     | NEPAL         | 6261.30         | 835.77          |
|                  | BHUTAN        | 269.26          | 54.53           |
|                  | SRI LANKA DSR | 249.50          | 123.98          |
|                  | U ARAB EMTS   | 222.03          | 36.58           |
|                  | KENYA         | 198.01          | 53.44           |
|                  | <b>TOTAL</b>  | <b>7200.11</b>  | <b>1104.30</b>  |
| NITROBENZENE     | PAKISTAN IR   | 120.00          | 107.12          |
|                  | THAILAND      | 20.00           | 17.94           |
|                  | PERU          | 6.00            | 5.59            |
|                  | U S A         | 2.00            | 2.48            |
|                  | ITALY         | 1.00            | 0.99            |
|                  | <b>TOTAL</b>  | <b>149.00</b>   | <b>134.11</b>   |

Table-19 Top Five Export Destinations of Selected Chemicals during 2014-15

| PRODUCT          | COUNTRY       | QUANTITY (MT) | VALUE (RS.Lakh) |
|------------------|---------------|---------------|-----------------|
| CITRIC ACID      | U S A         | 1084.93       | 785.73          |
|                  | PUERTO RICO   | 171.00        | 140.43          |
|                  | SPAIN         | 106.40        | 72.91           |
|                  | BANGLADESH PR | 99.33         | 97.90           |
|                  | BRAZIL        | 75.00         | 49.11           |
|                  | TOTAL         | 1536.66       | 1146.08         |
| MALEIC ANHYDRIDE | IRAN          | 20.02         | 24.78           |
|                  | SRI LANKA DSR | 7.00          | 8.10            |
|                  | BANGLADESH PR | 5.00          | 7.16            |
|                  | NEPAL         | 5.00          | 6.43            |
|                  | EGYPT A RP    | 0.12          | 0.12            |
|                  | TOTAL         | 37.14         | 46.60           |
| PENTAERYTHRITOL  | U S A         | 917.00        | 1714.73         |
|                  | NETHERLAND    | 270.00        | 291.84          |
|                  | COLOMBIA      | 198.00        | 217.71          |
|                  | BELGIUM       | 105.00        | 180.03          |
|                  | NEPAL         | 36.09         | 43.26           |
|                  | TOTAL         | 1526.09       | 2447.57         |
| ANILINE          | PAKISTAN IR   | 75.60         | 103.04          |
|                  | CHINA P RP    | 8.30          | 30.94           |
|                  | TURKEY        | 1.80          | 2.97            |
|                  | EGYPT A RP    | 0.16          | 0.81            |
|                  | SAUDI ARAB    | 0.12          | 0.37            |
|                  | TOTAL         | 85.98         | 138.13          |
| CHLORO METHANES  | RUSSIA        | 45.00         | 28.08           |
|                  | IRAN          | 33.60         | 32.35           |
|                  | ITALY         | 19.50         | 19.75           |
|                  | SAUDI ARAB    | 18.55         | 17.65           |
|                  | CHINA P RP    | 14.60         | 120.82          |
|                  | TOTAL         | 131.25        | 218.65          |
| ISOBUTYLBENZENE  | U S A         | 7018.21       | 9334.19         |
|                  | CHINA P RP    | 6926.00       | 9915.59         |
|                  | TOTAL         | 13944.21      | 19249.78        |
| ONCB             | BRAZIL        | 1265.00       | 1293.34         |
|                  | GERMANY       | 690.00        | 685.55          |
|                  | SWITZERLAND   | 131.90        | 170.14          |
|                  | CHINA P RP    | 122.00        | 118.05          |
|                  | JAPAN         | 21.00         | 14.44           |

**Table-19 Top Five Export Destinations of Selected Chemicals during 2014-15**

| PRODUCT              | COUNTRY       | QUANTITY (MT)   | VALUE (RS.Lakh)  |
|----------------------|---------------|-----------------|------------------|
|                      | <b>TOTAL</b>  | <b>2229.90</b>  | <b>2281.52</b>   |
| <b>PNCB</b>          | GERMANY       | 500.30          | 334.33           |
|                      | JAPAN         | 147.00          | 100.31           |
|                      | NETHERLAND    | 147.00          | 81.27            |
|                      | TAIWAN        | 48.64           | 46.08            |
|                      | U S A         | 0.50            | 2.18             |
|                      | <b>TOTAL</b>  | <b>843.44</b>   | <b>564.16</b>    |
| <b>MEK</b>           | SINGAPORE     | 435.03          | 330.92           |
|                      | PAKISTAN IR   | 192.00          | 23.46            |
|                      | SWITZERLAND   | 38.77           | 557.35           |
|                      | U S A         | 3.80            | 5.55             |
|                      | NEPAL         | 3.10            | 4.42             |
|                      | <b>TOTAL</b>  | <b>672.71</b>   | <b>921.70</b>    |
| <b>ACETALDEHYDE</b>  | SAUDI ARAB    | 13.65           | 82.42            |
|                      | KOREA DP RP   | 8.80            | 12.83            |
|                      | BANGLADESH PR | 0.60            | 9.07             |
|                      | NEPAL         | 0.50            | 2.05             |
|                      | GERMANY       | 0.45            | 1.01             |
|                      | <b>TOTAL</b>  | <b>24.00</b>    | <b>107.38</b>    |
| <b>ETHANOLAMINES</b> | U ARAB EMTS   | 148.78          | 292.22           |
|                      | SAUDI ARAB    | 76.03           | 105.87           |
|                      | ISRAEL        | 64.50           | 86.19            |
|                      | BANGLADESH PR | 33.44           | 83.09            |
|                      | <b>TOTAL</b>  | <b>322.74</b>   | <b>567.37</b>    |
| <b>ETHYL ACETATE</b> | NETHERLAND    | 21024.67        | 11195.73         |
|                      | ITALY         | 20733.84        | 11457.14         |
|                      | BELGIUM       | 17600.00        | 9878.81          |
|                      | NIGERIA       | 12190.60        | 7921.09          |
|                      | BANGLADESH PR | 5365.28         | 3526.92          |
|                      | <b>TOTAL</b>  | <b>76914.39</b> | <b>43979.69</b>  |
| <b>MENTHOL</b>       | CHINA P RP    | 10470.45        | 88063.81         |
|                      | SINGAPORE     | 810.11          | 7256.50          |
|                      | U S A         | 524.08          | 5293.53          |
|                      | NETHERLAND    | 195.95          | 2142.68          |
|                      | GERMANY       | 163.83          | 1530.32          |
|                      | <b>TOTAL</b>  | <b>12164.41</b> | <b>104286.83</b> |
|                      | JAPAN         | 800.00          | 717.35           |
|                      | CHINA P RP    | 192.00          | 133.80           |

**Table-19 Top Five Export Destinations of Selected Chemicals during 2014-15**

| PRODUCT                | COUNTRY         | QUANTITY (MT)  | VALUE (RS.Lakh) |
|------------------------|-----------------|----------------|-----------------|
| ORTHO NITRO<br>TOLUENE | GERMANY         | 100.00         | 105.62          |
|                        | NETHERLAND      | 60.00          | 49.30           |
|                        | <b>TOTAL</b>    | <b>1152.00</b> | <b>1006.07</b>  |
| MALATHION              | EGYPT A RP      | 682.50         | 1244.61         |
|                        | MEXICO          | 263.50         | 485.93          |
|                        | PHILIPPINES     | 136.50         | 265.54          |
|                        | SAUDI ARAB      | 63.71          | 131.33          |
|                        | MALAYSIA        | 39.00          | 73.46           |
|                        | <b>TOTAL</b>    | <b>1185.21</b> | <b>2200.87</b>  |
| DIMETHOATE             | UGANDA          | 270.51         | 1048.30         |
|                        | BANGLADESH PR   | 65.00          | 166.84          |
|                        | ITALY           | 15.92          | 61.50           |
|                        | ALGERIA         | 9.60           | 34.90           |
|                        | NEPAL           | 2.76           | 4.10            |
|                        | <b>TOTAL</b>    | <b>363.79</b>  | <b>1315.65</b>  |
| D.D.V.P.               | UGANDA          | 214.79         | 730.74          |
|                        | ARGENTINA       | 93.75          | 167.64          |
|                        | MEXICO          | 90.00          | 167.32          |
|                        | JAPAN           | 52.00          | 114.26          |
|                        | BRAZIL          | 36.00          | 86.65           |
|                        | <b>TOTAL</b>    | <b>486.54</b>  | <b>1266.61</b>  |
| QUINALPHOS             | VIETNAM SOC REP | 905.22         | 3645.41         |
|                        | BANGLADESH PR   | 71.40          | 205.78          |
|                        | NEPAL           | 12.62          | 16.71           |
|                        | TANZANIA REP    | 5.00           | 18.65           |
|                        | SOUTH AFRICA    | 1.82           | 13.85           |
|                        | <b>TOTAL</b>    | <b>996.05</b>  | <b>3900.39</b>  |
| CYPERMETHRIN           | BRAZIL          | 1002.55        | 6225.70         |
|                        | THAILAND        | 905.33         | 4848.62         |
|                        | NIGERIA         | 748.84         | 1427.14         |
|                        | INDONESIA       | 734.62         | 2597.77         |
|                        | VIETNAM SOC REP | 616.09         | 3100.62         |
|                        | <b>TOTAL</b>    | <b>4007.42</b> | <b>18199.85</b> |
| OTHER PESTICIDES       | U S A           | 7342.72        | 36831.28        |
|                        | NEPAL           | 2718.81        | 3906.66         |
|                        | BRAZIL          | 2336.60        | 19996.32        |
|                        | MEXICO          | 1449.86        | 5677.12         |
|                        | U K             | 1217.21        | 5600.64         |

**Table-19 Top Five Export Destinations of Selected Chemicals during 2014-15**

| PRODUCT                                                  | COUNTRY         | QUANTITY (MT)   | VALUE (RS.Lakh)  |
|----------------------------------------------------------|-----------------|-----------------|------------------|
|                                                          | <b>TOTAL</b>    | <b>15065.20</b> | <b>72012.02</b>  |
| <b>OTHER INSECTICIDES</b>                                | BRAZIL          | 18792.61        | 95820.20         |
|                                                          | BANGLADESH PR   | 2713.02         | 13181.10         |
|                                                          | U S A           | 2243.85         | 58968.09         |
|                                                          | BELGIUM         | 1214.50         | 17042.53         |
|                                                          | GERMANY         | 1156.52         | 14591.92         |
|                                                          | <b>TOTAL</b>    | <b>26120.50</b> | <b>199603.84</b> |
| <b>COPPER-<br/>OXYCHLORIDE</b>                           | IRAN            | 304.00          | 735.42           |
|                                                          | EGYPT A RP      | 278.98          | 784.67           |
|                                                          | VIETNAM SOC REP | 79.00           | 229.17           |
|                                                          | PAKISTAN IR     | 29.00           | 61.40            |
|                                                          | JORDAN          | 20.00           | 49.97            |
|                                                          | <b>TOTAL</b>    | <b>710.98</b>   | <b>1860.63</b>   |
| <b>2, 4-D</b>                                            | U S A           | 2115.00         | 3978.29          |
|                                                          | ARGENTINA       | 955.00          | 1640.35          |
|                                                          | MALAYSIA        | 624.00          | 991.19           |
|                                                          | ETHIOPIA        | 576.00          | 999.90           |
|                                                          | <b>TOTAL</b>    | <b>4270.00</b>  | <b>7609.74</b>   |
| <b>ISOPROTURON</b>                                       | NETHERLAND      | 2148.90         | 7937.36          |
|                                                          | NEW ZEALAND     | 1.00            | 4.58             |
|                                                          | U S A           | 0.25            | 30.13            |
|                                                          | <b>TOTAL</b>    | <b>2150.15</b>  | <b>7972.06</b>   |
| <b>ALUMINIUM<br/>PHOSPHIDE</b>                           | LIBERIA         | 57.12           | 52.70            |
|                                                          | NIGERIA         | 40.14           | 73.58            |
|                                                          | BANGLADESH PR   | 30.20           | 45.58            |
|                                                          | SPAIN           | 20.16           | 93.82            |
|                                                          | AFGHANISTAN TIS | 16.36           | 66.28            |
|                                                          | <b>TOTAL</b>    | <b>163.98</b>   | <b>331.95</b>    |
| <b>METHYL BROMIDE</b>                                    | VIETNAM SOC REP | 247.87          | 899.17           |
|                                                          | EGYPT A RP      | 80.00           | 254.70           |
|                                                          | INDONESIA       | 80.00           | 284.18           |
|                                                          | LIBYA           | 48.00           | 158.33           |
|                                                          | MALAYSIA        | 40.00           | 149.83           |
|                                                          | <b>TOTAL</b>    | <b>495.87</b>   | <b>1746.20</b>   |
| <b>OTHER HERBICIDES-<br/>ANTI SPROUTING<br/>PRODUCTS</b> | U S A           | 4611.50         | 47329.34         |
|                                                          | FRANCE          | 2107.34         | 17068.34         |
|                                                          | ISRAEL          | 1337.60         | 7102.17          |
|                                                          | SOUTH AFRICA    | 1010.65         | 6672.03          |

**Table-19 Top Five Export Destinations of Selected Chemicals during 2014-15**

| PRODUCT                                 | COUNTRY       | QUANTITY (MT)   | VALUE (RS.Lakh) |
|-----------------------------------------|---------------|-----------------|-----------------|
|                                         | BANGLADESH PR | 1005.95         | 1941.91         |
|                                         | <b>TOTAL</b>  | <b>10073.05</b> | <b>80113.79</b> |
| <b>OTHER FUNGICIDES</b>                 | BANGLADESH PR | 7733.00         | 6806.14         |
|                                         | NETHERLAND    | 7260.26         | 10727.88        |
|                                         | FRANCE        | 7170.81         | 17403.35        |
|                                         | BRAZIL        | 5800.94         | 13940.64        |
|                                         | INDONESIA     | 5687.24         | 11167.79        |
|                                         | <b>TOTAL</b>  | <b>33652.25</b> | <b>60045.79</b> |
| <b>AZO DYES</b>                         | ITALY         | 9274.14         | 43303.92        |
|                                         | GERMANY       | 4640.48         | 12928.97        |
|                                         | SPAIN         | 3598.29         | 15859.08        |
|                                         | SINGAPORE     | 3088.86         | 7059.71         |
|                                         | U S A         | 2596.77         | 13658.31        |
|                                         | <b>TOTAL</b>  | <b>23198.54</b> | <b>92810.00</b> |
| <b>ACID DIRECT DYES(OTHER THAN AZO)</b> | ITALY         | 485.23          | 2755.10         |
|                                         | TAIWAN        | 352.15          | 1624.92         |
|                                         | TURKEY        | 339.54          | 1123.88         |
|                                         | PAKISTAN IR   | 282.35          | 796.54          |
|                                         | SPAIN         | 215.28          | 943.60          |
|                                         | <b>TOTAL</b>  | <b>1674.54</b>  | <b>7244.04</b>  |
| <b>BASIC DYES</b>                       | U S A         | 820.57          | 2438.57         |
|                                         | PAKISTAN IR   | 713.29          | 1504.16         |
|                                         | INDONESIA     | 682.31          | 1406.96         |
|                                         | ITALY         | 454.80          | 1144.25         |
|                                         | CANADA        | 400.91          | 727.04          |
|                                         | <b>TOTAL</b>  | <b>3071.88</b>  | <b>7220.98</b>  |
| <b>DISPERSE DYES</b>                    | PAKISTAN IR   | 2435.88         | 7734.33         |
|                                         | KOREA RP      | 1248.62         | 4782.87         |
|                                         | HONDURAS      | 1010.80         | 3942.33         |
|                                         | BANGLADESH PR | 873.61          | 1454.32         |
|                                         | INDONESIA     | 811.09          | 3601.83         |
|                                         | <b>TOTAL</b>  | <b>6380.00</b>  | <b>21515.69</b> |
| <b>FAST COLOUR BASES</b>                | NETHERLAND    | 507.25          | 1896.04         |
|                                         | U S A         | 495.65          | 1737.05         |
|                                         | CHINA P RP    | 349.83          | 1991.47         |
|                                         | BRAZIL        | 254.79          | 939.53          |
|                                         | GERMANY       | 226.50          | 856.69          |
|                                         | <b>TOTAL</b>  | <b>1834.01</b>  | <b>7420.79</b>  |

Table-19 Top Five Export Destinations of Selected Chemicals during 2014-15

| PRODUCT                         | COUNTRY       | QUANTITY (MT) | VALUE (RS.Lakh) |
|---------------------------------|---------------|---------------|-----------------|
| OIL SOLUBLE<br>(SOLVENT DYES)   | BRAZIL        | 1344.71       | 4378.40         |
|                                 | NETHERLAND    | 871.09        | 2709.27         |
|                                 | ITALY         | 829.84        | 3679.20         |
|                                 | U S A         | 783.38        | 5502.48         |
|                                 | GERMANY       | 407.64        | 2814.60         |
|                                 | TOTAL         | 4236.66       | 19083.95        |
| OPTICAL WHITENING<br>AGENTS     | FINLAND       | 5057.95       | 2987.30         |
|                                 | U S A         | 2968.92       | 5326.15         |
|                                 | GERMANY       | 2140.42       | 3597.11         |
|                                 | AUSTRALIA     | 1882.15       | 1690.20         |
|                                 | BRAZIL        | 1723.70       | 4174.56         |
|                                 | TOTAL         | 13773.14      | 17775.32        |
| ORGANIC PIGMENT                 | INDONESIA     | 101.98        | 40.80           |
|                                 | SRI LANKA DSR | 50.02         | 31.42           |
|                                 | BANGLADESH PR | 14.86         | 189.85          |
|                                 | GERMANY       | 13.20         | 152.76          |
|                                 | SOUTH AFRICA  | 5.00          | 18.76           |
|                                 | TOTAL         | 185.05        | 433.59          |
| PIGMENT EMULSION                | U S A         | 11306.75      | 54409.81        |
|                                 | NETHERLAND    | 5219.94       | 26756.75        |
|                                 | KOREA RP      | 4692.65       | 19042.48        |
|                                 | JAPAN         | 4650.26       | 20700.43        |
|                                 | GERMANY       | 3916.46       | 24026.25        |
|                                 | TOTAL         | 29786.06      | 144935.72       |
| REACTIVE DYES                   | TURKEY        | 22980.45      | 80604.96        |
|                                 | BANGLADESH PR | 20623.71      | 52265.51        |
|                                 | PAKISTAN IR   | 7101.56       | 21681.01        |
|                                 | HONDURAS      | 6966.81       | 27870.79        |
|                                 | BRAZIL        | 6013.09       | 24507.93        |
|                                 | TOTAL         | 63685.61      | 206930.20       |
| SULPHUR DYES<br>(SULPHUR BLACK) | BANGLADESH PR | 679.74        | 814.04          |
|                                 | U S A         | 573.32        | 878.07          |
|                                 | GERMANY       | 261.60        | 228.56          |
|                                 | TURKEY        | 138.66        | 224.20          |
|                                 | KOREA RP      | 60.14         | 83.70           |
|                                 | TOTAL         | 1713.45       | 2228.57         |
|                                 | BANGLADESH PR | 239.97        | 4032.26         |
|                                 | NIGERIA       | 222.40        | 1350.40         |

**Table-19 Top Five Export Destinations of Selected Chemicals during 2014-15**

| PRODUCT              | COUNTRY       | QUANTITY (MT)  | VALUE (RS.Lakh) |
|----------------------|---------------|----------------|-----------------|
| VAT DYES             | GERMANY       | 161.28         | 3569.87         |
|                      | MAURITANIA    | 148.79         | 1621.54         |
|                      | NETHERLAND    | 120.04         | 1040.20         |
|                      | <b>TOTAL</b>  | <b>892.47</b>  | <b>11614.26</b> |
| SOLUBILISED VAT DYES | INDONESIA     | 15.96          | 212.20          |
|                      | PAKISTAN IR   | 7.11           | 32.06           |
|                      | BANGLADESH PR | 4.74           | 15.31           |
|                      | U S A         | 0.77           | 13.98           |
|                      | ITALY         | 0.47           | 7.00            |
|                      | <b>TOTAL</b>  | <b>29.05</b>   | <b>280.55</b>   |
| FOOD COLOURS         | U S A         | 2390.34        | 10227.24        |
|                      | BRAZIL        | 1399.79        | 5348.15         |
|                      | INDONESIA     | 1343.37        | 5073.91         |
|                      | SOUTH AFRICA  | 1181.33        | 3306.68         |
|                      | ISRAEL        | 1074.52        | 1063.02         |
|                      | <b>TOTAL</b>  | <b>7389.35</b> | <b>25019.00</b> |
| NAPTHOLS             | CHINA P RP    | 176.00         | 492.95          |
|                      | SOUTH AFRICA  | 109.58         | 280.68          |
|                      | U ARAB EMTS   | 106.14         | 150.04          |
|                      | CANADA        | 98.28          | 114.25          |
|                      | JAPAN         | 96.14          | 556.99          |
|                      | <b>TOTAL</b>  | <b>586.13</b>  | <b>1594.91</b>  |
| OTHER DYES           | ITALY         | 959.52         | 2945.14         |
|                      | TAIWAN        | 855.00         | 1334.77         |
|                      | SPAIN         | 836.89         | 2365.83         |
|                      | PAKISTAN IR   | 805.15         | 1744.02         |
|                      | U S A         | 799.65         | 3366.49         |
|                      | <b>TOTAL</b>  | <b>4256.20</b> | <b>11756.25</b> |
| INORGANIC PIGMENTS   | U K           | 1963.95        | 462.86          |
|                      | KENYA         | 1219.14        | 727.75          |
|                      | TANZANIA REP  | 1193.51        | 454.48          |
|                      | SAUDI ARAB    | 885.62         | 391.61          |
|                      | U ARAB EMTS   | 871.60         | 469.63          |
|                      | <b>TOTAL</b>  | <b>6133.82</b> | <b>2506.34</b>  |

**Table-20 Top Five Import Destinations of Selected Chemicals during 2014-15**

| PRODUCT            | COUNTRY       | QUANTITY (MT)    | VALUE (RS.Lakh) |
|--------------------|---------------|------------------|-----------------|
| SODA ASH           | KENYA         | 131656.45        | 18899.28        |
|                    | CHINA P RP    | 127005.10        | 20197.74        |
|                    | BULGARIA      | 103140.25        | 16212.43        |
|                    | U S A         | 87321.88         | 12832.82        |
|                    | ROMANIA       | 78382.11         | 12562.98        |
|                    | <b>TOTAL</b>  | <b>527505.79</b> | <b>80705.25</b> |
| CAUSTIC SODA       | IRAN          | 123280.00        | 27234.39        |
|                    | KOREA RP      | 101840.40        | 23184.61        |
|                    | CHINA P RP    | 78420.10         | 19040.66        |
|                    | QATAR         | 56966.99         | 12427.65        |
|                    | SAUDI ARAB    | 13192.00         | 2800.35         |
|                    | <b>TOTAL</b>  | <b>373699.49</b> | <b>84687.65</b> |
| LIQUID CHLORINE    | BANGLADESH PR | 594.00           | 19.93           |
|                    | FRANCE        | 22.40            | 35.31           |
|                    | KOREA RP      | 16.63            | 147.90          |
|                    | TAIWAN        | 10.00            | 55.31           |
|                    | U S A         | 4.45             | 12.54           |
|                    | <b>TOTAL</b>  | <b>647.48</b>    | <b>270.99</b>   |
| ALUMINIUM FLUORIDE | CHINA P RP    | 21583.06         | 14504.99        |
|                    | ITALY         | 5536.00          | 3751.22         |
|                    | INDONESIA     | 3000.00          | 2000.30         |
|                    | U S A         | 0.69             | 2.54            |
|                    | <b>TOTAL</b>  | <b>30119.74</b>  | <b>20259.04</b> |
| CALCIUM CARBIDE    | CHINA P RP    | 46136.40         | 17277.67        |
|                    | BHUTAN        | 19509.16         | 9011.80         |
|                    | INDONESIA     | 8526.00          | 3495.13         |
|                    | SOUTH AFRICA  | 4157.00          | 1738.91         |
|                    | NEW ZEALAND   | 3.00             | 0.83            |
|                    | <b>TOTAL</b>  | <b>78331.56</b>  | <b>31524.34</b> |
| CARBON BLACK       | CHINA P RP    | 90339.89         | 56262.39        |
|                    | KOREA RP      | 24060.67         | 19703.71        |
|                    | U S A         | 5385.99          | 11442.96        |
|                    | RUSSIA        | 3775.70          | 2562.23         |
|                    | INDONESIA     | 3650.17          | 3044.52         |
|                    | <b>TOTAL</b>  | <b>127212.43</b> | <b>93015.81</b> |
|                    | CHINA P RP    | 6100.99          | 3830.93         |

**Table-20 Top Five Import Destinations of Selected Chemicals during 2014-15**

| PRODUCT            | COUNTRY         | QUANTITY (MT) | VALUE (RS.Lakh) |
|--------------------|-----------------|---------------|-----------------|
| POTASSIUM CHLORATE | HONG KONG       | 25.00         | 16.39           |
|                    | RUSSIA          | 21.00         | 7.98            |
|                    | U K             | 0.13          | 0.22            |
|                    | GERMANY         | 0.10          | 0.14            |
|                    | TOTAL           | 6147.22       | 3855.67         |
| SODIUM CHLORATE    | FRANCE          | 5764.15       | 2353.53         |
|                    | SWEDEN          | 5570.00       | 2274.47         |
|                    | FINLAND         | 4515.00       | 1923.37         |
|                    | CANADA          | 3964.00       | 1622.56         |
|                    | CHINA P RP      | 1830.33       | 814.20          |
|                    | TOTAL           | 21643.48      | 8988.13         |
| TITANIUM DIOXIDE   | CHINA P RP      | 4785.64       | 6711.37         |
|                    | KOREA RP        | 4481.00       | 6741.93         |
|                    | GERMANY         | 1769.29       | 4116.92         |
|                    | UKRAINE         | 1699.98       | 1965.05         |
|                    | CZECH REPUBLIC  | 1520.00       | 2066.15         |
|                    | TOTAL           | 14255.90      | 21601.42        |
| RED PHOSPHORUS     | CHINA P RP      | 36.04         | 97.36           |
|                    | GERMANY         | 0.00          | 0.10            |
|                    | U K             | 0.00          | 0.13            |
|                    | U S A           | 0.00          | 0.02            |
|                    | TOTAL           | 36.04         | 97.60           |
| HYDROGEN PEROXIDE  | THAILAND        | 26157.11      | 6590.08         |
|                    | BANGLADESH PR   | 14127.41      | 3454.98         |
|                    | PAKISTAN IR     | 6639.83       | 1396.62         |
|                    | INDONESIA       | 3158.00       | 912.62          |
|                    | KOREA RP        | 2523.06       | 627.09          |
|                    | TOTAL           | 52605.41      | 12981.39        |
| CALCIUM CARBONATE  | MALAYSIA        | 350533.84     | 32108.10        |
|                    | VIETNAM SOC REP | 113535.57     | 8171.69         |
|                    | EGYPT A RP      | 44850.76      | 3246.51         |
|                    | GREECE          | 21566.00      | 1850.22         |
|                    | THAILAND        | 7567.13       | 945.87          |
|                    | TOTAL           | 538053.29     | 46322.38        |
|                    | MALAYSIA        | 194496.34     | 65921.14        |
|                    | SINGAPORE       | 143475.32     | 48061.59        |

**Table-20 Top Five Import Destinations of Selected Chemicals during 2014-15**

| PRODUCT          | COUNTRY      | QUANTITY (MT)    | VALUE (RS.Lakh)  |
|------------------|--------------|------------------|------------------|
| ACETIC ACID      | CHINA P RP   | 131147.23        | 41531.65         |
|                  | TAIWAN       | 91082.48         | 29807.71         |
|                  | SAUDI ARAB   | 70152.64         | 22440.75         |
|                  | <b>TOTAL</b> | <b>630354.01</b> | <b>207762.85</b> |
| ACETIC ANHYDRIDE | U S A        | 2689.07          | 1538.18          |
|                  | <b>TOTAL</b> | <b>2689.07</b>   | <b>1538.18</b>   |
| ACETONE          | TAIWAN       | 70606.63         | 45626.61         |
|                  | KOREA RP     | 26885.00         | 17899.39         |
|                  | SINGAPORE    | 10241.00         | 6253.27          |
|                  | BELGIUM      | 7202.00          | 4860.59          |
|                  | SAUDI ARAB   | 6588.00          | 4741.36          |
|                  | <b>TOTAL</b> | <b>126900.78</b> | <b>82457.57</b>  |
| PHENOL           | KOREA RP     | 45372.50         | 41200.92         |
|                  | THAILAND     | 33135.98         | 29217.87         |
|                  | TAIWAN       | 20177.10         | 19807.39         |
|                  | SINGAPORE    | 19165.50         | 19147.10         |
|                  | SOUTH AFRICA | 18778.13         | 14672.90         |
|                  | <b>TOTAL</b> | <b>136629.21</b> | <b>124046.18</b> |
| METHANOL         | BELGIUM      | 2.52             | 2.88             |
|                  | BRUNEI       | 18650.00         | 3455.41          |
|                  | CANADA       | 0.02             | 0.19             |
|                  | CHINA P RP   | 106.41           | 60.13            |
|                  | FRANCE       | 0.13             | 3.65             |
|                  | <b>TOTAL</b> | <b>18759.07</b>  | <b>3522.25</b>   |
| FORMALDEHYDE     | SAUDI ARAB   | 327.84           | 173.85           |
|                  | SINGAPORE    | 64.68            | 30.90            |
|                  | CHINA P RP   | 12.56            | 16.68            |
|                  | PAKISTAN IR  | 6.00             | 1.48             |
|                  | U S A        | 0.52             | 1.09             |
|                  | <b>TOTAL</b> | <b>411.60</b>    | <b>224.00</b>    |
| NITROBENZENE     | KOREA RP     | 1208.44          | 801.94           |
|                  | GERMANY      | 0.00             | 0.03             |
|                  | <b>TOTAL</b> | <b>1208.44</b>   | <b>801.97</b>    |
| CITRIC ACID      | CHINA P RP   | 66928.32         | 32666.05         |
|                  | CANADA       | 84.00            | 69.14            |
|                  | HONG KONG    | 75.00            | 33.40            |

**Table-20 Top Five Import Destinations of Selected Chemicals during 2014-15**

| PRODUCT          | COUNTRY      | QUANTITY (MT)   | VALUE (RS.Lakh) |
|------------------|--------------|-----------------|-----------------|
|                  | GERMANY      | 59.59           | 232.09          |
|                  | SINGAPORE    | 50.01           | 23.05           |
|                  | <b>TOTAL</b> | <b>67196.91</b> | <b>33023.72</b> |
| MALEIC ANHYDRIDE | TAIWAN       | 19575.04        | 17737.60        |
|                  | MALAYSIA     | 11405.20        | 11183.22        |
|                  | CHINA P RP   | 4147.00         | 3884.98         |
|                  | INDONESIA    | 1306.30         | 1156.68         |
|                  | KOREA RP     | 943.60          | 897.86          |
|                  | <b>TOTAL</b> | <b>37377.14</b> | <b>34860.33</b> |
| PENTAERYTHRITOL  | SAUDI ARAB   | 8160.00         | 8543.20         |
|                  | RUSSIA       | 2045.32         | 2118.96         |
|                  | TAIWAN       | 1935.00         | 1942.35         |
|                  | CHINA P RP   | 592.53          | 882.57          |
|                  | SWEDEN       | 460.30          | 480.14          |
|                  | <b>TOTAL</b> | <b>13193.16</b> | <b>13967.20</b> |
| ANILINE          | CHINA P RP   | 24708.01        | 24687.34        |
|                  | U K          | 5337.00         | 5751.77         |
|                  | U S A        | 5156.00         | 5389.27         |
|                  | PORTUGAL     | 608.38          | 710.26          |
|                  | KOREA RP     | 241.27          | 282.19          |
|                  | <b>TOTAL</b> | <b>36050.66</b> | <b>36820.83</b> |
| CHLORO METHANES  | CHINA P RP   | 91.00           | 202.64          |
|                  | U S A        | 22.22           | 85.91           |
|                  | <b>TOTAL</b> | <b>113.22</b>   | <b>288.55</b>   |
| ONCB             | CHINA P RP   | 394.93          | 410.41          |
|                  | <b>TOTAL</b> | <b>394.93</b>   | <b>410.41</b>   |
| PNCB             | CHINA P RP   | 3838.44         | 2300.51         |
|                  | <b>TOTAL</b> | <b>3838.44</b>  | <b>2300.51</b>  |
| MEK              | TAIWAN       | 16183.77        | 15169.09        |
|                  | SOUTH AFRICA | 6941.00         | 6465.91         |
|                  | CHINA P RP   | 2588.00         | 2315.95         |
|                  | JAPAN        | 1647.00         | 1447.43         |
|                  | KOREA RP     | 150.38          | 113.87          |
|                  | <b>TOTAL</b> | <b>27510.15</b> | <b>25512.24</b> |
|                  | U K          | 33.44           | 64.77           |
|                  | CHINA P RP   | 14.42           | 62.74           |

**Table-20 Top Five Import Destinations of Selected Chemicals during 2014-15**

| PRODUCT                | COUNTRY      | QUANTITY (MT)  | VALUE (RS.Lakh) |
|------------------------|--------------|----------------|-----------------|
| ACETALDEHYDE           | GERMANY      | 4.15           | 32.04           |
|                        | U S A        | 0.47           | 11.61           |
|                        | BELGIUM      | 0.28           | 2.49            |
|                        | <b>TOTAL</b> | <b>52.74</b>   | <b>173.65</b>   |
| ETHANOLAMINES          | SAUDI ARAB   | 3114.88        | 2774.42         |
|                        | THAILAND     | 3039.95        | 2659.15         |
|                        | MALAYSIA     | 1951.28        | 1762.58         |
|                        | TAIWAN       | 864.00         | 776.01          |
|                        | U S A        | 797.67         | 887.65          |
|                        | <b>TOTAL</b> | <b>9767.78</b> | <b>8859.80</b>  |
| ETHYL ACETATE          | CHINA P RP   | 195.37         | 408.82          |
|                        | GERMANY      | 3.35           | 21.59           |
|                        | U K          | 0.92           | 6.32            |
|                        | U S A        | 0.71           | 10.48           |
|                        | BELGIUM      | 0.05           | 0.79            |
|                        | <b>TOTAL</b> | <b>200.41</b>  | <b>448.00</b>   |
| MENTHOL                | GERMANY      | 371.18         | 3205.50         |
|                        | U S A        | 122.77         | 931.84          |
|                        | JAPAN        | 6.28           | 61.09           |
|                        | SWITZERLAND  | 5.03           | 72.87           |
|                        | CHINA P RP   | 1.00           | 9.56            |
|                        | <b>TOTAL</b> | <b>506.25</b>  | <b>4280.85</b>  |
| ORTHO NITRO<br>TOLUENE | GERMANY      | 679.34         | 619.08          |
|                        | CHINA P RP   | 406.40         | 433.77          |
|                        | <b>TOTAL</b> | <b>1085.74</b> | <b>1052.85</b>  |
| D.D.V.P.               | CHINA P RP   | 20.00          | 36.00           |
|                        | <b>TOTAL</b> | <b>20.00</b>   | <b>36.00</b>    |
| OTHER PESTICIDES       | CHINA P RP   | 1631.14        | 10586.89        |
|                        | RUSSIA       | 120.00         | 411.28          |
|                        | U S A        | 106.40         | 334.96          |
|                        | TAIWAN       | 88.40          | 275.67          |
|                        | GERMANY      | 21.01          | 61.82           |
|                        | <b>TOTAL</b> | <b>1966.95</b> | <b>11670.62</b> |
| OTHER INSECTICIDES     | CHINA P RP   | 7554.04        | 86161.90        |
|                        | U S A        | 4787.08        | 39539.06        |
|                        | SINGAPORE    | 2223.78        | 9825.39         |

**Table-20 Top Five Import Destinations of Selected Chemicals during 2014-15**

| PRODUCT                                                  | COUNTRY      | QUANTITY (MT)   | VALUE (RS.Lakh)  |
|----------------------------------------------------------|--------------|-----------------|------------------|
|                                                          | TAIWAN       | 1707.20         | 5202.26          |
|                                                          | ISRAEL       | 708.60          | 8385.69          |
|                                                          | <b>TOTAL</b> | <b>16980.70</b> | <b>149114.30</b> |
| <b>COPPER-<br/>OXYCHLORIDE</b>                           | GERMANY      | 0.03            | 0.37             |
|                                                          | <b>TOTAL</b> | <b>0.03</b>     | <b>0.37</b>      |
| <b>2, 4-D</b>                                            | GERMANY      | 0.00            | 0.03             |
|                                                          | THAILAND     | 34.00           | 77.30            |
|                                                          | <b>TOTAL</b> | <b>34.00</b>    | <b>77.34</b>     |
| <b>ALUMINIUM<br/>PHOSPHIDE</b>                           | FRANCE       | 2.57            | 53.02            |
|                                                          | SWITZERLAND  | 0.03            | 0.61             |
|                                                          | SINGAPORE    | 0.01            | 0.12             |
|                                                          | GERMANY      | 0.00            | 0.15             |
|                                                          | <b>TOTAL</b> | <b>2.61</b>     | <b>53.89</b>     |
| <b>METHYL BROMIDE</b>                                    | BELGIUM      | 220.12          | 936.18           |
|                                                          | CHINA P RP   | 31.81           | 141.78           |
|                                                          | HONG KONG    | 17.20           | 71.72            |
|                                                          | <b>TOTAL</b> | <b>269.12</b>   | <b>1149.68</b>   |
| <b>OTHER HERBICIDES-<br/>ANTI SPROUTING<br/>PRODUCTS</b> | CHINA P RP   | 4597.16         | 21125.80         |
|                                                          | U K          | 1999.35         | 3974.35          |
|                                                          | ISRAEL       | 1734.90         | 13156.05         |
|                                                          | U S A        | 1698.57         | 18081.32         |
|                                                          | JAPAN        | 1564.66         | 17460.92         |
|                                                          | <b>TOTAL</b> | <b>11594.63</b> | <b>73798.43</b>  |
| <b>OTHER FUNGICIDES</b>                                  | CHINA P RP   | 1367.21         | 5630.89          |
|                                                          | GERMANY      | 1166.48         | 15101.34         |
|                                                          | U K          | 869.35          | 7574.60          |
|                                                          | FRANCE       | 866.30          | 8630.06          |
|                                                          | U S A        | 804.58          | 7779.67          |
|                                                          | <b>TOTAL</b> | <b>5073.91</b>  | <b>44716.56</b>  |
| <b>AZO DYES</b>                                          | CHINA P RP   | 725.74          | 2658.38          |
|                                                          | ITALY        | 182.47          | 691.34           |
|                                                          | FRANCE       | 46.11           | 174.54           |
|                                                          | SPAIN        | 44.63           | 555.28           |
|                                                          | THAILAND     | 44.60           | 312.21           |
|                                                          | <b>TOTAL</b> | <b>1043.55</b>  | <b>4391.75</b>   |
|                                                          | CHINA P RP   | 274.68          | 1026.63          |

**Table-20 Top Five Import Destinations of Selected Chemicals during 2014-15**

| PRODUCT                                 | COUNTRY      | QUANTITY (MT)  | VALUE (RS.Lakh) |
|-----------------------------------------|--------------|----------------|-----------------|
| <b>ACID DIRECT DYES(OTHER THAN AZO)</b> | ITALY        | 43.07          | 149.46          |
|                                         | THAILAND     | 24.17          | 206.84          |
|                                         | SPAIN        | 20.46          | 132.52          |
|                                         | MALAYSIA     | 19.00          | 41.26           |
|                                         | <b>TOTAL</b> | <b>381.37</b>  | <b>1556.71</b>  |
| <b>BASIC DYES</b>                       | CHINA P RP   | 661.45         | 4930.73         |
|                                         | SPAIN        | 30.35          | 83.19           |
|                                         | GERMANY      | 13.42          | 116.81          |
|                                         | MEXICO       | 8.31           | 52.16           |
|                                         | ITALY        | 5.24           | 29.58           |
|                                         | <b>TOTAL</b> | <b>718.77</b>  | <b>5212.47</b>  |
| <b>DISPERSE DYES</b>                    | CHINA P RP   | 2432.21        | 17106.16        |
|                                         | INDONESIA    | 1601.36        | 5765.10         |
|                                         | TAIWAN       | 150.10         | 795.06          |
|                                         | U S A        | 112.17         | 414.55          |
|                                         | GERMANY      | 101.07         | 648.90          |
|                                         | <b>TOTAL</b> | <b>4396.90</b> | <b>24729.77</b> |
| <b>FAST COLOUR BASES</b>                | CHINA P RP   | 305.32         | 1830.35         |
|                                         | U S A        | 9.08           | 430.07          |
|                                         | HUNGARY      | 6.00           | 215.20          |
|                                         | U K          | 3.18           | 10.86           |
|                                         | JAPAN        | 1.18           | 148.93          |
|                                         | <b>TOTAL</b> | <b>324.75</b>  | <b>2635.40</b>  |
| <b>OIL SOLUBLE (SOLVENT DYES)</b>       | CHINA P RP   | 419.15         | 4524.77         |
|                                         | KOREA RP     | 263.64         | 857.23          |
|                                         | TAIWAN       | 26.83          | 277.36          |
|                                         | ITALY        | 22.75          | 63.01           |
|                                         | MALAYSIA     | 14.19          | 46.80           |
|                                         | <b>TOTAL</b> | <b>746.56</b>  | <b>5769.18</b>  |
| <b>OPTICAL WHITENING AGENTS</b>         | SWITZERLAND  | 307.60         | 2824.04         |
|                                         | CHINA P RP   | 160.27         | 1190.47         |
|                                         | PAKISTAN IR  | 43.00          | 17.08           |
|                                         | GERMANY      | 11.00          | 133.63          |
|                                         | SWAZILAND    | 10.00          | 93.04           |
|                                         | <b>TOTAL</b> | <b>531.87</b>  | <b>4258.25</b>  |
|                                         | CHINA P RP   | 84.55          | 140.53          |

**Table-20 Top Five Import Destinations of Selected Chemicals during 2014-15**

| PRODUCT                         | COUNTRY      | QUANTITY (MT)   | VALUE (RS.Lakh) |
|---------------------------------|--------------|-----------------|-----------------|
| ORGANIC PIGMENT                 | ITALY        | 22.07           | 118.19          |
|                                 | BELGIUM      | 17.50           | 87.26           |
|                                 | U S A        | 8.40            | 39.48           |
|                                 | GERMANY      | 3.49            | 46.47           |
|                                 | <b>TOTAL</b> | <b>136.02</b>   | <b>431.93</b>   |
| PIGMENT EMULSION                | CHINA P RP   | 3865.72         | 20862.91        |
|                                 | GERMANY      | 664.34          | 10390.63        |
|                                 | KOREA RP     | 340.69          | 2148.91         |
|                                 | ITALY        | 277.92          | 916.96          |
|                                 | SWITZERLAND  | 269.24          | 4924.86         |
|                                 | <b>TOTAL</b> | <b>5417.91</b>  | <b>39244.25</b> |
| REACTIVE DYES                   | THAILAND     | 1192.36         | 8321.44         |
|                                 | CHINA P RP   | 799.29          | 10943.19        |
|                                 | KOREA RP     | 382.94          | 2317.49         |
|                                 | GERMANY      | 184.51          | 2069.05         |
|                                 | ISRAEL       | 176.75          | 325.34          |
|                                 | <b>TOTAL</b> | <b>2735.84</b>  | <b>23976.50</b> |
| SULPHUR DYES<br>(SULPHUR BLACK) | CHINA P RP   | 876.19          | 2080.50         |
|                                 | SPAIN        | 272.58          | 410.89          |
|                                 | JAPAN        | 1.14            | 3.84            |
|                                 | THAILAND     | 1.00            | 35.09           |
|                                 | U S A        | 0.10            | 5.40            |
|                                 | <b>TOTAL</b> | <b>1151.01</b>  | <b>2535.72</b>  |
| VAT DYES                        | CHINA P RP   | 8338.53         | 26688.89        |
|                                 | SINGAPORE    | 7277.14         | 11999.43        |
|                                 | GERMANY      | 1771.06         | 4218.73         |
|                                 | U S A        | 35.91           | 113.89          |
|                                 | U K          | 11.69           | 121.87          |
|                                 | <b>TOTAL</b> | <b>17434.31</b> | <b>43142.80</b> |
| SOLUBILISED VAT<br>DYES         | SINGAPORE    | 71.91           | 124.50          |
|                                 | CHINA P RP   | 5.55            | 82.86           |
|                                 | U K          | 2.48            | 27.02           |
|                                 | AUSTRALIA    | 1.27            | 2.70            |
|                                 | JAPAN        | 0.38            | 6.83            |
|                                 | <b>TOTAL</b> | <b>81.58</b>    | <b>243.92</b>   |
|                                 | TAIWAN       | 201.60          | 619.39          |

**Table-20 Top Five Import Destinations of Selected Chemicals during 2014-15**

| PRODUCT            | COUNTRY     | QUANTITY (MT) | VALUE (RS.Lakh) |
|--------------------|-------------|---------------|-----------------|
| FOOD COLOURS       | KOREA RP    | 100.62        | 345.69          |
|                    | CHINA P RP  | 62.86         | 409.20          |
|                    | SPAIN       | 62.07         | 173.88          |
|                    | U K         | 52.51         | 652.42          |
|                    | TOTAL       | 479.67        | 2200.57         |
| NAPTHOLS           | CHINA P RP  | 1010.98       | 3761.23         |
|                    | U K         | 6.41          | 48.92           |
|                    | JAPAN       | 2.56          | 56.37           |
|                    | GERMANY     | 1.39          | 10.41           |
|                    | U S A       | 1.00          | 0.73            |
|                    | TOTAL       | 1022.34       | 3877.66         |
| OTHER DYES         | U S A       | 115.25        | 1228.88         |
|                    | GREECE      | 30.40         | 35.93           |
|                    | CHINA P RP  | 23.45         | 87.28           |
|                    | TURKEY      | 20.90         | 90.00           |
|                    | SINGAPORE   | 20.88         | 36.16           |
|                    | TOTAL       | 210.87        | 1478.25         |
| INORGANIC PIGMENTS | U ARAB EMTS | 3378.54       | 3624.66         |
|                    | THAILAND    | 2916.58       | 5628.70         |
|                    | CHINA P RP  | 1509.22       | 4338.28         |
|                    | ISRAEL      | 679.17        | 1500.54         |
|                    | GERMANY     | 664.18        | 3758.85         |
|                    | TOTAL       | 9147.69       | 18851.02        |

**Table -21: Exports of Major Petrochemicals (Group-wise) during 2007-08 to 2014-15**

[QTY in MT & VAL in Rs. Lakh]

| GROUP                                    | 2007-2008 |        | 2008-2009 |        | 2009-2010 |        | 2010-2011 |        | 2011-2012 |        | 2012-2013 |         | 2013-2014 |         | 2014-2015 |         |
|------------------------------------------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|---------|-----------|---------|-----------|---------|
|                                          | QTY       | VAL    | QTY       | VAL    | QTY       | VAL    | QTY       | VAL    | QTY       | VAL    | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     |
| <b>SYNTHETIC FIBRES</b>                  | 395967    | 265869 | 350295    | 252969 | 404281    | 283129 | 576219    | 492991 | 733938    | 717078 | 775729    | 777335  | 906309    | 1010936 | 886211    | 913437  |
| <b>FIBRE INTERMEDIATES</b>               | 50503     | 27032  | 85323     | 32896  | 18105     | 13838  | 50626     | 37046  | 100735    | 78701  | 80823     | 61926   | 67873     | 53980   | 73270     | 57347   |
| <b>POLYMERS</b>                          | 631491    | 353626 | 357445    | 227052 | 657572    | 360065 | 822208    | 500436 | 1163483   | 815325 | 1112662   | 853586  | 1187634   | 1078251 | 903266    | 793550  |
| <b>SYNTHETIC RUBBER (ELASTOMERS)</b>     | 14108     | 9558   | 15985     | 13129  | 15479     | 11986  | 14786     | 14883  | 22128     | 25460  | 11489     | 15082   | 12834     | 21597   | 26040     | 34492   |
| <b>SYNTHETIC DETERGENT INTERMEDIATES</b> | 129867    | 70877  | 90453     | 74968  | 94623     | 61415  | 133709    | 93904  | 74864     | 87518  | 50478     | 50928   | 32971     | 35845   | 27992     | 29004   |
| <b>PERFORMANCE PLASTICS</b>              | 272117    | 149519 | 289733    | 164086 | 294485    | 164547 | 366377    | 255601 | 309593    | 287212 | 347916    | 307451  | 474528    | 440224  | 409365    | 353492  |
| <b>OLEFINS</b>                           | 152851    | 66634  | 119965    | 81935  | 134471    | 77807  | 158503    | 131755 | 130472    | 181191 | 123827    | 138968  | 119411    | 88308   | 72479     | 45302   |
| <b>AROMATICS</b>                         | 1394158   | 609926 | 1117732   | 474224 | 1104618   | 511971 | 1351789   | 612929 | 1445312   | 985016 | 1590660   | 1188161 | 1789251   | 1344539 | 1888275   | 1163302 |
| <b>OTHER PETRO-BASED CHEMICALS</b>       | 121139    | 73185  | 435144    | 68369  | 64773     | 47093  | 184395    | 133682 | 184342    | 145504 | 137082    | 129315  | 96237     | 107611  | 124125    | 143644  |

Note: 1. Product coverage under each group is given at page vii.

2. The data from 2008-09 to 2012-13 is based on ITCHS 2007 and the data for 2013-14 is based on ITCHS 2012

**Table -22: Imports of Major Petrochemicals (Group-wise) during 2007-08 to 2014-15**

| GROUP                                    | 2007-2008 |        | 2008-2009 |        | 2009-2010 |         | 2010-2011 |         | 2011-2012 |         | 2012-2013 |         | 2013-2014 |         | 2014-2015 |         |
|------------------------------------------|-----------|--------|-----------|--------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|
|                                          | QTY       | VAL    | QTY       | VAL    | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     |
| <b>SYNTHETIC FIBRES</b>                  | 140779    | 108541 | 131575    | 111563 | 97860     | 97625   | 120870    | 144087  | 142496    | 181735  | 146950    | 211748  | 154848    | 232303  | 223529    | 289562  |
| <b>FIBRE INTERMEDIATES</b>               | 427254    | 226838 | 708552    | 301849 | 1236826   | 484547  | 1598939   | 777720  | 1315056   | 800960  | 1402774   | 878497  | 1925258   | 1304669 | 2179870   | 1273665 |
| <b>POLYMERS</b>                          | 1152264   | 604585 | 1274604   | 731229 | 2159886   | 1188440 | 2500130   | 1495239 | 2435473   | 1598868 | 3179593   | 2254904 | 3124986   | 2531008 | 3736798   | 3177068 |
| <b>SYNTHETIC RUBBER (ELASTOMERS)</b>     | 341630    | 272896 | 290430    | 343409 | 375884    | 352710  | 446242    | 540793  | 492633    | 794847  | 519670    | 797499  | 580333    | 793037  | 578400    | 758949  |
| <b>SYNTHETIC DETERGENT INTERMEDIATES</b> | 49051     | 23543  | 76357     | 47343  | 91334     | 56129   | 78859     | 60774   | 106852    | 96832   | 127493    | 131685  | 123846    | 139467  | 134035    | 138461  |
| <b>PERFORMANCE PLASTICS</b>              | 89352     | 85944  | 131463    | 119273 | 112247    | 117855  | 192024    | 208769  | 175173    | 254490  | 249709    | 336062  | 310899    | 438390  | 394766    | 496367  |
| <b>OLEFINS</b>                           | 18712     | 8732   | 23726     | 10880  | 34608     | 16822   | 117791    | 53667   | 19855     | 13371   | 34187     | 29316   | 26109     | 21482   | 49255     | 43981   |
| <b>AROMATICS</b>                         | 633018    | 282280 | 520259    | 232590 | 661910    | 290174  | 679025    | 325942  | 760164    | 504683  | 967941    | 764603  | 998399    | 850360  | 1023472   | 712564  |
| <b>OTHER PETRO-BASED CHEMICALS</b>       | 1109498   | 584078 | 1141416   | 605997 | 1320950   | 688941  | 1807833   | 1046288 | 1784500   | 1219192 | 2037034   | 1495971 | 2203984   | 1817179 | 2372654   | 1897349 |

Note: 1. Product coverage under each group is given at page vii.

2. The data from 2008-09 to 2012-13 is based on ITCHS 2007 and the data for 2013-14 is based on ITCHS 2012

**Table -23: Net Imports of Major Petrochemicals (Group-wise) during 2007-08 to 2014-15**

[QTY in MT & VAL in Rs. Lakh]

| GROUP                                | 2007-2008 |         | 2008-2009 |         | 2009-2010 |         | 2010-2011 |         | 2011-2012 |         | 2012-2013 |         | 2013-2014 |         | 2014-2015 |         |
|--------------------------------------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|
|                                      | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     | QTY       | VAL     |
| <b>SYNTHETIC FIBRES</b>              | -255188   | -157328 | -218720   | -141406 | -306421   | -185504 | -455349   | -348904 | -591442   | -535343 | -628779   | -565587 | -751461   | -778633 | -662682   | -623875 |
| <b>FIBRE INTERMEDIATE S</b>          | 376751    | 199806  | 623229    | 268953  | 1218721   | 470709  | 1548313   | 740674  | 1214321   | 722259  | 1321951   | 816571  | 1857385   | 1250689 | 2106600   | 1216318 |
| <b>POLYMERS</b>                      | 520773    | 250959  | 917159    | 504177  | 1502314   | 828375  | 1677922   | 994803  | 1271990   | 783543  | 2066931   | 1401318 | 1937352   | 1452757 | 2833532   | 2383518 |
| <b>SYNTHETIC RUBBER (ELASTOMERS)</b> | 327522    | 263338  | 274445    | 330280  | 360405    | 340724  | 431456    | 525910  | 470505    | 769387  | 508181    | 782417  | 567499    | 771440  | 552360    | 724457  |
| <b>DETERGENT INTERMEDIATE S</b>      | -80816    | -47334  | -14096    | -27625  | -3289     | -5286   | -54850    | -33130  | 31988     | 9314    | 77015     | 80757   | 90875     | 103622  | 106043    | 109457  |
| <b>PERFORMANCE PLASTICS</b>          | 47625     | 55957   | 58693     | 71690   | 76158     | 88378   | 114733    | 145248  | 124759    | 194498  | 149424    | 234135  | 176621    | 294850  | 199213    | 320864  |
| <b>OLEFINS</b>                       | -134139   | -57902  | -96239    | -71055  | -99863    | -60985  | -40712    | -78088  | -110617   | -167820 | -89640    | -109652 | -93302    | -66826  | -23224    | -1321   |
| <b>AROMATICS</b>                     | -761140   | -327646 | -597473   | -241634 | -442708   | -221797 | -672764   | -286987 | -685148   | -480333 | -622719   | -423558 | -790852   | -494179 | -864803   | -450738 |
| <b>OTHER PETRO-BASED CHEMICALS</b>   | 988359    | 510893  | 706272    | 537628  | 1256177   | 641848  | 1623438   | 912606  | 1600158   | 1073688 | 1899952   | 1366656 | 2107747   | 1709568 | 2248529   | 1753705 |

Note: 1. Product coverage under each group is given at page vii.

2. The data from 2008-09 to 2012-13 is based on ITCHS 2007 and the data for 2013-14 is based on ITCHS 2012

**Table -24: Exports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                         | 2007-2008     |               | 2008-2009     |               | 2009-2010     |               | 2010-2011     |               | 2011-2012     |               | 2012-2013     |               | 2013-2014     |                | 2014-2015     |               |
|---------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|---------------|
|                                 | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL            | QTY           | VAL           |
| <b>SYNTHETIC FIBRES</b>         |               |               |               |               |               |               |               |               |               |               |               |               |               |                |               |               |
| ACRYLIC FIBRE                   | 5566          | 6463          | 6439          | 9027          | 10579         | 12600         | 24522         | 44634         | 26383         | 37398         | 19258         | 26183         | 31562         | 47385          | 37420         | 59176         |
| NYLON FILAMENT YARN             | 2803          | 4721          | 2644          | 4936          | 2102          | 4733          | 2110          | 4925          | 1923          | 5412          | 1865          | 5728          | 2023          | 7402           | 1848          | 6939          |
| NYLON INDUSTRIAL YARN/TYRE CORD | 5736          | 8480          | 1570          | 1855          | 2208          | 2783          | 3976          | 5739          | 3733          | 6979          | 3756          | 6810          | 2896          | 5696           | 1752          | 2937          |
| POLYESTER FILAMENT YARN         | 234018        | 164962        | 201807        | 157533        | 227292        | 171651        | 391220        | 330277        | 524093        | 510458        | 576224        | 588908        | 647732        | 743768         | 648773        | 677742        |
| POLYESTER STAPLE FIBRE          | 145825        | 79363         | 136370        | 78080         | 160828        | 89940         | 152487        | 105285        | 176000        | 154451        | 170318        | 144355        | 205341        | 187652         | 183575        | 151547        |
| POLYPROPYLENE FILAMENT YARN     | 1079          | 1095          | 571           | 688           | 767           | 1009          | 1259          | 1476          | 1235          | 1582          | 2008          | 2694          | 1863          | 2813           | 2232          | 3234          |
| POLYPROPYLENE STAPLE FIBRE      | 940           | 785           | 894           | 850           | 505           | 413           | 645           | 655           | 571           | 798           | 2300          | 2657          | 14892         | 16220          | 10611         | 11862         |
| <b>TOTAL</b>                    | <b>395967</b> | <b>265869</b> | <b>350295</b> | <b>252969</b> | <b>404281</b> | <b>283129</b> | <b>576219</b> | <b>492991</b> | <b>733938</b> | <b>717078</b> | <b>775729</b> | <b>777335</b> | <b>906309</b> | <b>1010936</b> | <b>886211</b> | <b>913437</b> |
| <b>FIBRE INTERMEDIATES</b>      |               |               |               |               |               |               |               |               |               |               |               |               |               |                |               |               |
| ACRYLONITRILE                   | 76            | 450           | 2877          | 1184          | 1             | 3             | 1             | 2             | 5598          | 6048          | 2103          | 2747          | 2             | 5              | 4             | 85            |
| CAPROLACTUM                     | 2787          | 2930          | 7773          | 5986          | 12404         | 11892         | 13777         | 21658         | 13448         | 20052         | 3343          | 4853          | 514           | 902            | 0             | 1             |
| DIMETHYL TEREPHTHALATE          | 299           | 129           | 0             | 0             | 1             | 1             | 5             | 15            | 3             | 11            | 0             | 0             | 1             | 2              | 0             | 0             |
| MONO EHYLENE GLYCOL             | 44306         | 22393         | 34570         | 11194         | 5577          | 1710          | 35959         | 15116         | 66483         | 45720         | 71796         | 52515         | 67032         | 53008          | 73216         | 57216         |
| PURIFIED TEREPHTHALIC ACID      | 3035          | 1130          | 40103         | 14532         | 122           | 232           | 884           | 255           | 15203         | 6870          | 3581          | 1811          | 324           | 63             | 50            | 45            |
| <b>TOTAL</b>                    | <b>50503</b>  | <b>27032</b>  | <b>85323</b>  | <b>32896</b>  | <b>18105</b>  | <b>13838</b>  | <b>50626</b>  | <b>37046</b>  | <b>100735</b> | <b>78701</b>  | <b>80823</b>  | <b>61926</b>  | <b>67873</b>  | <b>53980</b>   | <b>73270</b>  | <b>57347</b>  |
| <b>POLYMERS</b>                 |               |               |               |               |               |               |               |               |               |               |               |               |               |                |               |               |

**Table -24: Exports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                                  | 2007-2008     |               | 2008-2009     |               | 2009-2010     |               | 2010-2011     |               | 2011-2012      |               | 2012-2013      |               | 2013-2014      |                | 2014-2015     |               |
|------------------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|---------------|---------------|
|                                          | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL            | QTY           | VAL           |
| LOW DENSITY POLYETHYLENE                 | 10937         | 6885          | 7536          | 4466          | 5739          | 3363          | 11919         | 9167          | 12670          | 10470         | 16892          | 15296         | 18369          | 20153          | 21519         | 23853         |
| HIGH DENSITY POLYTHYLENE                 | 134646        | 75109         | 101525        | 58931         | 21488         | 12626         | 133485        | 81358         | 239546         | 159380        | 159341         | 123866        | 113344         | 103538         | 51663         | 51095         |
| POLYESTYRENE                             | 83663         | 51784         | 60678         | 39922         | 56109         | 35285         | 62670         | 43175         | 60982          | 48710         | 74137          | 68035         | 83962          | 91765          | 73695         | 69174         |
| POLYPROPYLENE (INC. CO-POLYMER)          | 364968        | 197406        | 154992        | 101826        | 564444        | 302365        | 582285        | 347506        | 816005         | 571653        | 828236         | 616817        | 943284         | 832814         | 726906        | 620745        |
| EXPANDABLE POLYESTYRENE                  | 2120          | 1304          | 937           | 540           | 2719          | 1455          | 178           | 127           | 377            | 280           | 3830           | 3689          | 3646           | 4413           | 4810          | 5489          |
| POLY VINYL CHLORIDE                      | 4724          | 2300          | 1419          | 850           | 798           | 555           | 10850         | 5185          | 3632           | 2990          | 1267           | 1462          | 1332           | 2754           | 1988          | 2085          |
| DENSITY POLYTHYLENE                      | 26033         | 16356         | 26434         | 18067         | 2502          | 2323          | 14809         | 10428         | 23007          | 16734         | 21821          | 18582         | 13451          | 13366          | 10854         | 10267         |
| PVC COMPOUND                             | 4400          | 2482          | 3924          | 2450          | 3773          | 2093          | 6012          | 3490          | 7264           | 5108          | 7138           | 5839          | 10246          | 9448           | 11831         | 10842         |
| <b>TOTAL</b>                             | <b>631491</b> | <b>353626</b> | <b>357445</b> | <b>227052</b> | <b>657572</b> | <b>360065</b> | <b>822208</b> | <b>500436</b> | <b>1163483</b> | <b>815325</b> | <b>1112662</b> | <b>853586</b> | <b>1187634</b> | <b>1078251</b> | <b>903266</b> | <b>793550</b> |
| <b>SYNTHETIC RUBBER (ELASTOMERS)</b>     |               |               |               |               |               |               |               |               |                |               |                |               |                |                |               |               |
| STYRENE BUTADIENE RUBBER                 | 8151          | 4635          | 7431          | 5180          | 7309          | 4552          | 7388          | 5985          | 7516           | 9142          | 7646           | 8461          | 7483           | 8024           | 18007         | 17961         |
| POLY BUTADIENE RUBBER                    | 57            | 61            | 1279          | 511           | 911           | 870           | 1874          | 1772          | 185            | 408           | 1173           | 1947          | 267            | 388            | 1919          | 1978          |
| ETHYL PROPYLENE DIMERS                   | 1817          | 1533          | 2339          | 2198          | 2074          | 2262          | 2577          | 3258          | 3063           | 4830          | 1182           | 1916          | 2075           | 7096           | 2915          | 8114          |
| ETHYL VINYL ACETATE                      | 2574          | 1963          | 1350          | 1320          | 662           | 644           | 1072          | 986           | 374            | 453           | 804            | 848           | 1215           | 1494           | 1141          | 1734          |
| NITRILE BUTADIENE RUBBER                 | 1376          | 1238          | 3180          | 3637          | 3430          | 3088          | 1404          | 2286          | 10778          | 10059         | 431            | 1297          | 446            | 1557           | 444           | 1124          |
| BUTYL RUBBER                             | 133           | 128           | 406           | 283           | 1093          | 570           | 471           | 596           | 212            | 568           | 253            | 613           | 1348           | 3038           | 1614          | 3581          |
| <b>TOTAL</b>                             | <b>14108</b>  | <b>9558</b>   | <b>15985</b>  | <b>13129</b>  | <b>15479</b>  | <b>11986</b>  | <b>14786</b>  | <b>14883</b>  | <b>22128</b>   | <b>25460</b>  | <b>11489</b>   | <b>15082</b>  | <b>12834</b>   | <b>21597</b>   | <b>26040</b>  | <b>34492</b>  |
| <b>SYNTHETIC DETERGENT INTERMEDIATES</b> |               |               |               |               |               |               |               |               |                |               |                |               |                |                |               |               |

**Table -24: Exports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                        | 2007-2008     |               | 2008-2009     |               | 2009-2010     |               | 2010-2011     |               | 2011-2012     |               | 2012-2013     |               | 2013-2014     |               | 2014-2015     |               |
|--------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                                | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           |
| LINEAR ALKYL BENZENE           | 129549        | 70361         | 90199         | 74552         | 93920         | 60415         | 133368        | 93397         | 74555         | 86732         | 50068         | 50134         | 32493         | 34657         | 27199         | 27204         |
| ETHYLENE OXIDE                 | 318           | 516           | 254           | 416           | 703           | 1000          | 341           | 507           | 309           | 786           | 410           | 794           | 478           | 1188          | 793           | 1800          |
| <b>TOTAL</b>                   | <b>129867</b> | <b>70877</b>  | <b>90453</b>  | <b>74968</b>  | <b>94623</b>  | <b>61415</b>  | <b>133709</b> | <b>93904</b>  | <b>74864</b>  | <b>87518</b>  | <b>50478</b>  | <b>50928</b>  | <b>32971</b>  | <b>35845</b>  | <b>27992</b>  | <b>29004</b>  |
| <b>PERFORMANCE PLASTICS</b>    |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| ABS RESIN                      | 1307          | 988           | 1539          | 959           | 60            | 40            | 5272          | 4925          | 807           | 915           | 666           | 780           | 303           | 424           | 225           | 281           |
| NYLON-6                        | 3750          | 3709          | 2621          | 3456          | 3656          | 4705          | 4108          | 5937          | 5912          | 9804          | 9915          | 16353         | 15308         | 25961         | 16715         | 28775         |
| POLYMETHYL METHACRYLATE        | 4404          | 2679          | 4439          | 3311          | 5391          | 4323          | 5497          | 5631          | 5545          | 5747          | 7849          | 8626          | 9775          | 12115         | 9306          | 11215         |
| STYRENE ACRYLONITRILE          | 19            | 13            | 8             | 6             | 8             | 9             | 11            | 21            | 33            | 66            | 43            | 69            | 275           | 249           | 120           | 158           |
| POLYESTER CHIPS/PET CHIPS      | 262502        | 141746        | 279168        | 153360        | 284200        | 152464        | 346071        | 220251        | 290894        | 229867        | 324307        | 256947        | 443104        | 372102        | 375421        | 274943        |
| POLYTETRAFLUORO ETHYLENE(PTFE) | 135           | 384           | 1958          | 2994          | 1170          | 3006          | 5418          | 18836         | 6402          | 40813         | 5136          | 24676         | 5763          | 29373         | 7578          | 38120         |
| <b>TOTAL</b>                   | <b>272117</b> | <b>149519</b> | <b>289733</b> | <b>164086</b> | <b>294485</b> | <b>164547</b> | <b>366377</b> | <b>255601</b> | <b>309593</b> | <b>287212</b> | <b>347916</b> | <b>307451</b> | <b>474528</b> | <b>440224</b> | <b>409365</b> | <b>353492</b> |
| <b>OLEFINS</b>                 |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| BUTADIENE                      | 132948        | 59324         | 119951        | 81927         | 110897        | 66190         | 134087        | 121198        | 121393        | 176675        | 117626        | 135098        | 119410        | 88301         | 72479         | 45301         |
| ETHYLENE                       | 12897         | 4615          | 11            | 3             | 14            | 35            | 44            | 31            | 7             | 6             | 1             | 4             | 1             | 7             | 0             | 1             |
| PROPYLENE                      | 7006          | 2695          | 3             | 5             | 23560         | 11582         | 24372         | 10526         | 9072          | 4510          | 6200          | 3866          | 0             | 0             | 0             | 0             |
| <b>TOTAL</b>                   | <b>152851</b> | <b>66634</b>  | <b>119965</b> | <b>81935</b>  | <b>134471</b> | <b>77807</b>  | <b>158503</b> | <b>131755</b> | <b>130472</b> | <b>181191</b> | <b>123827</b> | <b>138968</b> | <b>119411</b> | <b>88308</b>  | <b>72479</b>  | <b>45302</b>  |
| <b>AROMATICS</b>               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| BENZENE                        | 323755        | 134665        | 409757        | 148391        | 399836        | 173123        | 567717        | 225586        | 501894        | 279998        | 652963        | 445735        | 635749        | 437813        | 576741        | 348900        |

**Table -24: Exports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                            | [QTY in MT & VAL in Rs. Lakh] |               |                |               |                |               |                |               |                |               |                |                |                |                |                |                |
|------------------------------------|-------------------------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                    | 2007-2008                     |               | 2008-2009      |               | 2009-2010      |               | 2010-2011      |               | 2011-2012      |               | 2012-2013      |                | 2013-2014      |                | 2014-2015      |                |
|                                    | QTY                           | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            |
| MIXED XYLENE                       | 194298                        | 71181         | 110056         | 47770         | 59158          | 20126         | 72334          | 29652         | 148512         | 87950         | 141564         | 104472         | 187239         | 139394         | 10464          | 6923           |
| ORTHO-XYLENE                       | 133635                        | 55609         | 104360         | 46791         | 181348         | 78509         | 341918         | 160600        | 187083         | 121039        | 210822         | 163337         | 229010         | 172190         | 227007         | 138341         |
| TOLUENE                            | 1961                          | 788           | 2026           | 1171          | 1993           | 834           | 4119           | 2209          | 5465           | 3535          | 5412           | 4167           | 14798          | 11449          | 9994           | 6409           |
| PARAXYLENE                         | 740509                        | 347683        | 491533         | 230101        | 462283         | 239379        | 365701         | 194882        | 602358         | 492494        | 579899         | 470450         | 722455         | 583693         | 1064069        | 662729         |
| <b>TOTAL</b>                       | <b>1394158</b>                | <b>609926</b> | <b>1117732</b> | <b>474224</b> | <b>1104618</b> | <b>511971</b> | <b>1351789</b> | <b>612929</b> | <b>1445312</b> | <b>985016</b> | <b>1590660</b> | <b>1188161</b> | <b>1789251</b> | <b>1344539</b> | <b>1888275</b> | <b>1163302</b> |
| <b>OTHER PETRO-BASED CHEMICALS</b> |                               |               |                |               |                |               |                |               |                |               |                |                |                |                |                |                |
| ETHYLENE DICHLORIDE                | 681                           | 1107          | 531            | 1109          | 17             | 5             | 0              | 0             | 0              | 3             | 3200           | 554            | 9              | 5              | 21             | 14             |
| BUTANOL                            | 1700                          | 1615          | 2640           | 2443          | 3358           | 2402          | 5454           | 4463          | 3591           | 4458          | 4762           | 5986           | 2186           | 3583           | 759            | 993            |
| OXO ALCOHOL                        | 510                           | 470           | 448            | 663           | 396            | 925           | 339            | 1415          | 383            | 740           | 812            | 983            | 1188           | 1133           | 1191           | 907            |
| 2-ETHYL HEXANOL                    | 3                             | 124           | 8              | 20            | 110            | 410           | 20             | 530           | 78             | 808           | 47             | 1001           | 321            | 654            | 6391           | 6405           |
| VINYL CHLORIDE MONOMER             | 2                             | 15            | 24             | 14            | 0              | 0             | 26             | 39            | 0              | 0             | 0              | 0              | 1              | 8              | 0              | 0              |
| EPICHLHYDRINE                      | 3                             | 3             | 8              | 8             | 10             | 9             | 8              | 13            | 19             | 24            | 13             | 10             | 4              | 7              | 14             | 19             |
| ISO BUTYLENE                       | 43                            | 38            | 31             | 6             | 100            | 48            | 1              | 1             | 0              | 1             | 0              | 0              | 1815           | 1382           | 1              | 2              |
| METAXYLENE                         | 40                            | 17            | 10862          | 2255          | 37             | 22            | 109406         | 71083         | 92344          | 61389         | 41061          | 32749          | 4              | 13             | 23             | 146            |
| METHYL ISOBUTYL KETONE             | 476                           | 260           | 82             | 72            | 3              | 11            | 107            | 91            | 539            | 519           | 5              | 71             | 24             | 53             | 206            | 364            |
| PIB                                | 4262                          | 2389          | 5215           | 3502          | 5169           | 3168          | 6167           | 4020          | 6623           | 5529          | 4285           | 4739           | 5896           | 7554           | 4993           | 5925           |
| POLYCARBONATE                      | 1997                          | 2833          | 963            | 1860          | 1433           | 3556          | 3368           | 6650          | 2355           | 3671          | 2509           | 4332           | 3022           | 6103           | 2459           | 2772           |
| PROPYLENE OXIDE                    | 280                           | 379           | 66             | 62            | 0              | 0             | 0              | 4             | 0              | 0             | 0              | 0              | 0              | 0              | 0              | 0              |

**Table -24: Exports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                        | [QTY in MT & VAL in Rs. Lakh] |              |               |              |              |              |               |               |               |               |               |               |              |               |               |               |
|--------------------------------|-------------------------------|--------------|---------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|--------------|---------------|---------------|---------------|
|                                | 2007-2008                     |              | 2008-2009     |              | 2009-2010    |              | 2010-2011     |               | 2011-2012     |               | 2012-2013     |               | 2013-2014    |               | 2014-2015     |               |
|                                | QTY                           | VAL          | QTY           | VAL          | QTY          | VAL          | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY          | VAL           | QTY           | VAL           |
| PROPYLENE GLYCOL               | 729                           | 481          | 894           | 737          | 1151         | 758          | 1178          | 971           | 908           | 879           | 2593          | 1953          | 818          | 986           | 773           | 1043          |
| POLYVINYL<br>ACETATE RESIN     | 3840                          | 1785         | 4442          | 2528         | 3583         | 1923         | 6877          | 4415          | 10077         | 8188          | 14064         | 11563         | 15509        | 13643         | 15456         | 15384         |
| UNSATURATED<br>POLYESTER RESIN | 12202                         | 8665         | 14197         | 11367        | 9919         | 6653         | 9131          | 7849          | 9455          | 9479          | 10709         | 12477         | 10750        | 14533         | 12660         | 17074         |
| ETHYL BENZENE                  | 297                           | 369          | 551           | 725          | 16           | 24           | 0             | 0             | 3             | 1             | 4             | 4             | 0            | 0             | 0             | 0             |
| CELLULOSE<br>ACETATE BUTYRATE  | 2173                          | 1116         | 17            | 28           | 5            | 39           | 25            | 31            | 10            | 15            | 53            | 78            | 93           | 163           | 44            | 93            |
| CELLULOSE<br>ACETATE SHEET     | 74                            | 57           | 137           | 195          | 18           | 42           | 147           | 164           | 17            | 36            | 159           | 166           | 63           | 152           | 33            | 84            |
| CELLULOSE NITRATE<br>SHEET     | 45                            | 28           | 48            | 81           | 6            | 6            | 112           | 96            | 8             | 14            | 46            | 19            | 3            | 14            | 12            | 16            |
| MELAMINE<br>MOULDING POWDER    | 834                           | 571          | 765           | 627          | 377          | 304          | 1079          | 743           | 1051          | 914           | 1160          | 940           | 2168         | 1431          | 6339          | 2284          |
| POLYACETAL RESIN               | 162                           | 127          | 311           | 376          | 527          | 517          | 1252          | 933           | 710           | 703           | 279           | 403           | 540          | 654           | 537           | 598           |
| PHTHALIC<br>ANHYDRIDE          | 71272                         | 37480        | 41744         | 20662        | 19581        | 9513         | 18480         | 10012         | 24993         | 17036         | 12812         | 11478         | 23182        | 20259         | 38634         | 26744         |
| STYRENE                        | 2619                          | 1505         | 4294          | 2914         | 801          | 520          | 1810          | 1207          | 7521          | 4847          | 17327         | 16323         | 2242         | 2392          | 6940          | 6623          |
| VINYL ACTATE<br>MONOMER        | 3093                          | 1813         | 332230        | 630          | 2413         | 977          | 1062          | 500           | 2227          | 1240          | 1342          | 822           | 4096         | 2635          | 1562          | 1392          |
| ISOPROPANOL                    | 8783                          | 4228         | 7224          | 4382         | 4451         | 3733         | 7330          | 6099          | 9598          | 12753         | 3846          | 4149          | 3334         | 4053          | 6139          | 6508          |
| POLYOL                         | 5019                          | 5710         | 7412          | 11103        | 11292        | 11528        | 11016         | 12353         | 11832         | 12257         | 15994         | 18515         | 18969        | 26201         | 18938         | 48254         |
| <b>TOTAL</b>                   | <b>121139</b>                 | <b>73185</b> | <b>435144</b> | <b>68369</b> | <b>64773</b> | <b>47093</b> | <b>184395</b> | <b>133682</b> | <b>184342</b> | <b>145504</b> | <b>137082</b> | <b>129315</b> | <b>96237</b> | <b>107611</b> | <b>124125</b> | <b>143644</b> |

**Table - 25 : Imports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                         | [QTY in MT & VAL in Rs. Lakh] |               |               |               |                |               |                |               |                |               |                |               |                |                |                |                |
|---------------------------------|-------------------------------|---------------|---------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|
|                                 | 2007-2008                     |               | 2008-2009     |               | 2009-2010      |               | 2010-2011      |               | 2011-2012      |               | 2012-2013      |               | 2013-2014      |                | 2014-2015      |                |
|                                 | QTY                           | VAL           | QTY           | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL            | QTY            | VAL            |
| <b>SYNTHETIC FIBRES</b>         |                               |               |               |               |                |               |                |               |                |               |                |               |                |                |                |                |
| ACRYLIC FIBRE                   | 9427                          | 9611          | 14015         | 15659         | 14568          | 16723         | 23611          | 33365         | 20200          | 27538         | 29359          | 42077         | 32990          | 53051          | 36339          | 60959          |
| NYLON FILAMENT YARN             | 3974                          | 5674          | 6023          | 8712          | 6624           | 10886         | 18138          | 31224         | 22907          | 45227         | 24067          | 52783         | 24295          | 54650          | 27813          | 59448          |
| NYLON INDUSTRIAL YARN/TYRE CORD | 7659                          | 11903         | 2763          | 3957          | 10789          | 14581         | 12269          | 18388         | 9068           | 16629         | 11912          | 21275         | 7022           | 13749          | 3750           | 7035           |
| POLYESTER FILAMENT YARN         | 100820                        | 67880         | 90458         | 69956         | 50095          | 43944         | 33692          | 36053         | 43409          | 52693         | 50013          | 64792         | 46713          | 67653          | 72718          | 89105          |
| POLYESTER STAPLE FIBRE          | 16119                         | 10654         | 16483         | 11412         | 14417          | 10040         | 31549          | 23070         | 44677          | 36811         | 29670          | 27653         | 42635          | 41577          | 81864          | 71552          |
| POLYPROPYLENE FILAMENT YARN     | 2500                          | 2516          | 1711          | 1704          | 1214           | 1283          | 1489           | 1827          | 1899           | 2396          | 1598           | 2673          | 792            | 1056           | 716            | 1002           |
| POLYPROPYLENE STAPLE FIBRE      | 280                           | 303           | 122           | 163           | 153            | 168           | 122            | 160           | 336            | 441           | 331            | 495           | 401            | 567            | 329            | 461            |
| <b>TOTAL</b>                    | <b>140779</b>                 | <b>108541</b> | <b>131575</b> | <b>111563</b> | <b>97860</b>   | <b>97625</b>  | <b>120870</b>  | <b>144087</b> | <b>142496</b>  | <b>181735</b> | <b>146950</b>  | <b>211748</b> | <b>154848</b>  | <b>232303</b>  | <b>223529</b>  | <b>289562</b>  |
| <b>FIBRE INTERMEDIATES</b>      |                               |               |               |               |                |               |                |               |                |               |                |               |                |                |                |                |
| ACRYLONITRILE                   | 81832                         | 61838         | 81568         | 57315         | 64693          | 42104         | 72618          | 73592         | 77357          | 77714         | 81964          | 83719         | 100862         | 111632         | 97388          | 118956         |
| CAPROLACTUM                     | 24903                         | 24396         | 16981         | 19745         | 11292          | 8933          | 6334           | 8158          | 5381           | 9121          | 15917          | 21673         | 23494          | 34307          | 32276          | 43571          |
| DIMETHYL TEREPHTHALATE          | 4060                          | 1855          | 4088          | 2760          | 4171           | 1906          | 4428           | 2554          | 2815           | 2021          | 2104           | 1592          | 1786           | 1466           | 2094           | 1594           |
| MONO EHYLENE GLYCOL             | 254734                        | 117025        | 424427        | 145042        | 682182         | 225455        | 771189         | 318756        | 634589         | 356418        | 654831         | 374593        | 820724         | 512134         | 1003540        | 550364         |
| PURIFIED TEREPHTHALIC ACID      | 61725                         | 21724         | 181488        | 76987         | 474488         | 206149        | 744370         | 374660        | 594914         | 355686        | 647958         | 396920        | 978392         | 645130         | 1044572        | 559180         |
| <b>TOTAL</b>                    | <b>427254</b>                 | <b>226838</b> | <b>708552</b> | <b>301849</b> | <b>1236826</b> | <b>484547</b> | <b>1598939</b> | <b>777720</b> | <b>1315056</b> | <b>800960</b> | <b>1402774</b> | <b>878497</b> | <b>1925258</b> | <b>1304669</b> | <b>2179870</b> | <b>1273665</b> |
| <b>POLYMERS</b>                 |                               |               |               |               |                |               |                |               |                |               |                |               |                |                |                |                |
| LOW DENSITY POLYETHYLENE        | 82025                         | 46454         | 88875         | 55719         | 161628         | 98082         | 196418         | 129714        | 197507         | 143289        | 264483         | 204752        | 256147         | 239302         | 325901         | 295717         |

**Table - 25 : Imports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                                  | [QTY in MT & VAL in Rs. Lakh] |               |                |               |                |                |                |                |                |                |                |                |                |                |                |                |
|------------------------------------------|-------------------------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                          | 2007-2008                     |               | 2008-2009      |               | 2009-2010      |                | 2010-2011      |                | 2011-2012      |                | 2012-2013      |                | 2013-2014      |                | 2014-2015      |                |
|                                          | QTY                           | VAL           | QTY            | VAL           | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            |
| HIGH DENSITY POLYTHYLENE                 | 255190                        | 150540        | 274868         | 176619        | 468120         | 279273         | 514445         | 306105         | 422712         | 298381         | 639062         | 464130         | 575117         | 545552         | 842892         | 811233         |
| POLYESTYRENE                             | 21046                         | 12218         | 14699          | 11796         | 18221          | 17790          | 29461          | 26062          | 29218          | 30824          | 35949          | 45289          | 37772          | 49378          | 39647          | 50104          |
| POLYPROPYLENE (INC. CO-POLYMER)          | 211695                        | 122776        | 285074         | 162450        | 425307         | 256504         | 425286         | 285760         | 398100         | 317819         | 497691         | 427654         | 479176         | 472948         | 611673         | 589950         |
| EXPANDABLE POLYESTYRENE                  | 8947                          | 6097          | 4703           | 3585          | 5369           | 3595           | 7454           | 5257           | 5722           | 4740           | 4560           | 4436           | 3978           | 4682           | 3113           | 3441           |
| POLY VINYL CHLORIDE                      | 355702                        | 143614        | 338650         | 152028        | 629102         | 270822         | 671309         | 329720         | 851336         | 443759         | 1133124        | 647857         | 1208529        | 755732         | 1293338        | 854467         |
| LINEAR LOW DENSITY POLYTHYLENE           | 170471                        | 102261        | 223250         | 146465        | 378338         | 228495         | 584888         | 374061         | 464211         | 316607         | 538849         | 414080         | 499817         | 413556         | 550109         | 515931         |
| PVC COMPOUND                             | 47188                         | 20625         | 44485          | 22567         | 73801          | 33879          | 70869          | 38560          | 66667          | 43449          | 65875          | 46706          | 64450          | 49858          | 70125          | 56225          |
| <b>TOTAL</b>                             | <b>1152264</b>                | <b>604585</b> | <b>1274604</b> | <b>731229</b> | <b>2159886</b> | <b>1188440</b> | <b>2500130</b> | <b>1495239</b> | <b>2435473</b> | <b>1598868</b> | <b>3179593</b> | <b>2254904</b> | <b>3124986</b> | <b>2531008</b> | <b>3736798</b> | <b>3177068</b> |
| <b>SYNTHETIC RUBBER (ELASTOMERS)</b>     |                               |               |                |               |                |                |                |                |                |                |                |                |                |                |                |                |
| STYRENE BUTADIENE RUBBER                 | 112794                        | 80051         | 98297          | 96105         | 144393         | 103912         | 190300         | 186607         | 212549         | 329092         | 206663         | 292471         | 239544         | 287779         | 223549         | 264399         |
| POLY BUTADIENE RUBBER                    | 28245                         | 21872         | 23312          | 27877         | 50385          | 39186          | 49000          | 62256          | 65935          | 111555         | 71052          | 115107         | 86200          | 109762         | 70471          | 79518          |
| ETHYL PROPYLENE DIMERS                   | 17539                         | 17048         | 15837          | 18996         | 21187          | 23819          | 28391          | 37231          | 29231          | 54698          | 28373          | 60006          | 30347          | 50127          | 33348          | 54653          |
| ETHYL VINYL ACETATE                      | 117775                        | 71162         | 89773          | 76757         | 77807          | 67380          | 90773          | 87925          | 83186          | 92285          | 108324         | 109280         | 114764         | 125169         | 139414         | 155970         |
| NITRILE BUTADIENE RUBBER                 | 13270                         | 12428         | 9924           | 14113         | 14916          | 14811          | 16887          | 23822          | 19615          | 34667          | 26733          | 47496          | 29596          | 45051          | 26719          | 44760          |
| BUTYL RUBBER                             | 52007                         | 70335         | 53287          | 109561        | 67196          | 103602         | 70891          | 142952         | 82117          | 172550         | 78525          | 173139         | 79882          | 175149         | 84899          | 159649         |
| <b>TOTAL</b>                             | <b>341630</b>                 | <b>272896</b> | <b>290430</b>  | <b>343409</b> | <b>375884</b>  | <b>352710</b>  | <b>446242</b>  | <b>540793</b>  | <b>492633</b>  | <b>794847</b>  | <b>519670</b>  | <b>797499</b>  | <b>580333</b>  | <b>793037</b>  | <b>578400</b>  | <b>758949</b>  |
| <b>SYNTHETIC DETERGENT INTERMEDIATES</b> |                               |               |                |               |                |                |                |                |                |                |                |                |                |                |                |                |
| LINEAR ALKYL BENZENE                     | 48753                         | 23255         | 76115          | 46829         | 91248          | 55862          | 78759          | 60557          | 106813         | 96564          | 127440         | 131486         | 123825         | 139218         | 133994         | 137918         |
| ETHYLENE OXIDE                           | 298                           | 288           | 242            | 514           | 86             | 267            | 100            | 217            | 39             | 268            | 53             | 199            | 21             | 249            | 41             | 543            |

**Table - 25 : Imports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                           | 2007-2008    |              | 2008-2009     |               | 2009-2010     |               | 2010-2011     |               | 2011-2012     |               | 2012-2013     |               | 2013-2014     |               | 2014-2015     |               |
|-----------------------------------|--------------|--------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
|                                   | QTY          | VAL          | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           |
| <b>TOTAL</b>                      | <b>49051</b> | <b>23543</b> | <b>76357</b>  | <b>47343</b>  | <b>91334</b>  | <b>56129</b>  | <b>78859</b>  | <b>60774</b>  | <b>106852</b> | <b>96832</b>  | <b>127493</b> | <b>131685</b> | <b>123846</b> | <b>139467</b> | <b>134035</b> | <b>138461</b> |
| <b>PERFORMANCE PLASTICS</b>       |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| ABS RESIN                         | 13365        | 11550        | 21073         | 19409         | 30368         | 26744         | 46224         | 50870         | 45470         | 53929         | 56897         | 72383         | 63020         | 86113         | 69910         | 94132         |
| NYLON-6                           | 31035        | 41317        | 34919         | 50607         | 44865         | 60807         | 60739         | 93809         | 74662         | 135583        | 88264         | 159031        | 114365        | 214028        | 133891        | 237580        |
| POLYMETHYL<br>METHACRYLATE        | 6510         | 6161         | 5247          | 6029          | 7141          | 7816          | 17748         | 12576         | 12444         | 17024         | 16488         | 21487         | 18924         | 25935         | 15367         | 21697         |
| STYRENE<br>ACRYLONITRILE          | 6195         | 4318         | 6061          | 3377          | 2899          | 2088          | 4910          | 4507          | 4480          | 4494          | 6248          | 7062          | 5973          | 7523          | 6411          | 7884          |
| POLYESTER CHIPS/PET<br>CHIPS      | 30082        | 15036        | 62150         | 32009         | 25064         | 13376         | 60290         | 37519         | 35978         | 27152         | 79743         | 60854         | 106283        | 90135         | 167015        | 123074        |
| POLYTETRAFLUOROETH<br>YLENE(PTFE) | 2165         | 7562         | 2013          | 7842          | 1910          | 7024          | 2113          | 9488          | 2139          | 16308         | 2069          | 15245         | 2334          | 14656         | 2172          | 12000         |
| <b>TOTAL</b>                      | <b>89352</b> | <b>85944</b> | <b>131463</b> | <b>119273</b> | <b>112247</b> | <b>117855</b> | <b>192024</b> | <b>208769</b> | <b>175173</b> | <b>254490</b> | <b>249709</b> | <b>336062</b> | <b>310899</b> | <b>438390</b> | <b>394766</b> | <b>496367</b> |
| <b>OLEFINS</b>                    |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| BUTADIENE                         | 4512         | 1522         | 3776          | 1443          | 15            | 39            | 3077          | 1761          | 5035          | 4539          | 9187          | 10430         | 1071          | 820           | 3223          | 2823          |
| ETHYLENE                          | 14079        | 6982         | 19881         | 9163          | 34549         | 16505         | 114550        | 51549         | 14667         | 8223          | 23784         | 17219         | 24791         | 19461         | 43905         | 38467         |
| PROPYLENE                         | 121          | 228          | 69            | 274           | 44            | 278           | 164           | 357           | 153           | 609           | 1216          | 1667          | 247           | 1201          | 2127          | 2691          |
| <b>TOTAL</b>                      | <b>18712</b> | <b>8732</b>  | <b>23726</b>  | <b>10880</b>  | <b>34608</b>  | <b>16822</b>  | <b>117791</b> | <b>53667</b>  | <b>19855</b>  | <b>13371</b>  | <b>34187</b>  | <b>29316</b>  | <b>26109</b>  | <b>21482</b>  | <b>49255</b>  | <b>43981</b>  |
| <b>AROMATICS</b>                  |              |              |               |               |               |               |               |               |               |               |               |               |               |               |               |               |
| BENZENE                           | 20342        | 9675         | 51859         | 15208         | 123011        | 46067         | 48410         | 22786         | 43465         | 23677         | 50660         | 32106         | 5250          | 3146          | 47            | 35            |
| MIXED XYLENE                      | 0            | 1            | 1             | 1             | 2802          | 1149          | 11            | 21            | 24            | 75            | 169           | 197           | 5567          | 4339          | 1647          | 1155          |
| ORTHO-XYLENE                      | 109947       | 49924        | 87240         | 44327         | 44246         | 19829         | 39866         | 20455         | 35499         | 23839         | 45134         | 37444         | 44879         | 41678         | 35697         | 23547         |

**Table - 25 : Imports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                            | [QTY in MT & VAL in Rs. Lakh] |               |               |               |               |               |               |               |               |               |               |               |               |               |                |               |
|------------------------------------|-------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|----------------|---------------|
|                                    | 2007-2008                     |               | 2008-2009     |               | 2009-2010     |               | 2010-2011     |               | 2011-2012     |               | 2012-2013     |               | 2013-2014     |               | 2014-2015      |               |
|                                    | QTY                           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY           | VAL           | QTY            | VAL           |
| TOLUENE                            | 142896                        | 53918         | 145719        | 57228         | 198906        | 78644         | 187442        | 77449         | 245391        | 139206        | 307145        | 215447        | 263759        | 193333        | 287877         | 183823        |
| PARAXYLENE                         | 359833                        | 168762        | 235440        | 115826        | 292945        | 144485        | 403296        | 205231        | 435785        | 317886        | 564833        | 479409        | 678944        | 607864        | 698204         | 504004        |
| <b>TOTAL</b>                       | <b>633018</b>                 | <b>282280</b> | <b>520259</b> | <b>232590</b> | <b>661910</b> | <b>290174</b> | <b>679025</b> | <b>325942</b> | <b>760164</b> | <b>504683</b> | <b>967941</b> | <b>764603</b> | <b>998399</b> | <b>850360</b> | <b>1023472</b> | <b>712564</b> |
| <b>OTHER PETRO-BASED CHEMICALS</b> |                               |               |               |               |               |               |               |               |               |               |               |               |               |               |                |               |
| ETHYLENE DICHLORIDE                | 184235                        | 31418         | 210965        | 30979         | 191648        | 35963         | 284997        | 65400         | 263401        | 46737         | 359009        | 53578         | 439537        | 98004         | 465292         | 117028        |
| BUTANOL                            | 25237                         | 15080         | 24623         | 15158         | 37647         | 18804         | 25381         | 17294         | 31564         | 23498         | 36290         | 27372         | 44683         | 37454         | 56954          | 42657         |
| OXO ALCOHOL                        | 697                           | 794           | 669           | 967           | 1193          | 1438          | 528           | 1036          | 842           | 1842          | 1329          | 2102          | 1698          | 3182          | 1285           | 3866          |
| 2-ETHYL HEXANOL                    | 10629                         | 5680          | 21205         | 11748         | 38597         | 21344         | 34155         | 27996         | 29184         | 27396         | 58418         | 54709         | 100495        | 88209         | 134894         | 117375        |
| VINYL CHLORIDE<br>MONOMER          | 114988                        | 40148         | 120303        | 43350         | 154636        | 62300         | 385101        | 163983        | 302327        | 147439        | 296171        | 145623        | 303042        | 167918        | 317925         | 178829        |
| EPICHLHYDRINE                      | 11452                         | 9555          | 13693         | 10764         | 16927         | 10787         | 19786         | 19868         | 19068         | 19743         | 19109         | 18276         | 22986         | 22594         | 33588          | 33629         |
| ISO BUTYLENE                       | 39350                         | 25490         | 32713         | 29472         | 40105         | 22883         | 42939         | 32730         | 23351         | 20485         | 9260          | 7938          | 23254         | 21809         | 13010          | 12222         |
| METAXYLENE                         | 7273                          | 4707          | 5263          | 4448          | 468           | 304           | 1541          | 981           | 9564          | 5960          | 4371          | 3851          | 3029          | 3223          | 946            | 902           |
| METHYL ISOBUTYL<br>KETONE          | 14620                         | 8597          | 14919         | 10690         | 16698         | 10474         | 16399         | 12388         | 19209         | 17173         | 17668         | 20184         | 18318         | 21987         | 23243          | 26643         |
| PIB                                | 5490                          | 3771          | 5113          | 5323          | 5238          | 4294          | 6091          | 4825          | 7536          | 7281          | 10754         | 11817         | 9456          | 13554         | 11290          | 16394         |
| POLYCARBONATE                      | 47846                         | 54450         | 41638         | 52817         | 54315         | 62610         | 105264        | 140607        | 116029        | 162876        | 122742        | 175907        | 123434        | 183633        | 124555         | 189828        |
| PROPYLENE OXIDE                    | 3304                          | 2442          | 4432          | 3530          | 10006         | 7393          | 12561         | 10340         | 9392          | 9595          | 13141         | 13052         | 11676         | 13076         | 22914          | 25917         |
| PROPYLENE GLYCOL                   | 18716                         | 11352         | 26070         | 18275         | 29374         | 17958         | 35120         | 24035         | 35736         | 29641         | 40036         | 34340         | 43547         | 40750         | 48749          | 50720         |
| POLYVINYL ACETATE<br>RESIN         | 3089                          | 2889          | 2147          | 2639          | 3481          | 3969          | 3623          | 4983          | 4254          | 6302          | 4388          | 7094          | 4246          | 8824          | 4003           | 8300          |
| UNSATURATED<br>POLYSTER RESIN      | 23423                         | 19819         | 38920         | 28801         | 44833         | 30742         | 36633         | 36032         | 34237         | 39319         | 36013         | 43468         | 31157         | 40025         | 28855          | 33910         |

**Table - 25 : Imports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                    | [QTY in MT & VAL in Rs. Lakh] |               |                |               |                |               |                |                |                |                |                |                |                |                |                |                |
|----------------------------|-------------------------------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                            | 2007-2008                     |               | 2008-2009      |               | 2009-2010      |               | 2010-2011      |                | 2011-2012      |                | 2012-2013      |                | 2013-2014      |                | 2014-2015      |                |
|                            | QTY                           | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            |
| ETHYL BENZENE              | 20                            | 15            | 63             | 51            | 76             | 53            | 54             | 47             | 75             | 82             | 407            | 360            | 172            | 228            | 128            | 182            |
| CELLULOSE ACETATE BUTYRATE | 7                             | 17            | 17             | 52            | 4              | 16            | 110            | 203            | 228            | 450            | 8              | 151            | 0              | 1              | 1              | 5              |
| CELLULOSE ACETATE SHEET    | 409                           | 115           | 342            | 103           | 375            | 129           | 318            | 123            | 459            | 216            | 692            | 312            | 980            | 569            | 1260           | 749            |
| CELLULOSE NITRATE SHEET    | 93                            | 312           | 22             | 88            | 75             | 137           | 99             | 217            | 81             | 236            | 178            | 248            | 502            | 843            | 263            | 467            |
| MELAMINE MOULDING POWDER   | 2811                          | 2434          | 2803           | 2910          | 3896           | 3902          | 6019           | 5928           | 8006           | 8500           | 8668           | 9858           | 10210          | 12619          | 10081          | 12356          |
| POLYACETAL RESIN           | 12326                         | 7629          | 10909          | 8118          | 15437          | 11934         | 19191          | 14005          | 21082          | 17748          | 25933          | 23667          | 26266          | 25418          | 32605          | 29992          |
| PHTHALIC ANHYDRIDE         | 31203                         | 16312         | 37465          | 19365         | 28098          | 13684         | 61241          | 31601          | 38894          | 25948          | 44321          | 36815          | 54934          | 48521          | 52350          | 39837          |
| STYRENE                    | 413840                        | 230561        | 395725         | 207567        | 453007         | 236847        | 458595         | 252983         | 520758         | 348850         | 591646         | 492433         | 572654         | 602695         | 617800         | 543696         |
| VINYL ACTATE MONOMER       | 53895                         | 26570         | 50377          | 25881         | 76658          | 30906         | 85369          | 34884          | 124726         | 67921          | 127536         | 69804          | 147364         | 87273          | 139553         | 114477         |
| ISOPROPANOL                | 30563                         | 14705         | 25737          | 16132         | 34107          | 16488         | 40556          | 23598          | 33441          | 22148          | 55724          | 42087          | 51271          | 42756          | 63194          | 51016          |
| POLYOL                     | 53982                         | 49216         | 55283          | 56769         | 64051          | 63582         | 126162         | 120201         | 131056         | 161806         | 153222         | 200925         | 159073         | 232014         | 167916         | 246352         |
| <b>TOTAL</b>               | <b>1109498</b>                | <b>584078</b> | <b>1141416</b> | <b>605997</b> | <b>1320950</b> | <b>688941</b> | <b>1807833</b> | <b>1046288</b> | <b>1784500</b> | <b>1219192</b> | <b>2037034</b> | <b>1495971</b> | <b>2203984</b> | <b>1817179</b> | <b>2372654</b> | <b>1897349</b> |

**Table -26: Net Imports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

[QTY in MT & VAL in Rs. Lakh]

| PRODUCT                         | 2007-2008      |                | 2008-2009      |                | 2009-2010      |                | 2010-2011      |                | 2011-2012      |                | 2012-2013      |                | 2013-2014      |                | 2014-2015      |                |
|---------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                 | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            |
| <b>SYNTHETIC FIBRES</b>         |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| ACRYLIC FIBRE                   | 3861           | 3148           | 7576           | 6632           | 3989           | 4123           | -911           | -11269         | -6183          | -9860          | 10101          | 15894          | 1428           | 5666           | -1081          | 1783           |
| NYLON FILAMENT YARN             | 1171           | 953            | 3379           | 3776           | 4522           | 6153           | 16028          | 26299          | 20984          | 39815          | 22202          | 47055          | 22272          | 47248          | 25965          | 52509          |
| NYLON INDUSTRIAL YARN/TYRE CORD | 1923           | 3423           | 1193           | 2102           | 8581           | 11798          | 8293           | 12649          | 5335           | 9650           | 8156           | 14465          | 4126           | 8053           | 1998           | 4098           |
| POLYESTER FILAMENT YARN         | -133198        | -97082         | -111349        | -87577         | -177197        | -127707        | -357528        | -294224        | -480684        | -457765        | -526211        | -524116        | -601019        | -676115        | -576055        | -588637        |
| POLYESTER STAPLE FIBRE          | -129706        | -68709         | -119887        | -66668         | -146411        | -79900         | -120938        | -82215         | -131323        | -117640        | -140648        | -116702        | -162706        | -146075        | -101711        | -79995         |
| POLYPROPYLENE FILAMENT YARN     | 1421           | 1421           | 1140           | 1016           | 447            | 274            | 230            | 351            | 664            | 814            | -410           | -21            | -1071          | -1757          | -1516          | -2232          |
| POLYPROPYLENE STAPLE FIBRE      | -660           | -482           | -772           | -687           | -352           | -245           | -523           | -495           | -235           | -357           | -1969          | -2162          | -14491         | -15653         | -10282         | -11401         |
| <b>TOTAL</b>                    | <b>-255188</b> | <b>-157328</b> | <b>-218720</b> | <b>-141406</b> | <b>-306421</b> | <b>-185504</b> | <b>-455349</b> | <b>-348904</b> | <b>-591442</b> | <b>-535343</b> | <b>-628779</b> | <b>-565587</b> | <b>-751461</b> | <b>-778633</b> | <b>-662682</b> | <b>-623875</b> |
| <b>FIBRE INTERMEDIATES</b>      |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| ACRYLONITRILE                   | 81756          | 61388          | 78691          | 56131          | 64692          | 42101          | 72617          | 73590          | 71759          | 71666          | 79861          | 80972          | 100860         | 111627         | 97384          | 118871         |
| CAPROLACTUM                     | 22116          | 21466          | 9208           | 13759          | -1112          | -2959          | -7443          | -13500         | -8067          | -10931         | 12574          | 16820          | 22980          | 33405          | 32276          | 43570          |
| DIMETHYL TEREPHTHALATE          | 3761           | 1726           | 4088           | 2760           | 4170           | 1905           | 4423           | 2539           | 2812           | 2010           | 2104           | 1592           | 1785           | 1464           | 2094           | 1594           |
| MONO EHYLENE GLYCOL             | 210428         | 94632          | 389857         | 133848         | 676605         | 223745         | 735230         | 303640         | 568106         | 310698         | 583035         | 322078         | 753692         | 459126         | 930324         | 493148         |
| PURIFIED TEREPHTHALIC ACID      | 58690          | 20594          | 141385         | 62455          | 474366         | 205917         | 743486         | 374405         | 579711         | 348816         | 644377         | 395109         | 978068         | 645067         | 1044522        | 559135         |
| <b>TOTAL</b>                    | <b>376751</b>  | <b>199806</b>  | <b>623229</b>  | <b>268953</b>  | <b>1218721</b> | <b>470709</b>  | <b>1548313</b> | <b>740674</b>  | <b>1214321</b> | <b>722259</b>  | <b>1321951</b> | <b>816571</b>  | <b>1857385</b> | <b>1250689</b> | <b>2106600</b> | <b>1216318</b> |

**Table -26: Net Imports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                              | 2007-2008     |               | 2008-2009     |               | 2009-2010      |               | 2010-2011      |               | 2011-2012      |               | 2012-2013      |                | 2013-2014      |                | 2014-2015      |                |
|--------------------------------------|---------------|---------------|---------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                      | QTY           | VAL           | QTY           | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            |
| <b>POLYMERS</b>                      |               |               |               |               |                |               |                |               |                |               |                |                |                |                |                |                |
| LOW DENSITY POLYETHYLENE             | 71088         | 39569         | 81339         | 51253         | 155889         | 94719         | 184499         | 120547        | 184837         | 132819        | 247591         | 189456         | 237778         | 219149         | 304382         | 271864         |
| HIGH DENSITY POLYTHYLENE             | 120544        | 75431         | 173343        | 117688        | 446632         | 266647        | 380960         | 224747        | 183166         | 139001        | 479721         | 340264         | 461773         | 442014         | 791229         | 760138         |
| POLYESTYRENE                         | -62617        | -39566        | -45979        | -28126        | -37888         | -17495        | -33209         | -17113        | -31764         | -17886        | -38188         | -22746         | -46190         | -42387         | -34048         | -19070         |
| POLYPROPYLENE (INC. CO-POLYMER)      | -153273       | -74630        | 130082        | 60624         | -139137        | -45861        | -156999        | -61746        | -417905        | -253834       | -330545        | -189163        | -464108        | -359866        | -115233        | -30795         |
| EXPANDABLE POLYESTYRENE              | 6827          | 4793          | 3766          | 3045          | 2650           | 2140          | 7276           | 5130          | 5345           | 4460          | 730            | 747            | 332            | 269            | -1697          | -2048          |
| POLY VINYL CHLORIDE                  | 350978        | 141314        | 337231        | 151178        | 628304         | 270267        | 660459         | 324535        | 847704         | 440769        | 1131857        | 646395         | 1207197        | 752978         | 1291350        | 852382         |
| LINEAR LOW DENSITY POLYTHYLENE       | 144438        | 85905         | 196816        | 128398        | 375836         | 226172        | 570079         | 363633        | 441204         | 299873        | 517028         | 395498         | 486366         | 400190         | 539255         | 505664         |
| PVC COMPOUND                         | 42788         | 18143         | 40561         | 20117         | 70028          | 31786         | 64857          | 35070         | 59403          | 38341         | 58737          | 40867          | 54204          | 40410          | 58294          | 45383          |
| <b>TOTAL</b>                         | <b>520773</b> | <b>250959</b> | <b>917159</b> | <b>504177</b> | <b>1502314</b> | <b>828375</b> | <b>1677922</b> | <b>994803</b> | <b>1271990</b> | <b>783543</b> | <b>2066931</b> | <b>1401318</b> | <b>1937352</b> | <b>1452757</b> | <b>2833532</b> | <b>2383518</b> |
| <b>SYNTHETIC RUBBER (ELASTOMERS)</b> |               |               |               |               |                |               |                |               |                |               |                |                |                |                |                |                |
| STYRENE BUTADIENE RUBBER             | 104643        | 75416         | 90866         | 90925         | 137084         | 99360         | 182912         | 180622        | 205033         | 319950        | 199017         | 284010         | 232061         | 279755         | 205542         | 246438         |
| POLY BUTADIENE RUBBER                | 28188         | 21811         | 22033         | 27366         | 49474          | 38316         | 47126          | 60484         | 65750          | 111147        | 69879          | 113160         | 85933          | 109374         | 68552          | 77540          |
| ETHYL PROPYLENE DIMERS               | 15722         | 15515         | 13498         | 16798         | 19113          | 21557         | 25814          | 33973         | 26168          | 49868         | 27191          | 58090          | 28272          | 43031          | 30433          | 46539          |
| ETHYL VINYL ACETATE                  | 115201        | 69199         | 88423         | 75437         | 77145          | 66736         | 89701          | 86939         | 82812          | 91832         | 107520         | 108432         | 113549         | 123675         | 138273         | 154236         |
| NITRILE BUTADIENE RUBBER             | 11894         | 11190         | 6744          | 10476         | 11486          | 11723         | 15483          | 21536         | 8837           | 24608         | 26302          | 46199          | 29150          | 43494          | 26275          | 43636          |

**Table -26: Net Imports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

[QTY in MT & VAL in Rs. Lakh]

| PRODUCT                                  | 2007-2008      |               | 2008-2009      |               | 2009-2010      |               | 2010-2011      |               | 2011-2012      |               | 2012-2013     |               | 2013-2014      |               | 2014-2015     |               |
|------------------------------------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|---------------|---------------|---------------|----------------|---------------|---------------|---------------|
|                                          | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL           | QTY           | VAL           | QTY            | VAL           | QTY           | VAL           |
| BUTYL RUBBER                             | 51874          | 70207         | 52881          | 109278        | 66103          | 103032        | 70420          | 142356        | 81905          | 171982        | 78272         | 172526        | 78534          | 172111        | 83285         | 156068        |
| <b>TOTAL</b>                             | <b>327522</b>  | <b>263338</b> | <b>274445</b>  | <b>330280</b> | <b>360405</b>  | <b>340724</b> | <b>431456</b>  | <b>525910</b> | <b>470505</b>  | <b>769387</b> | <b>508181</b> | <b>782417</b> | <b>567499</b>  | <b>771440</b> | <b>552360</b> | <b>724457</b> |
| <b>SYNTHETIC DETERGENT INTERMEDIATES</b> |                |               |                |               |                |               |                |               |                |               |               |               |                |               |               |               |
| LINEAR ALKYL BENZENE                     | -80796         | -47106        | -14084         | -27723        | -2672          | -4553         | -54609         | -32840        | 32258          | 9832          | 77372         | 81352         | 91332          | 104561        | 106795        | 110714        |
| ETHYLENE OXIDE                           | -20            | -228          | -12            | 98            | -617           | -733          | -241           | -290          | -270           | -518          | -357          | -595          | -457           | -939          | -752          | -1257         |
| <b>TOTAL</b>                             | <b>-80816</b>  | <b>-47334</b> | <b>-14096</b>  | <b>-27625</b> | <b>-3289</b>   | <b>-5286</b>  | <b>-54850</b>  | <b>-33130</b> | <b>31988</b>   | <b>9314</b>   | <b>77015</b>  | <b>80757</b>  | <b>90875</b>   | <b>103622</b> | <b>106043</b> | <b>109457</b> |
| <b>PERFORMANCE PLASTICS</b>              |                |               |                |               |                |               |                |               |                |               |               |               |                |               |               |               |
| ABS RESIN                                | 12058          | 10562         | 19534          | 18450         | 30308          | 26704         | 40952          | 45945         | 44663          | 53014         | 56231         | 71603         | 62717          | 85689         | 69685         | 93851         |
| NYLON-6                                  | 27285          | 37608         | 32298          | 47151         | 41209          | 56102         | 56631          | 87872         | 68750          | 125779        | 78349         | 142678        | 99057          | 188067        | 117176        | 208805        |
| POLYMETHYL METHACRYLATE                  | 2106           | 3482          | 808            | 2718          | 1750           | 3493          | 12251          | 6945          | 6899           | 11277         | 8639          | 12861         | 9149           | 13820         | 6061          | 10482         |
| STYRENE ACRYLONITRILE                    | 6176           | 4305          | 6053           | 3371          | 2891           | 2079          | 4899           | 4486          | 4447           | 4428          | 6205          | 6993          | 5698           | 7274          | 6291          | 7726          |
| POLYESTER CHIPS/PET CHIPS                | -232420        | -126710       | -217018        | -121351       | -259136        | -139088       | -285781        | -182732       | -254916        | -202715       | -244564       | -196093       | -336821        | -281967       | -208406       | -151869       |
| POLYTETRAFLUOROETHYLENE (PTFE)           | 2030           | 7178          | 55             | 4848          | 740            | 4018          | -3305          | -9348         | -4263          | -24505        | -3067         | -9431         | -3429          | -14717        | -5406         | -26120        |
| <b>TOTAL</b>                             | <b>-182765</b> | <b>-63575</b> | <b>-158270</b> | <b>-44813</b> | <b>-182238</b> | <b>-46692</b> | <b>-174353</b> | <b>-46832</b> | <b>-134420</b> | <b>-32722</b> | <b>-98207</b> | <b>28611</b>  | <b>-163629</b> | <b>-1834</b>  | <b>-14599</b> | <b>142875</b> |
| <b>OLEFINS</b>                           |                |               |                |               |                |               |                |               |                |               |               |               |                |               |               |               |
| BUTADIENE                                | -128436        | -57802        | -116175        | -80484        | -110882        | -66151        | -131010        | -119437       | -116358        | -172136       | -108439       | -124668       | -118339        | -87481        | -69256        | -42478        |

**Table -26: Net Imports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                            | 2007-2008      |                | 2008-2009      |                | 2009-2010      |                | 2010-2011      |                | 2011-2012      |                | 2012-2013      |                | 2013-2014      |                | 2014-2015      |                |
|------------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                                    | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            |
| ETHYLENE                           | 1182           | 2367           | 19870          | 9160           | 34535          | 16470          | 114506         | 51518          | 14660          | 8217           | 23783          | 17215          | 24790          | 19454          | 43905          | 38466          |
| PROPYLENE                          | -6885          | -2467          | 66             | 269            | -23516         | -11304         | -24208         | -10169         | -8919          | -3901          | -4984          | -2199          | 247            | 1201           | 2127           | 2691           |
| <b>TOTAL</b>                       | <b>-134139</b> | <b>-57902</b>  | <b>-96239</b>  | <b>-71055</b>  | <b>-99863</b>  | <b>-60985</b>  | <b>-40712</b>  | <b>-78088</b>  | <b>-110617</b> | <b>-167820</b> | <b>-89640</b>  | <b>-109652</b> | <b>-93302</b>  | <b>-66826</b>  | <b>-23224</b>  | <b>-1321</b>   |
| <b>AROMATICS</b>                   |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| BENZENE                            | -303413        | -124990        | -357898        | -133183        | -276825        | -127056        | -519307        | -202800        | -458429        | -256321        | -602303        | -413629        | -630499        | -434667        | -576694        | -348865        |
| MIXED XYLENE                       | -194298        | -71180         | -110055        | -47769         | -56356         | -18977         | -72323         | -29631         | -148488        | -87875         | -141395        | -104275        | -181672        | -135055        | -8817          | -5768          |
| ORTHO-XYLENE                       | -23688         | -5685          | -17120         | -2464          | -137102        | -58680         | -302052        | -140145        | -151584        | -97200         | -165688        | -125893        | -184131        | -130512        | -191310        | -114794        |
| TOLUENE                            | 140935         | 53130          | 143693         | 56057          | 196913         | 77810          | 183323         | 75240          | 239926         | 135671         | 301733         | 211280         | 248961         | 181884         | 277883         | 177414         |
| PARAXYLENE                         | -380676        | -178921        | -256093        | -114275        | -169338        | -94894         | 37595          | 10349          | -166573        | -174608        | -15066         | 8959           | -43511         | 24171          | -365865        | -158725        |
| <b>TOTAL</b>                       | <b>-761140</b> | <b>-327646</b> | <b>-597473</b> | <b>-241634</b> | <b>-442708</b> | <b>-221797</b> | <b>-672764</b> | <b>-286987</b> | <b>-685148</b> | <b>-480333</b> | <b>-622719</b> | <b>-423558</b> | <b>-790852</b> | <b>-494179</b> | <b>-864803</b> | <b>-450738</b> |
| <b>OTHER PETRO-BASED CHEMICALS</b> |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |                |
| ETHYLENE<br>DICHLORIDE             | 183554         | 30311          | 210434         | 29870          | 191631         | 35958          | 284997         | 65400          | 263401         | 46734          | 355809         | 53024          | 439528         | 97999          | 465271         | 117014         |
| BUTANOL                            | 23537          | 13465          | 21983          | 12715          | 34289          | 16402          | 19927          | 12831          | 27973          | 19040          | 31528          | 21386          | 42497          | 33871          | 56195          | 41664          |
| OXO ALCOHOL                        | 187            | 324            | 221            | 304            | 797            | 513            | 189            | -379           | 459            | 1102           | 517            | 1119           | 510            | 2049           | 94             | 2959           |
| 2-ETHYL HEXANOL                    | 10626          | 5556           | 21197          | 11728          | 38487          | 20934          | 34135          | 27466          | 29106          | 26588          | 58371          | 53708          | 100174         | 87555          | 128503         | 110970         |
| VINYL CHLORIDE<br>MONOMER          | 114986         | 40133          | 120279         | 43336          | 154636         | 62300          | 385075         | 163944         | 302327         | 147439         | 296171         | 145623         | 303041         | 167910         | 317925         | 178829         |

**Table -26: Net Imports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                    | 2007-2008 |       | 2008-2009 |       | 2009-2010 |       | 2010-2011 |        | 2011-2012 |        | 2012-2013 |        | 2013-2014 |        | 2014-2015 |        |
|----------------------------|-----------|-------|-----------|-------|-----------|-------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|-----------|--------|
|                            | QTY       | VAL   | QTY       | VAL   | QTY       | VAL   | QTY       | VAL    | QTY       | VAL    | QTY       | VAL    | QTY       | VAL    | QTY       | VAL    |
| EPICHLHYDRINE              | 11449     | 9552  | 13685     | 10756 | 16917     | 10778 | 19778     | 19855  | 19049     | 19719  | 19096     | 18266  | 22982     | 22587  | 33574     | 33610  |
| ISO BUTYLENE               | 39307     | 25452 | 32682     | 29466 | 40005     | 22835 | 42938     | 32729  | 23351     | 20484  | 9260      | 7938   | 21439     | 20427  | 13009     | 12220  |
| METAXYLENE                 | 7233      | 4690  | -5599     | 2193  | 431       | 282   | -107865   | -70102 | -82780    | -55429 | -36690    | -28898 | 3025      | 3210   | 923       | 756    |
| METHYL ISOBUTYL KETONE     | 14144     | 8337  | 14837     | 10618 | 16695     | 10463 | 16292     | 12297  | 18670     | 16654  | 17663     | 20113  | 18294     | 21934  | 23037     | 26279  |
| PIB                        | 1228      | 1382  | -102      | 1821  | 69        | 1126  | -76       | 805    | 913       | 1752   | 6469      | 7078   | 3560      | 6000   | 6297      | 10469  |
| POLYCARBONATE              | 45849     | 51617 | 40675     | 50957 | 52882     | 59054 | 101896    | 133957 | 113674    | 159205 | 120233    | 171575 | 120412    | 177530 | 122096    | 187056 |
| PROPYLENE OXIDE            | 3024      | 2063  | 4366      | 3468  | 10006     | 7393  | 12561     | 10336  | 9392      | 9595   | 13141     | 13052  | 11676     | 13076  | 22914     | 25917  |
| PROPYLENE GLYCOL           | 17987     | 10871 | 25176     | 17538 | 28223     | 17200 | 33942     | 23064  | 34828     | 28762  | 37443     | 32387  | 42729     | 39764  | 47976     | 49677  |
| POLYVINYL ACETATE RESIN    | -751      | 1104  | -2295     | 111   | -102      | 2046  | -3254     | 568    | -5823     | -1886  | -9676     | -4469  | -11263    | -4819  | -11453    | -7084  |
| UNSATURATED POLYSTER RESIN | 11221     | 11154 | 24723     | 17434 | 34914     | 24089 | 27502     | 28183  | 24782     | 29840  | 25304     | 30991  | 20407     | 25492  | 16195     | 16836  |
| ETHYL BENZENE              | -277      | -354  | -488      | -674  | 60        | 29    | 54        | 47     | 72        | 81     | 403       | 356    | 172       | 228    | 128       | 182    |
| CELLULOSE ACETATE BUTYRATE | -2166     | -1099 | 0         | 24    | -1        | -23   | 85        | 172    | 218       | 435    | -45       | 73     | -93       | -162   | -43       | -88    |
| CELLULOSE ACETATE SHEET    | 335       | 58    | 205       | -92   | 357       | 87    | 171       | -41    | 442       | 180    | 533       | 146    | 917       | 417    | 1227      | 665    |
| CELLULOSE NITRATE SHEET    | 48        | 284   | -26       | 7     | 69        | 131   | -13       | 121    | 73        | 222    | 132       | 229    | 499       | 829    | 251       | 451    |
| MELAMINE MOULDING POWDER   | 1977      | 1863  | 2038      | 2283  | 3519      | 3598  | 4940      | 5185   | 6955      | 7586   | 7508      | 8918   | 8042      | 11188  | 3742      | 10072  |
| POLYACETAL RESIN           | 12164     | 7502  | 10598     | 7742  | 14910     | 11417 | 17939     | 13072  | 20372     | 17045  | 25654     | 23264  | 25726     | 24764  | 32068     | 29394  |

**Table -26: Net Imports of Major Petrochemicals (Product-wise) 2007-08 to 2014-15**

| PRODUCT                 | 2007-2008     |               | 2008-2009     |               | 2009-2010      |               | 2010-2011      |               | 2011-2012      |                | 2012-2013      |                | 2013-2014      |                | 2014-2015      |                |
|-------------------------|---------------|---------------|---------------|---------------|----------------|---------------|----------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
|                         | QTY           | VAL           | QTY           | VAL           | QTY            | VAL           | QTY            | VAL           | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            | QTY            | VAL            |
| PHTHALIC ANHYDRIDE      | -40069        | -21168        | -4279         | -1297         | 8517           | 4171          | 42761          | 21589         | 13901          | 8912           | 31509          | 25337          | 31752          | 28262          | 13716          | 13093          |
| STYRENE                 | 411221        | 229056        | 391431        | 204653        | 452206         | 236327        | 456785         | 251776        | 513237         | 344003         | 574319         | 476110         | 570412         | 600303         | 610860         | 537073         |
| VINYL ACTATE<br>MONOMER | 50802         | 24757         | -281853       | 25251         | 74245          | 29929         | 84307          | 34384         | 122499         | 66681          | 126194         | 68982          | 143268         | 84638          | 137991         | 113085         |
| ISOPROPANOL             | 21780         | 10477         | 18513         | 11750         | 29656          | 12755         | 33226          | 17499         | 23843          | 9395           | 51878          | 37938          | 47937          | 38703          | 57055          | 44508          |
| POLYOL                  | 48963         | 43506         | 47871         | 45666         | 52759          | 52054         | 115146         | 107848        | 119224         | 149549         | 137228         | 182410         | 140104         | 205813         | 148978         | 198098         |
| <b>TOTAL</b>            | <b>988359</b> | <b>510893</b> | <b>706272</b> | <b>537628</b> | <b>1256177</b> | <b>641848</b> | <b>1623438</b> | <b>912606</b> | <b>1600158</b> | <b>1073688</b> | <b>1899952</b> | <b>1366656</b> | <b>2107747</b> | <b>1709568</b> | <b>2248529</b> | <b>1753705</b> |

Table-27 Top Five Export Destinations of Selected Petrochemicals during 2014-15

| PRODUCT         | COUNTRY       | QUANTITY(MT) | VALUE(RS.Lakh) |
|-----------------|---------------|--------------|----------------|
| 2-ETHYL HEXANOL | IRAN          | 5059         | 5102           |
|                 | U ARAB EMTS   | 1077         | 966            |
|                 | U S A         | 239          | 225            |
|                 | BANGLADESH PR | 10           | 9              |
|                 | SAUDI ARAB    | 5            | 91             |
|                 | Product Total | 6390         | 6393           |
| ABS RESIN       | SRI LANKA DSR | 60           | 67             |
|                 | CHINA P RP    | 42           | 67             |
|                 | POLAND        | 19           | 31             |
|                 | RUSSIA        | 19           | 20             |
|                 | TAIWAN        | 19           | 4              |
|                 | Product Total | 160          | 190            |
| ACRYLIC FIBRE   | IRAN          | 16246        | 25891          |
|                 | KENYA         | 5010         | 4545           |
|                 | ETHIOPIA      | 3965         | 4214           |
|                 | CHINA P RP    | 2813         | 4141           |
|                 | BANGLADESH PR | 1297         | 2665           |
|                 | Product Total | 29331        | 41457          |
| ACRYLONITRILE   | U S A         | 4            | 83             |
|                 | GERMANY       | 0            | 2              |
|                 | SOUTH AFRICA  | 0            | 0              |
|                 | NEPAL         | 0            | 0              |
|                 | Product Total | 4            | 85             |
| BENZENE         | U S A         | 149749       | 91691          |
|                 | SAUDI ARAB    | 148794       | 93687          |
|                 | SPAIN         | 99614        | 63320          |
|                 | BELGIUM       | 61700        | 41546          |
|                 | SINGAPORE     | 45411        | 22169          |
|                 | Product Total | 505268       | 312413         |
| BUTADIENE       | KOREA RP      | 24886        | 15497          |
|                 | CHINA P RP    | 20746        | 10979          |
|                 | U S A         | 12771        | 9167           |
|                 | MALAYSIA      | 9450         | 6359           |
|                 | MEXICO        | 2626         | 1706           |
|                 | Product Total | 70479        | 43709          |
| BUTANOL         | SINGAPORE     | 325          | 321            |
|                 | U S A         | 66           | 109            |

Table-27 Top Five Export Destinations of Selected Petrochemicals during 2014-15

| PRODUCT                          | COUNTRY       | QUANTITY(MT) | VALUE(RS.Lakh) |
|----------------------------------|---------------|--------------|----------------|
|                                  | IRAN          | 64           | 60             |
|                                  | U ARAB EMTS   | 60           | 44             |
|                                  | NEPAL         | 43           | 39             |
|                                  | Product Total | 558          | 573            |
| BUTYL RUBBER                     | BANGLADESH PR | 984          | 2330           |
|                                  | IRAN          | 264          | 450            |
|                                  | SRI LANKA DSR | 201          | 484            |
|                                  | SINGAPORE     | 92           | 207            |
|                                  | THAILAND      | 40           | 57             |
|                                  | Product Total | 1581         | 3527           |
| CELLULOSE<br>ACETATE<br>BUTYRATE | IRAN          | 40           | 47             |
|                                  | SUDAN         | 2            | 5              |
|                                  | GERMANY       | 2            | 38             |
|                                  | KENYA         | 0            | 1              |
|                                  | BULGARIA      | 0            | 1              |
|                                  | Product Total | 44           | 92             |
| CELLULOSE<br>ACETATE SHEET       | THAILAND      | 19           | 54             |
|                                  | U ARAB EMTS   | 10           | 12             |
|                                  | NIGERIA       | 2            | 9              |
|                                  | U S A         | 1            | 6              |
|                                  | NEPAL         | 0            | 1              |
|                                  | Product Total | 44           | 92             |
| CELLULOSE<br>NITRATE SHEET       | NEPAL         | 12           | 16             |
|                                  | Product Total | 12           | 16             |
| EPICHLHYDRINE                    | IRAN          | 9            | 13             |
|                                  | BANGLADESH PR | 5            | 7              |
|                                  | Product Total | 14           | 19             |
| ETHYL BENZENE                    | IRAN          | 0            | 0              |
|                                  | Product Total | 0            | 0              |
| ETHYL PROPYLENE<br>DIMERS        | TURKEY        | 2230         | 6847           |
|                                  | U ARAB EMTS   | 254          | 400            |
|                                  | IRAN          | 102          | 222            |
|                                  | U K           | 71           | 117            |
|                                  | KENYA         | 50           | 69             |
|                                  | Product Total | 2707         | 7655           |
| ETHYL VINYL<br>ACETATE           | IRAN          | 617          | 823            |
|                                  | SAUDI ARAB    | 99           | 109            |

Table-27 Top Five Export Destinations of Selected Petrochemicals during 2014-15

| PRODUCT                  | COUNTRY         | QUANTITY(MT) | VALUE(RS.Lakh) |
|--------------------------|-----------------|--------------|----------------|
|                          | HONG KONG       | 85           | 180            |
|                          | U ARAB EMTS     | 83           | 145            |
|                          | BANGLADESH PR   | 70           | 60             |
|                          | Product Total   | 954          | 1317           |
| ETHYLENE                 | MOZAMBIQUE      | 0            | 0              |
|                          | NIGERIA         | 0            | 1              |
|                          | NEPAL           | 0            | 0              |
|                          | GEORGIA         | 0            | 0              |
|                          | Product Total   | 0            | 1              |
| ETHYLENE DICHLORIDE      | THAILAND        | 21           | 11             |
|                          | SAUDI ARAB      | 0            | 2              |
|                          | BANGLADESH PR   | 0            | 0              |
|                          | NEPAL           | 0            | 0              |
|                          | KENYA           | 0            | 0              |
|                          | Product Total   | 21           | 14             |
| ETHYLENE OXIDE           | MALAYSIA        | 307          | 419            |
|                          | SPAIN           | 297          | 941            |
|                          | JAPAN           | 71           | 68             |
|                          | THAILAND        | 38           | 146            |
|                          | VIETNAM SOC REP | 19           | 80             |
|                          | Product Total   | 732          | 1655           |
| EXPANDABLE POLYSTYRENE   | INDONESIA       | 1087         | 1280           |
|                          | U ARAB EMTS     | 603          | 726            |
|                          | TAIWAN          | 418          | 474            |
|                          | HONG KONG       | 350          | 410            |
|                          | KUWAIT          | 324          | 327            |
|                          | Product Total   | 2782         | 3216           |
| HIGH DENSITY POLYTHYLENE | PAKISTAN IR     | 16147        | 14935          |
|                          | NEPAL           | 10770        | 9811           |
|                          | CHINA P RP      | 5627         | 4965           |
|                          | U ARAB EMTS     | 2803         | 1872           |
|                          | SAUDI ARAB      | 2253         | 2528           |
|                          | Product Total   | 37600        | 34111          |
| ISO BUTYLENE             | BANGLADESH PR   | 0            | 2              |
|                          | SAUDI ARAB      | 0            | 0              |
|                          | CHINA P RP      | 0            | 0              |
|                          | Product Total   | 1            | 2              |

Table-27 Top Five Export Destinations of Selected Petrochemicals during 2014-15

| PRODUCT                        | COUNTRY       | QUANTITY(MT) | VALUE(RS.Lakh) |
|--------------------------------|---------------|--------------|----------------|
| ISOPROPANOL                    | U ARAB EMTS   | 1507         | 1295           |
|                                | BELGIUM       | 929          | 1708           |
|                                | IRAN          | 848          | 830            |
|                                | EGYPT A RP    | 579          | 564            |
|                                | NIGERIA       | 512          | 400            |
|                                | Product Total | 4375         | 4797           |
| LINEAR ALKYL BENZENE           | PAKISTAN IR   | 14980        | 14985          |
|                                | BANGLADESH PR | 3380         | 3076           |
|                                | U ARAB EMTS   | 2991         | 3146           |
|                                | OMAN          | 1709         | 1708           |
|                                | TANZANIA REP  | 1250         | 1290           |
|                                | Product Total | 24310        | 24205          |
| LINEAR LOW DENSITY POLYTHYLENE | NEPAL         | 4837         | 4357           |
|                                | PAKISTAN IR   | 1401         | 1317           |
|                                | U ARAB EMTS   | 718          | 454            |
|                                | KENYA         | 694          | 642            |
|                                | TURKEY        | 496          | 532            |
|                                | Product Total | 8146         | 7302           |
| LOW DENSITY POLYETHYLENE       | TURKEY        | 4104         | 4737           |
|                                | IRAN          | 2582         | 3321           |
|                                | NEPAL         | 2539         | 1494           |
|                                | U ARAB EMTS   | 1155         | 959            |
|                                | SAUDI ARAB    | 1086         | 1286           |
|                                | Product Total | 11466        | 11797          |
| MELAMINE MOULDING POWDER       | NEPAL         | 5284         | 980            |
|                                | CHINA P RP    | 224          | 318            |
|                                | PAKISTAN IR   | 194          | 154            |
|                                | INDONESIA     | 146          | 196            |
|                                | TURKEY        | 118          | 172            |
|                                | Product Total | 5966         | 1821           |
| METAXYLENE                     | NEPAL         | 15           | 12             |
|                                | BELGIUM       | 4            | 14             |
|                                | PAKISTAN IR   | 2            | 7              |
|                                | DENMARK       | 1            | 111            |
|                                | NIGERIA       | 0            | 2              |
|                                | Product Total | 23           | 146            |
|                                | CHINA P RP    | 80           | 213            |

Table-27 Top Five Export Destinations of Selected Petrochemicals during 2014-15

| PRODUCT                         | COUNTRY       | QUANTITY(MT) | VALUE(RS.Lakh) |
|---------------------------------|---------------|--------------|----------------|
| METHYL ISOBUTYL KETONE          | U ARAB EMTS   | 79           | 71             |
|                                 | NEPAL         | 27           | 22             |
|                                 | SPAIN         | 20           | 56             |
|                                 | BANGLADESH PR | 0            | 1              |
|                                 | Product Total | 206          | 364            |
| MIXED XYLENE                    | U ARAB EMTS   | 10448        | 6902           |
|                                 | NEPAL         | 6            | 4              |
|                                 | BANGLADESH PR | 3            | 2              |
|                                 | OMAN          | 2            | 3              |
|                                 | SRI LANKA DSR | 1            | 8              |
|                                 | Product Total | 10461        | 6920           |
| MONO EHYLENE GLYCOL             | U S A         | 26390        | 21744          |
|                                 | MEXICO        | 8470         | 7012           |
|                                 | CHINA P RP    | 7204         | 3531           |
|                                 | NETHERLAND    | 7128         | 5692           |
|                                 | INDONESIA     | 6266         | 5021           |
|                                 | Product Total | 55458        | 43000          |
| NITRILE BUTADIENE RUBBER        | U S A         | 160          | 348            |
|                                 | THAILAND      | 93           | 279            |
|                                 | ITALY         | 38           | 89             |
|                                 | GERMANY       | 22           | 46             |
|                                 | U ARAB EMTS   | 21           | 35             |
|                                 | Product Total | 333          | 797            |
| NYLON FILAMENT YARN             | SPAIN         | 286          | 860            |
|                                 | SRI LANKA DSR | 250          | 928            |
|                                 | U S A         | 242          | 1100           |
|                                 | BRAZIL        | 169          | 636            |
|                                 | MOROCCO       | 99           | 358            |
|                                 | Product Total | 1045         | 3883           |
| NYLON INDUSTRIAL YARN/TYRE CORD | THAILAND      | 957          | 1791           |
|                                 | NEPAL         | 155          | 178            |
|                                 | BANGLADESH PR | 154          | 214            |
|                                 | GERMANY       | 152          | 190            |
|                                 | U S A         | 122          | 184            |
|                                 | Product Total | 1540         | 2558           |
| NYLON-6                         | JAPAN         | 2453         | 3772           |
|                                 | HONG KONG     | 2293         | 3793           |

Table-27 Top Five Export Destinations of Selected Petrochemicals during 2014-15

| PRODUCT               | COUNTRY         | QUANTITY(MT) | VALUE(RS.Lakh) |
|-----------------------|-----------------|--------------|----------------|
|                       | KOREA RP        | 1265         | 1733           |
|                       | U S A           | 1185         | 1951           |
|                       | CHINA P RP      | 1067         | 1955           |
|                       | Product Total   | 8264         | 13205          |
| ORTHO-XYLENE          | CHINA P RP      | 178450       | 108262         |
|                       | INDONESIA       | 29400        | 17795          |
|                       | PAKISTAN IR     | 16800        | 11176          |
|                       | TAIWAN          | 2100         | 880            |
|                       | MALAYSIA        | 242          | 204            |
|                       | Product Total   | 226992       | 138318         |
| OXO ALCOHOL           | CHINA P RP      | 772          | 310            |
|                       | NETHERLAND      | 205          | 208            |
|                       | U S A           | 150          | 150            |
|                       | ITALY           | 34           | 165            |
|                       | U K             | 15           | 16             |
|                       | Product Total   | 1176         | 850            |
| PARAXYLENE            | INDONESIA       | 359431       | 228762         |
|                       | MALAYSIA        | 329912       | 217202         |
|                       | CHINA P RP      | 238982       | 131865         |
|                       | PAKISTAN IR     | 71950        | 49392          |
|                       | THAILAND        | 58018        | 32559          |
|                       | Product Total   | 1058293      | 659780         |
| PHTHALIC ANHYDRIDE    | SAUDI ARAB      | 19134        | 13411          |
|                       | U ARAB EMTS     | 10656        | 7267           |
|                       | EGYPT A RP      | 3500         | 2307           |
|                       | KENYA           | 1008         | 705            |
|                       | KOREA RP        | 847          | 578            |
|                       | Product Total   | 35145        | 24268          |
| PIB                   | INDONESIA       | 1695         | 1914           |
|                       | SINGAPORE       | 1365         | 1268           |
|                       | U ARAB EMTS     | 478          | 696            |
|                       | CHINA P RP      | 439          | 527            |
|                       | BELGIUM         | 181          | 234            |
|                       | Product Total   | 4158         | 4639           |
| POLY BUTADIENE RUBBER | PAKISTAN IR     | 303          | 314            |
|                       | VIETNAM SOC REP | 273          | 192            |
|                       | U ARAB EMTS     | 255          | 413            |

Table-27 Top Five Export Destinations of Selected Petrochemicals during 2014-15

| PRODUCT                   | COUNTRY       | QUANTITY(MT) | VALUE(RS.Lakh) |
|---------------------------|---------------|--------------|----------------|
|                           | SRI LANKA DSR | 174          | 180            |
|                           | U S A         | 121          | 86             |
|                           | Product Total | 1126         | 1186           |
| POLY VINYL CHLORIDE       | U ARAB EMTS   | 1010         | 650            |
|                           | NEPAL         | 439          | 316            |
|                           | U S A         | 151          | 447            |
|                           | TURKEY        | 99           | 350            |
|                           | SRI LANKA DSR | 85           | 58             |
|                           | Product Total | 1783         | 1822           |
| POLYACETAL RESIN          | GERMANY       | 234          | 224            |
|                           | CHINA P RP    | 97           | 95             |
|                           | BANGLADESH PR | 90           | 120            |
|                           | NETHERLAND    | 54           | 48             |
|                           | U S A         | 43           | 79             |
|                           | Product Total | 518          | 565            |
| POLYCARBONATE             | ITALY         | 1263         | 1187           |
|                           | NETHERLAND    | 433          | 505            |
|                           | HONG KONG     | 166          | 143            |
|                           | GERMANY       | 158          | 138            |
|                           | SRI LANKA DSR | 106          | 201            |
|                           | Product Total | 2126         | 2174           |
| POLYESTER CHIPS/PET CHIPS | BANGLADESH PR | 45131        | 31671          |
|                           | U S A         | 39515        | 27782          |
|                           | U ARAB EMTS   | 34533        | 26030          |
|                           | EGYPT A RP    | 19672        | 14262          |
|                           | BAHARAIN IS   | 18266        | 14232          |
|                           | Product Total | 157116       | 113977         |
| POLYESTER FILAMENT YARN   | TURKEY        | 179540       | 182043         |
|                           | BRAZIL        | 126760       | 121329         |
|                           | EGYPT A RP    | 45570        | 39408          |
|                           | KOREA RP      | 34329        | 34893          |
|                           | BANGLADESH PR | 24209        | 29097          |
|                           | Product Total | 410409       | 406770         |
| POLYESTER STAPLE FIBRE    | U S A         | 31432        | 27280          |
|                           | NEPAL         | 23024        | 17964          |
|                           | BELGIUM       | 17675        | 13864          |
|                           | GERMANY       | 9983         | 8733           |

Table-27 Top Five Export Destinations of Selected Petrochemicals during 2014-15

| PRODUCT                         | COUNTRY         | QUANTITY(MT) | VALUE(RS.Lakh) |
|---------------------------------|-----------------|--------------|----------------|
|                                 | BANGLADESH PR   | 8809         | 6887           |
|                                 | Product Total   | 90923        | 74729          |
| POLYESTYRENE                    | EGYPT A RP      | 11901        | 11033          |
|                                 | ITALY           | 6713         | 6782           |
|                                 | TURKEY          | 5250         | 4723           |
|                                 | U S A           | 5207         | 5414           |
|                                 | BANGLADESH PR   | 3989         | 3384           |
|                                 | Product Total   | 33059        | 31335          |
| POLYMETHYL METHACRYLATE         | NIGERIA         | 2026         | 1524           |
|                                 | KUWAIT          | 816          | 605            |
|                                 | NEPAL           | 771          | 690            |
|                                 | PHILIPPINES     | 588          | 511            |
|                                 | TANZANIA REP    | 555          | 457            |
|                                 | Product Total   | 4757         | 3786           |
| POLYOL                          | SINGAPORE       | 2831         | 4491           |
|                                 | EGYPT A RP      | 2119         | 863            |
|                                 | U ARAB EMTS     | 1366         | 1581           |
|                                 | CHINA P RP      | 1190         | 1687           |
|                                 | INDONESIA       | 1164         | 1504           |
|                                 | Product Total   | 8670         | 10125          |
| POLYPROPYLENE (INC. CO-POLYMER) | CHINA P RP      | 187829       | 155979         |
|                                 | TURKEY          | 108763       | 97700          |
|                                 | PAKISTAN IR     | 67192        | 59409          |
|                                 | VIETNAM SOC REP | 47316        | 41404          |
|                                 | INDONESIA       | 45531        | 38431          |
|                                 | Product Total   | 456631       | 392922         |
| POLYPROPYLENE FILAMENT YARN     | BANGLADESH PR   | 311          | 431            |
|                                 | U S A           | 180          | 251            |
|                                 | SPAIN           | 154          | 214            |
|                                 | MEXICO          | 152          | 207            |
|                                 | U ARAB EMTS     | 144          | 216            |
|                                 | Product Total   | 941          | 1320           |
| POLYPROPYLENE STAPLE FIBRE      | U S A           | 8884         | 9637           |
|                                 | NEPAL           | 1077         | 1397           |
|                                 | AUSTRALIA       | 446          | 533            |
|                                 | U ARAB EMTS     | 188          | 269            |
|                                 | JORDAN          | 15           | 24             |

Table-27 Top Five Export Destinations of Selected Petrochemicals during 2014-15

| PRODUCT                       | COUNTRY         | QUANTITY(MT) | VALUE(RS.Lakh) |
|-------------------------------|-----------------|--------------|----------------|
|                               | Product Total   | 10610        | 11860          |
| POLYTETRAFLUOROETHYLENE(PTFE) | GERMANY         | 2298         | 11991          |
|                               | U S A           | 1978         | 9727           |
|                               | ITALY           | 1662         | 7164           |
|                               | CHINA P RP      | 293          | 1658           |
|                               | BRAZIL          | 229          | 1584           |
|                               | Product Total   | 6460         | 32125          |
| POLYVINYL ACETATE RESIN       | U S A           | 4164         | 5813           |
|                               | NIGERIA         | 1702         | 1061           |
|                               | EGYPT A RP      | 1020         | 660            |
|                               | BANGLADESH PR   | 820          | 692            |
|                               | U ARAB EMTS     | 749          | 550            |
|                               | Product Total   | 8455         | 8776           |
| PROPYLENE                     | GERMANY         | 0            | 0              |
|                               | Product Total   | 0            | 0              |
| POLYVINYL ACETATE RESIN       | IRAN            | 240          | 272            |
|                               | TANZANIA REP    | 192          | 211            |
|                               | BANGLADESH PR   | 57           | 118            |
|                               | SRI LANKA DSR   | 54           | 68             |
|                               | VIETNAM SOC REP | 34           | 49             |
|                               | Product Total   | 34           | 49             |
| PROPYLENE OXIDE               | BAHARAIN IS     | 0            | 0              |
|                               | SINGAPORE       | 0            | 0              |
|                               | NETHERLAND      | 0            | 0              |
|                               | Product Total   | 0            | 0              |
| POLYVINYL ACETATE RESIN       | KOREA RP        | 42           | 35             |
|                               | U ARAB EMTS     | 6            | 7              |
|                               | UGANDA          | 2            | 1              |
|                               | EGYPT A RP      | 0            | 0              |
|                               | SAUDI ARAB      | 0            | 1              |
|                               | Product Total   | 0            | 1              |
| PVC COMPOUND                  | ETHIOPIA        | 1576         | 1504           |
|                               | TANZANIA REP    | 1453         | 1147           |
|                               | NEPAL           | 1389         | 1019           |
|                               | U ARAB EMTS     | 1336         | 1088           |
|                               | SRI LANKA DSR   | 1009         | 1082           |
|                               | Product Total   | 1009         | 1082           |

Table-27 Top Five Export Destinations of Selected Petrochemicals during 2014-15

| PRODUCT                        | COUNTRY       | QUANTITY(MT) | VALUE(RS.Lakh) |
|--------------------------------|---------------|--------------|----------------|
| STYRENE                        | CHINA P RP    | 6015         | 5760           |
|                                | U ARAB EMTS   | 741          | 693            |
|                                | SRI LANKA DSR | 158          | 152            |
|                                | PAKISTAN IR   | 20           | 13             |
|                                | BANGLADESH PR | 6            | 4              |
|                                | Product Total | 6            | 4              |
| STYRENE<br>ACRYLONITRILE       | PAKISTAN IR   | 44           | 44             |
|                                | U S A         | 22           | 46             |
|                                | MALAWI        | 18           | 24             |
|                                | MOZAMBIQUE    | 18           | 23             |
|                                | KENYA         | 13           | 13             |
|                                | Product Total | 13           | 13             |
| STYRENE<br>BUTADIENE<br>RUBBER | PAKISTAN IR   | 4352         | 4501           |
|                                | SAUDI ARAB    | 2457         | 1999           |
|                                | U ARAB EMTS   | 2192         | 2165           |
|                                | IRAN          | 1194         | 1616           |
|                                | TAIWAN        | 1164         | 976            |
|                                | Product Total | 1164         | 976            |
| TOLUENE                        | U ARAB EMTS   | 5912         | 3306           |
|                                | KENYA         | 1030         | 784            |
|                                | SAUDI ARAB    | 832          | 404            |
|                                | PAKISTAN IR   | 490          | 349            |
|                                | SRI LANKA DSR | 381          | 274            |
|                                | Product Total | 381          | 274            |
| UNSATURATED<br>POLYSTER RESIN  | SPAIN         | 1832         | 2016           |
|                                | NIGERIA       | 1294         | 1265           |
|                                | NEPAL         | 832          | 969            |
|                                | SAUDI ARAB    | 824          | 988            |
|                                | AUSTRALIA     | 715          | 912            |
|                                | Product Total | 715          | 912            |
| VINYL ACTATE<br>MONOMER        | BANGLADESH PR | 476          | 426            |
|                                | IRAN          | 240          | 223            |
|                                | EGYPT A RP    | 220          | 179            |
|                                | ETHIOPIA      | 212          | 204            |
|                                | U ARAB EMTS   | 120          | 100            |
|                                | Product Total | 120          | 100            |

**Table : 28 Top Five Sources (countries) of Import of selected Petrochemicals during 2014-15**

| PRODUCT         | COUNTRY              | QUANTITY(MT)  | VALUE(RS.Lakh) |
|-----------------|----------------------|---------------|----------------|
| 2-ETHYL HEXANOL | INDONESIA            | 29500         | 26956          |
|                 | MALAYSIA             | 29121         | 25640          |
|                 | GERMANY              | 25732         | 21828          |
|                 | SINGAPORE            | 17234         | 15247          |
|                 | SAUDI ARAB           | 15541         | 12832          |
|                 | <b>Product Total</b> | <b>117128</b> | <b>102502</b>  |
| ABS RESIN       | KOREA RP             | 53187         | 70863          |
|                 | THAILAND             | 6419          | 8159           |
|                 | MALAYSIA             | 5691          | 7644           |
|                 | TAIWAN               | 1595          | 1950           |
|                 | SINGAPORE            | 602           | 1292           |
|                 | <b>Product Total</b> | <b>67494</b>  | <b>89908</b>   |
| ACRYLIC FIBRE   | THAILAND             | 12683         | 19463          |
|                 | GERMANY              | 9877          | 15772          |
|                 | NEPAL                | 4099          | 7118           |
|                 | JAPAN                | 3374          | 7746           |
|                 | BELARUS              | 2613          | 4475           |
|                 | <b>Product Total</b> | <b>32646</b>  | <b>54574</b>   |
| ACRYLONITRILE   | BRAZIL               | 29734         | 34738          |
|                 | KOREA RP             | 26688         | 32320          |
|                 | U S A                | 13424         | 15905          |
|                 | NETHERLAND           | 11425         | 13842          |
|                 | RUSSIA               | 9598          | 12339          |
|                 | <b>Product Total</b> | <b>90870</b>  | <b>109144</b>  |
| BENZENE         | KOREA RP             | 47            | 32             |
|                 | DENMARK              | 0             | 0              |
|                 | GERMANY              | 0             | 1              |
|                 | U S A                | 0             | 2              |
|                 | NETHERLAND           | 0             | 0              |
|                 | <b>Product Total</b> | <b>47</b>     | <b>35</b>      |
| BUTADIENE       | SAUDI ARAB           | 3149          | 2366           |
|                 | GERMANY              | 58            | 423            |
|                 | CHINA P RP           | 16            | 35             |
|                 | <b>Product Total</b> | <b>3223</b>   | <b>2823</b>    |
| BUTANOL         | MALAYSIA             | 30872         | 22629          |
|                 | SINGAPORE            | 13372         | 10052          |
|                 | SOUTH AFRICA         | 6689          | 4766           |

**Table : 28 Top Five Sources (countries) of Import of selected Petrochemicals during 2014-15**

| PRODUCT                    | COUNTRY              | QUANTITY(MT) | VALUE(RS.Lakh) |
|----------------------------|----------------------|--------------|----------------|
|                            | NETHERLAND           | 2121         | 1466           |
|                            | GERMANY              | 1823         | 1784           |
|                            | <b>Product Total</b> | <b>54877</b> | <b>40697</b>   |
| BUTYL RUBBER               | RUSSIA               | 42545        | 72108          |
|                            | U S A                | 13411        | 33279          |
|                            | BELGIUM              | 6179         | 11962          |
|                            | CHINA P RP           | 5780         | 8031           |
|                            | U K                  | 5374         | 13512          |
|                            | <b>Product Total</b> | <b>73290</b> | <b>138891</b>  |
| CAPROLACTUM                | NETHERLAND           | 8966         | 12047          |
|                            | POLAND               | 8500         | 11516          |
|                            | RUSSIA               | 7828         | 10546          |
|                            | U S A                | 3959         | 5692           |
|                            | BELGIUM              | 2538         | 3150           |
|                            | <b>Product Total</b> | <b>31791</b> | <b>42951</b>   |
| CELLULOSE ACETATE BUTYRATE | U S A                | 0            | 2              |
|                            | FRANCE               | 0            | 3              |
|                            | <b>Product Total</b> | <b>1</b>     | <b>5</b>       |
| CELLULOSE ACETATE SHEET    | CHINA P RP           | 642          | 360            |
|                            | ITALY                | 593          | 380            |
|                            | U S A                | 22           | 6              |
|                            | GERMANY              | 2            | 1              |
|                            | TAIWAN               | 1            | 1              |
|                            | <b>Product Total</b> | <b>1260</b>  | <b>748</b>     |
| CELLULOSE NITRATE SHEET    | KOREA RP             | 200          | 290            |
|                            | JAPAN                | 58           | 155            |
|                            | GERMANY              | 4            | 11             |
|                            | CHINA P RP           | 2            | 10             |
|                            | HONG KONG            | 0            | 1              |
|                            | <b>Product Total</b> | <b>263</b>   | <b>467</b>     |
| DIMETHYL TEREPHTHALATE     | KOREA RP             | 954          | 736            |
|                            | JAPAN                | 760          | 574            |
|                            | IRAN                 | 180          | 130            |
|                            | TURKEY               | 150          | 122            |
|                            | CHINA P RP           | 30           | 17             |
|                            | <b>Product Total</b> | <b>2074</b>  | <b>1578</b>    |
| EPICHLHYDRINE              | THAILAND             | 24201        | 23965          |

**Table : 28 Top Five Sources (countries) of Import of selected Petrochemicals during 2014-15**

| PRODUCT                | COUNTRY              | QUANTITY(MT)  | VALUE(RS.Lakh) |
|------------------------|----------------------|---------------|----------------|
|                        | KOREA RP             | 3716          | 3736           |
|                        | TAIWAN               | 2498          | 2510           |
|                        | JAPAN                | 1844          | 1852           |
|                        | GERMANY              | 1150          | 1191           |
|                        | <b>Product Total</b> | <b>33408</b>  | <b>33254</b>   |
| ETHYL BENZENE          | CHINA P RP           | 56            | 84             |
|                        | GERMANY              | 36            | 52             |
|                        | KOREA RP             | 36            | 46             |
|                        | U S A                | 0             | 0              |
|                        | U K                  | 0             | 0              |
|                        | <b>Product Total</b> | <b>128</b>    | <b>182</b>     |
| ETHYL PROPYLENE DIMERS | U S A                | 8915          | 13906          |
|                        | JAPAN                | 6898          | 12272          |
|                        | KOREA RP             | 6753          | 10672          |
|                        | NETHERLAND           | 6283          | 10440          |
|                        | GERMANY              | 2170          | 3533           |
|                        | <b>Product Total</b> | <b>31020</b>  | <b>50824</b>   |
| ETHYL VINYL ACETATE    | KOREA RP             | 103483        | 113787         |
|                        | THAILAND             | 11624         | 11540          |
|                        | BELGIUM              | 7082          | 8243           |
|                        | FRANCE               | 3704          | 5042           |
|                        | SAUDI ARAB           | 3402          | 2452           |
|                        | <b>Product Total</b> | <b>129295</b> | <b>141064</b>  |
| ETHYLENE               | SAUDI ARAB           | 19622         | 17801          |
|                        | QATAR                | 15971         | 14317          |
|                        | SINGAPORE            | 5298          | 4167           |
|                        | MALAYSIA             | 3001          | 2120           |
|                        | CZECH REPUBLIC       | 6             | 14             |
|                        | <b>Product Total</b> | <b>43898</b>  | <b>38420</b>   |
| ETHYLENE DICHLORIDE    | U S A                | 150053        | 38625          |
|                        | QATAR                | 103093        | 26036          |
|                        | SAUDI ARAB           | 100734        | 24877          |
|                        | GERMANY              | 83770         | 20427          |
|                        | IRAN                 | 20482         | 4927           |
|                        | <b>Product Total</b> | <b>458132</b> | <b>114892</b>  |
| ETHYLENE OXIDE         | U S A                | 28            | 339            |
|                        | CHINA P RP           | 10            | 168            |

**Table : 28 Top Five Sources (countries) of Import of selected Petrochemicals during 2014-15**

| PRODUCT                                       | COUNTRY              | QUANTITY(MT)  | VALUE(RS.Lakh) |
|-----------------------------------------------|----------------------|---------------|----------------|
|                                               | JAPAN                | 2             | 10             |
|                                               | ITALY                | 1             | 9              |
|                                               | ARGENTINA            | 0             | 16             |
|                                               | <b>Product Total</b> | <b>41</b>     | <b>543</b>     |
| <b>EXPANDABLE<br/>POLYESTYRENE</b>            | CHINA P RP           | 1615          | 1640           |
|                                               | TAIWAN               | 804           | 904            |
|                                               | THAILAND             | 160           | 168            |
|                                               | U ARAB EMTS          | 147           | 138            |
|                                               | GERMANY              | 139           | 232            |
|                                               | <b>Product Total</b> | <b>2865</b>   | <b>3082</b>    |
| <b>HIGH DENSITY<br/>POLYTHYLENE</b>           | SAUDI ARAB           | 226866        | 203451         |
|                                               | SINGAPORE            | 134249        | 138968         |
|                                               | U ARAB EMTS          | 112270        | 99843          |
|                                               | QATAR                | 108735        | 102069         |
|                                               | THAILAND             | 75707         | 77671          |
|                                               | <b>Product Total</b> | <b>657827</b> | <b>622002</b>  |
| <b>ISO BUTYLENE</b>                           | KOREA RP             | 6164          | 6002           |
|                                               | TAIWAN               | 2730          | 2655           |
|                                               | IRAN                 | 1767          | 1409           |
|                                               | THAILAND             | 1586          | 1185           |
|                                               | EGYPT A RP           | 402           | 333            |
|                                               | <b>Product Total</b> | <b>12650</b>  | <b>11584</b>   |
| <b>ISOPROPANOL</b>                            | KOREA RP             | 16123         | 12998          |
|                                               | TAIWAN               | 12729         | 10020          |
|                                               | CHINA P RP           | 11237         | 9676           |
|                                               | SINGAPORE            | 8343          | 6646           |
|                                               | U S A                | 5911          | 4706           |
|                                               | <b>Product Total</b> | <b>54343</b>  | <b>44046</b>   |
| <b>LINEAR ALKYL<br/>BENZENE</b>               | QATAR                | 57458         | 57267          |
|                                               | SAUDI ARAB           | 40715         | 43619          |
|                                               | IRAN                 | 23608         | 23589          |
|                                               | CHINA P RP           | 9698          | 10470          |
|                                               | KOREA RP             | 2481          | 2887           |
|                                               | <b>Product Total</b> | <b>133961</b> | <b>137833</b>  |
| <b>LINEAR LOW<br/>DENSITY<br/>POLYTHYLENE</b> | SAUDI ARAB           | 193976        | 180727         |
|                                               | QATAR                | 78676         | 72264          |
|                                               | SINGAPORE            | 71242         | 69804          |

**Table : 28 Top Five Sources (countries) of Import of selected Petrochemicals during 2014-15**

| PRODUCT                  | COUNTRY              | QUANTITY(MT)  | VALUE(RS.Lakh) |
|--------------------------|----------------------|---------------|----------------|
|                          | U ARAB EMTS          | 54444         | 47892          |
|                          | THAILAND             | 25364         | 24476          |
|                          | <b>Product Total</b> | <b>423701</b> | <b>395164</b>  |
| LOW DENSITY POLYETHYLENE | SAUDI ARAB           | 97250         | 87995          |
|                          | QATAR                | 50201         | 46196          |
|                          | MALAYSIA             | 24195         | 23332          |
|                          | KOREA RP             | 21144         | 24029          |
|                          | GERMANY              | 19517         | 22770          |
|                          | <b>Product Total</b> | <b>212306</b> | <b>204321</b>  |
| MELAMINE MOULDING POWDER | THAILAND             | 4222          | 4564           |
|                          | TAIWAN               | 2607          | 2979           |
|                          | CHINA P RP           | 893           | 1093           |
|                          | GERMANY              | 700           | 1132           |
|                          | NORWAY               | 310           | 428            |
|                          | <b>Product Total</b> | <b>8733</b>   | <b>10196</b>   |
| METAXYLENE               | TAIWAN               | 559           | 432            |
|                          | JAPAN                | 386           | 470            |
|                          | GERMANY              | 0             | 0              |
|                          | <b>Product Total</b> | <b>946</b>    | <b>902</b>     |
| METHYL ISOBUTYL KETONE   | KOREA RP             | 6788          | 7500           |
|                          | SOUTH AFRICA         | 6456          | 6942           |
|                          | U S A                | 3771          | 4125           |
|                          | JAPAN                | 3091          | 3179           |
|                          | NETHERLAND           | 1506          | 2087           |
|                          | <b>Product Total</b> | <b>21613</b>  | <b>23833</b>   |
| MIXED XYLENE             | SINGAPORE            | 1594          | 1097           |
|                          | GERMANY              | 42            | 46             |
|                          | U ARAB EMTS          | 10            | 10             |
|                          | JAPAN                | 0             | 1              |
|                          | CHINA P RP           | 0             | 1              |
|                          | <b>Product Total</b> | <b>1647</b>   | <b>1155</b>    |
| MONO EHYLENE GLYCOL      | KUWAIT               | 412230        | 225001         |
|                          | SAUDI ARAB           | 401461        | 218491         |
|                          | SINGAPORE            | 102012        | 59556          |
|                          | IRAN                 | 82194         | 44041          |
|                          | MALAYSIA             | 1778          | 451            |
|                          | <b>Product Total</b> | <b>999675</b> | <b>547539</b>  |

**Table : 28 Top Five Sources (countries) of Import of selected Petrochemicals during 2014-15**

| PRODUCT                         | COUNTRY         | QUANTITY(MT) | VALUE(RS.Lakh) |
|---------------------------------|-----------------|--------------|----------------|
| NITRILE BUTADIENE RUBBER        | KOREA RP        | 11462        | 18232          |
|                                 | FRANCE          | 4469         | 8064           |
|                                 | JAPAN           | 3700         | 7709           |
|                                 | TAIWAN          | 1466         | 2131           |
|                                 | RUSSIA          | 1343         | 2015           |
|                                 | Product Total   | 22441        | 38151          |
| NYLON FILAMENT YARN             | VIETNAM SOC REP | 8618         | 18370          |
|                                 | TAIWAN          | 6929         | 13896          |
|                                 | MALAYSIA        | 4457         | 8449           |
|                                 | CHINA P RP      | 2818         | 5739           |
|                                 | FRANCE          | 1379         | 3052           |
|                                 | Product Total   | 24201        | 49507          |
| NYLON INDUSTRIAL YARN/TYRE CORD | CHINA P RP      | 1670         | 3290           |
|                                 | BELARUS         | 600          | 1144           |
|                                 | TAIWAN          | 567          | 1116           |
|                                 | INDONESIA       | 349          | 585            |
|                                 | KOREA RP        | 150          | 120            |
|                                 | Product Total   | 3336         | 6256           |
| NYLON-6                         | TAIWAN          | 44321        | 66639          |
|                                 | U S A           | 24955        | 43446          |
|                                 | RUSSIA          | 18900        | 27745          |
|                                 | THAILAND        | 9462         | 15945          |
|                                 | GERMANY         | 8847         | 17690          |
|                                 | Product Total   | 106485       | 171465         |
| ORTHO-XYLENE                    | SINGAPORE       | 13861        | 9454           |
|                                 | IRAN            | 11728        | 6784           |
|                                 | ISRAEL          | 4073         | 3009           |
|                                 | NETHERLAND      | 1997         | 1519           |
|                                 | SPAIN           | 1540         | 897            |
|                                 | Product Total   | 33199        | 21662          |
| OXO ALCOHOL                     | INDONESIA       | 548          | 1655           |
|                                 | CHINA P RP      | 252          | 1048           |
|                                 | SINGAPORE       | 182          | 241            |
|                                 | GERMANY         | 151          | 457            |
|                                 | U S A           | 54           | 90             |
|                                 | Product Total   | 1186         | 3491           |
| PARAXYLENE                      | KUWAIT          | 257559       | 187192         |

**Table : 28 Top Five Sources (countries) of Import of selected Petrochemicals during 2014-15**

| PRODUCT               | COUNTRY              | QUANTITY(MT)   | VALUE(RS.Lakh) |
|-----------------------|----------------------|----------------|----------------|
|                       | OMAN                 | 165415         | 124187         |
|                       | SINGAPORE            | 123531         | 88936          |
|                       | SAUDI ARAB           | 117599         | 81078          |
|                       | MALAYSIA             | 24051          | 15939          |
|                       | <b>Product Total</b> | <b>688155</b>  | <b>497331</b>  |
| PHTHALIC ANHYDRIDE    | RUSSIA               | 20182          | 15310          |
|                       | KOREA RP             | 15124          | 11706          |
|                       | ISRAEL               | 6878           | 4926           |
|                       | TAIWAN               | 5093           | 4032           |
|                       | THAILAND             | 3620           | 2655           |
|                       | <b>Product Total</b> | <b>50898</b>   | <b>38629</b>   |
| PIB                   | KOREA RP             | 8545           | 11104          |
|                       | GERMANY              | 863            | 2620           |
|                       | BELGIUM              | 856            | 1147           |
|                       | BRAZIL               | 525            | 681            |
|                       | FRANCE               | 239            | 378            |
|                       | <b>Product Total</b> | <b>11029</b>   | <b>15930</b>   |
| POLY BUTADIENE RUBBER | KOREA RP             | 35663          | 40047          |
|                       | U S A                | 8881           | 10204          |
|                       | RUSSIA               | 7835           | 9013           |
|                       | FRANCE               | 2811           | 2920           |
|                       | U ARAB EMTS          | 2641           | 2480           |
|                       | <b>Product Total</b> | <b>57832</b>   | <b>64663</b>   |
| POLY VINYL CHLORIDE   | TAIWAN               | 339498         | 215345         |
|                       | KOREA RP             | 294553         | 188554         |
|                       | CHINA P RP           | 294078         | 181181         |
|                       | IRAN                 | 61519          | 35868          |
|                       | JAPAN                | 48024          | 39212          |
|                       | <b>Product Total</b> | <b>1037671</b> | <b>660161</b>  |
| POLYACETAL RESIN      | MALAYSIA             | 10026          | 9855           |
|                       | THAILAND             | 7408           | 6483           |
|                       | KOREA RP             | 6420           | 5595           |
|                       | NETHERLAND           | 4099           | 2636           |
|                       | U S A                | 1799           | 1418           |
|                       | <b>Product Total</b> | <b>29752</b>   | <b>25987</b>   |
| POLYCARBONATE         | THAILAND             | 42259          | 62866          |
|                       | SPAIN                | 21706          | 32499          |

**Table : 28 Top Five Sources (countries) of Import of selected Petrochemicals during 2014-15**

| PRODUCT                          | COUNTRY              | QUANTITY(MT)  | VALUE(RS.Lakh) |
|----------------------------------|----------------------|---------------|----------------|
|                                  | SAUDI ARAB           | 17305         | 23782          |
|                                  | KOREA RP             | 13349         | 23590          |
|                                  | NETHERLAND           | 9746          | 15311          |
|                                  | <b>Product Total</b> | <b>104366</b> | <b>158049</b>  |
| <b>POLYESTER CHIPS/PET CHIPS</b> | CHINA P RP           | 81030         | 60498          |
|                                  | IRAN                 | 26281         | 18490          |
|                                  | TAIWAN               | 17262         | 13007          |
|                                  | MALAYSIA             | 12254         | 9514           |
|                                  | U ARAB EMTS          | 8357          | 5418           |
|                                  | <b>Product Total</b> | <b>145183</b> | <b>106928</b>  |
| <b>POLYESTER FILAMENT YARN</b>   | CHINA P RP           | 30817         | 35628          |
|                                  | MALAYSIA             | 15325         | 15412          |
|                                  | INDONESIA            | 9499          | 10126          |
|                                  | KOREA RP             | 6925          | 9394           |
|                                  | THAILAND             | 3236          | 6062           |
|                                  | <b>Product Total</b> | <b>65802</b>  | <b>76623</b>   |
| <b>POLYESTER STAPLE FIBRE</b>    | CHINA P RP           | 59258         | 48242          |
|                                  | KOREA RP             | 5325          | 5981           |
|                                  | INDONESIA            | 4834          | 3666           |
|                                  | THAILAND             | 4194          | 3474           |
|                                  | TAIWAN               | 3218          | 4282           |
|                                  | <b>Product Total</b> | <b>76829</b>  | <b>65645</b>   |
| <b>POLYESTYRENE</b>              | SINGAPORE            | 10452         | 11593          |
|                                  | KOREA RP             | 10251         | 14750          |
|                                  | TAIWAN               | 4916          | 5443           |
|                                  | MALAYSIA             | 2989          | 3710           |
|                                  | CHINA P RP           | 2150          | 2163           |
|                                  | <b>Product Total</b> | <b>30759</b>  | <b>37659</b>   |
| <b>POLYMETHYL METHACRYLATE</b>   | KOREA RP             | 7796          | 11115          |
|                                  | THAILAND             | 1608          | 1643           |
|                                  | GERMANY              | 1517          | 2302           |
|                                  | SINGAPORE            | 1256          | 1074           |
|                                  | JAPAN                | 806           | 1574           |
|                                  | <b>Product Total</b> | <b>12982</b>  | <b>17708</b>   |
| <b>POLYOL</b>                    | CHINA P RP           | 46839         | 55683          |
|                                  | KOREA RP             | 31805         | 44856          |
|                                  | SINGAPORE            | 25642         | 35897          |

**Table : 28 Top Five Sources (countries) of Import of selected Petrochemicals during 2014-15**

| PRODUCT                                    | COUNTRY              | QUANTITY(MT)  | VALUE(RS.Lakh) |
|--------------------------------------------|----------------------|---------------|----------------|
|                                            | THAILAND             | 15088         | 21833          |
|                                            | TAIWAN               | 14092         | 18205          |
|                                            | <b>Product Total</b> | <b>133466</b> | <b>176474</b>  |
| <b>POLYPROPYLENE<br/>(INC. CO-POLYMER)</b> | SAUDI ARAB           | 210174        | 184155         |
|                                            | SINGAPORE            | 111032        | 113627         |
|                                            | U ARAB EMTS          | 93699         | 81419          |
|                                            | KOREA RP             | 47357         | 51453          |
|                                            | THAILAND             | 45309         | 45820          |
|                                            | <b>Product Total</b> | <b>507571</b> | <b>476474</b>  |
| <b>POLYPROPYLENE<br/>FILAMENT YARN</b>     | TURKEY               | 369           | 494            |
|                                            | CHINA P RP           | 265           | 416            |
|                                            | KOREA RP             | 50            | 30             |
|                                            | SAUDI ARAB           | 15            | 11             |
|                                            | U ARAB EMTS          | 14            | 23             |
|                                            | <b>Product Total</b> | <b>715</b>    | <b>974</b>     |
| <b>POLYPROPYLENE<br/>STAPLE FIBRE</b>      | SAUDI ARAB           | 150           | 161            |
|                                            | CHINA P RP           | 91            | 134            |
|                                            | VIETNAM SOC REP      | 24            | 25             |
|                                            | BRAZIL               | 21            | 47             |
|                                            | KOREA RP             | 11            | 22             |
|                                            | <b>Product Total</b> | <b>296</b>    | <b>389</b>     |
| <b>POLYTETRAFLUOROE<br/>THYLENE(PTFE)</b>  | CHINA P RP           | 1057          | 4799           |
|                                            | NETHERLAND           | 337           | 2206           |
|                                            | RUSSIA               | 244           | 940            |
|                                            | U S A                | 224           | 1642           |
|                                            | ITALY                | 109           | 782            |
|                                            | <b>Product Total</b> | <b>1971</b>   | <b>10369</b>   |
| <b>POLYVINYL ACETATE<br/>RESIN</b>         | GERMANY              | 2447          | 3326           |
|                                            | CHINA P RP           | 515           | 1036           |
|                                            | U S A                | 381           | 2870           |
|                                            | U ARAB EMTS          | 134           | 236            |
|                                            | KOREA RP             | 117           | 133            |
|                                            | <b>Product Total</b> | <b>3594</b>   | <b>7600</b>    |
| <b>PROPYLENE</b>                           | FRANCE               | 1968          | 2019           |
|                                            | CHINA P RP           | 122           | 621            |
|                                            | U S A                | 35            | 39             |
|                                            | BELGIUM              | 2             | 10             |

Table : 28 Top Five Sources (countries) of Import of selected Petrochemicals during 2014-15

| PRODUCT                    | COUNTRY       | QUANTITY(MT) | VALUE(RS.Lakh) |
|----------------------------|---------------|--------------|----------------|
|                            | ITALY         | 0            | 1              |
|                            | Product Total | 2127         | 2691           |
| PROPYLENE GLYCOL           | THAILAND      | 12698        | 13262          |
|                            | CHINA P RP    | 12326        | 11756          |
|                            | SINGAPORE     | 12292        | 13219          |
|                            | KOREA RP      | 3909         | 4289           |
|                            | GERMANY       | 3718         | 3434           |
|                            | Product Total | 44943        | 45960          |
| PROPYLENE OXIDE            | SAUDI ARAB    | 16371        | 18117          |
|                            | KOREA RP      | 2229         | 3043           |
|                            | SINGAPORE     | 2221         | 2221           |
|                            | THAILAND      | 2001         | 2394           |
|                            | TAIWAN        | 89           | 117            |
|                            | Product Total | 22911        | 25893          |
| PURIFIED TEREPHTHALIC ACID | KOREA RP      | 417997       | 226779         |
|                            | THAILAND      | 239510       | 127306         |
|                            | CHINA P RP    | 169240       | 95327          |
|                            | TAIWAN        | 71614        | 38377          |
|                            | MALAYSIA      | 61058        | 30707          |
|                            | Product Total | 959420       | 518495         |
| PVC COMPOUND               | KOREA RP      | 17899        | 12250          |
|                            | CHINA P RP    | 8748         | 8173           |
|                            | TAIWAN        | 7180         | 4678           |
|                            | GERMANY       | 5133         | 3884           |
|                            | U S A         | 4531         | 3399           |
|                            | Product Total | 43491        | 32384          |
| STYRENE                    | SINGAPORE     | 256811       | 222456         |
|                            | SAUDI ARAB    | 218759       | 192783         |
|                            | KUWAIT        | 109455       | 95841          |
|                            | INDONESIA     | 17840        | 17902          |
|                            | MALAYSIA      | 8918         | 8862           |
|                            | Product Total | 611784       | 537844         |
| STYRENE ACRYLONITRILE      | KOREA RP      | 4145         | 4775           |
|                            | GERMANY       | 755          | 1153           |
|                            | THAILAND      | 714          | 838            |
|                            | TAIWAN        | 179          | 216            |
|                            | CHINA P RP    | 162          | 234            |

**Table : 28 Top Five Sources (countries) of Import of selected Petrochemicals during 2014-15**

| PRODUCT                           | COUNTRY              | QUANTITY(MT)  | VALUE(RS.Lakh) |
|-----------------------------------|----------------------|---------------|----------------|
|                                   | <b>Product Total</b> | <b>5955</b>   | <b>7216</b>    |
| <b>STYRENE BUTADIENE RUBBER</b>   | KOREA RP             | 126378        | 149999         |
|                                   | POLAND               | 23869         | 26803          |
|                                   | THAILAND             | 19064         | 19657          |
|                                   | INDONESIA            | 15662         | 15451          |
|                                   | GERMANY              | 7183          | 8861           |
|                                   | <b>Product Total</b> | <b>192157</b> | <b>220772</b>  |
| <b>TOLUENE</b>                    | SINGAPORE            | 133648        | 86566          |
|                                   | THAILAND             | 65936         | 43910          |
|                                   | IRAN                 | 47394         | 26264          |
|                                   | KOREA RP             | 9236          | 6372           |
|                                   | SPAIN                | 8338          | 4689           |
|                                   | <b>Product Total</b> | <b>264552</b> | <b>167802</b>  |
| <b>UNSATURATED POLYSTER RESIN</b> | TAIWAN               | 11322         | 9180           |
|                                   | CHINA P RP           | 9106          | 8340           |
|                                   | U ARAB EMTS          | 3651          | 4410           |
|                                   | ITALY                | 2040          | 4019           |
|                                   | GERMANY              | 504           | 1462           |
|                                   | <b>Product Total</b> | <b>26623</b>  | <b>27411</b>   |
| <b>VINYL ACTATE MONOMER</b>       | SINGAPORE            | 106962        | 88421          |
|                                   | CHINA P RP           | 26667         | 21789          |
|                                   | SAUDI ARAB           | 5306          | 3663           |
|                                   | TAIWAN               | 524           | 485            |
|                                   | NETHERLAND           | 79            | 114            |
|                                   | <b>Product Total</b> | <b>139538</b> | <b>114472</b>  |
| <b>VINYL CHLORIDE MONOMER</b>     | QATAR                | 177623        | 99395          |
|                                   | JAPAN                | 65327         | 36402          |
|                                   | U S A                | 36826         | 21521          |
|                                   | TAIWAN               | 15793         | 8586           |
|                                   | CHINA P RP           | 11704         | 7155           |
|                                   | <b>Product Total</b> | <b>307273</b> | <b>173059</b>  |

Table - 29: Exchange Rates of Indian Rupee vis-a-vis US\$

| MONTH        | RS./US\$ |
|--------------|----------|
| July-15      | 63.63    |
| June-15      | 63.86    |
| May-15       | 63.80    |
| April-15     | 62.72    |
| March-15     | 62.45    |
| February-15  | 62.04    |
| January-15   | 62.23    |
| December-14  | 62.75    |
| November-14  | 61.70    |
| October-14   | 61.34    |
| September-14 | 60.86    |
| August-14    | 60.90    |
| July-14      | 60.06    |
| June-14      | 59.73    |
| May-14       | 59.31    |
| April-14     | 60.36    |
| March-14     | 61.01    |
| February-14  | 62.25    |
| January-14   | 62.08    |
| December-13  | 61.91    |
| November-13  | 62.63    |
| October-13   | 61.62    |
| September-13 | 63.75    |
| August-13    | 63.21    |
| July-13      | 59.79    |
| June-13      | 58.46    |
| May-13       | 55.01    |
| April-13     | 54.38    |
| March-13     | 54.40    |
| February-13  | 53.77    |
| January-13   | 53.32    |
| December-12  | 54.65    |
| November-12  | 54.78    |
| October-12   | 53.02    |
| September-12 | 54.61    |
| August-12    | 55.56    |

**Table - 29: Exchange Rates of Indian Rupee vis-a-vis US\$**

|              |       |
|--------------|-------|
| July-12      | 55.49 |
| June-12      | 56.03 |
| May-12       | 54.47 |
| April-12     | 51.80 |
| March-12     | 50.32 |
| February-12  | 49.16 |
| January-12   | 51.35 |
| December-11  | 52.67 |
| November-11  | 50.84 |
| October-11   | 49.26 |
| September-11 | 47.64 |
| August-11    | 45.28 |
| July-11      | 44.42 |
| June-11      | 44.85 |
| May-11       | 44.90 |
| April-11     | 44.37 |
| March-11     | 44.99 |
| February-11  | 45.44 |
| January-11   | 45.39 |
| December-10  | 45.16 |
| November-10  | 45.02 |
| October-10   | 44.41 |
| September-10 | 46.06 |
| August-10    | 46.57 |
| July-10      | 46.84 |
| June-10      | 46.56 |
| May-10       | 45.80 |
| April-10     | 44.50 |
| March-10     | 45.50 |
| February-10  | 46.33 |
| January-10   | 45.96 |

**Note :** Worked out on the basis of average daily exchange rates, as notified by RBI.

**Source:**<http://dbie.rbi.org.in/DBIE/dbie.rbi?site=home>

**Table - 30 : World Exports of Chemicals by top 10 countries- 2014**

Value in US\$ Million

| Rank                | HS Code               |               |                       |               |                       |               |                    |              |                       |              |
|---------------------|-----------------------|---------------|-----------------------|---------------|-----------------------|---------------|--------------------|--------------|-----------------------|--------------|
|                     | 28                    |               | 29                    |               | 30                    |               | 31                 |              | 32                    |              |
|                     | Country               | Trade Value   | Country               | Trade Value   | Country               | Trade Value   | Country            | Trade Value  | Country               | Trade Value  |
| <b>1st</b>          | <b>China</b>          | <b>15026</b>  | <b>China</b>          | <b>45444</b>  | <b>Germany</b>        | <b>80143</b>  | <b>China</b>       | <b>8920</b>  | <b>Germany</b>        | <b>14054</b> |
| <b>2nd</b>          | <b>USA</b>            | <b>13051</b>  | <b>USA</b>            | <b>43515</b>  | <b>Switzerland</b>    | <b>62581</b>  | <b>Canada</b>      | <b>5573</b>  | <b>USA</b>            | <b>8298</b>  |
| <b>3rd</b>          | <b>Germany</b>        | <b>9872</b>   | <b>Belgium</b>        | <b>34066</b>  | <b>Belgium</b>        | <b>49846</b>  | <b>USA</b>         | <b>5510</b>  | <b>China</b>          | <b>6724</b>  |
| <b>4th</b>          | <b>Australia</b>      | <b>5824</b>   | <b>Germany</b>        | <b>30426</b>  | <b>United Kingdom</b> | <b>49161</b>  | <b>Belarus</b>     | <b>3069</b>  | <b>United Kingdom</b> | <b>5107</b>  |
| <b>5th</b>          | <b>France</b>         | <b>4244</b>   | <b>Ireland</b>        | <b>26410</b>  | <b>USA</b>            | <b>46256</b>  | <b>Netherlands</b> | <b>2821</b>  | <b>Netherlands</b>    | <b>4391</b>  |
| <b>6th</b>          | <b>United Kingdom</b> | <b>4141</b>   | <b>Japan</b>          | <b>23498</b>  | <b>France</b>         | <b>35161</b>  | <b>Germany</b>     | <b>2462</b>  | <b>Japan</b>          | <b>4363</b>  |
| <b>7th</b>          | <b>Canada</b>         | <b>4109</b>   | <b>Netherlands</b>    | <b>23037</b>  | <b>Italy</b>          | <b>28976</b>  | <b>Belgium</b>     | <b>2424</b>  | <b>Belgium</b>        | <b>4128</b>  |
| <b>8th</b>          | <b>Netherlands</b>    | <b>4064</b>   | <b>Switzerland</b>    | <b>19639</b>  | <b>Ireland</b>        | <b>27230</b>  | <b>Qatar</b>       | <b>1760</b>  | <b>Italy</b>          | <b>3494</b>  |
| <b>9th</b>          | <b>Belgium</b>        | <b>3936</b>   | <b>Singapore</b>      | <b>18350</b>  | <b>Netherlands</b>    | <b>25357</b>  | <b>Israel</b>      | <b>1496</b>  | <b>France</b>         | <b>3447</b>  |
| <b>10th</b>         | <b>Japan</b>          | <b>3831</b>   | <b>United Kingdom</b> | <b>17409</b>  | <b>Spain</b>          | <b>12682</b>  | <b>Lithuania</b>   | <b>1124</b>  | <b>Spain</b>          | <b>2915</b>  |
| <b>World Export</b> |                       | <b>100194</b> |                       | <b>361819</b> |                       | <b>517605</b> |                    | <b>48061</b> |                       | <b>77419</b> |

**Table - 30 : World Exports of Chemicals by top 10 countries- 2014**

Value in US\$ Million

| Rank                | HS Code               |               |                       |               |                    |              |                             |              |                       |              |
|---------------------|-----------------------|---------------|-----------------------|---------------|--------------------|--------------|-----------------------------|--------------|-----------------------|--------------|
|                     | 38                    |               | 39                    |               | 4002               |              | 54                          |              | 55                    |              |
|                     | Country               | Trade Value   | Country               | Trade Value   | Country            | Trade Value  | Country                     | Trade Value  | Country               | Trade Value  |
| <b>1st</b>          | <b>USA</b>            | 28355         | <b>China</b>          | 66793         | <b>USA</b>         | 3222         | <b>China</b>                | 16879        | <b>China</b>          | 12818        |
| <b>2nd</b>          | <b>Germany</b>        | 25705         | <b>USA</b>            | 65927         | <b>Japan</b>       | 2593         | <b>India</b>                | 2505         | <b>USA</b>            | 2779         |
| <b>3rd</b>          | <b>China</b>          | 14211         | <b>Germany</b>        | 63269         | <b>Germany</b>     | 1809         | <b>Italy</b>                | 2389         | <b>India</b>          | 2182         |
| <b>4th</b>          | <b>France</b>         | 12578         | <b>Belgium</b>        | 32303         | <b>Belgium</b>     | 1620         | <b>Japan</b>                | 2181         | <b>Japan</b>          | 1978         |
| <b>5th</b>          | <b>United Kingdom</b> | 11465         | <b>Netherlands</b>    | 25940         | <b>France</b>      | 802          | <b>USA</b>                  | 2001         | <b>Germany</b>        | 1801         |
| <b>6th</b>          | <b>Netherlands</b>    | 10066         | <b>Japan</b>          | 25303         | <b>Netherlands</b> | 702          | <b>Germany</b>              | 1938         | <b>Turkey</b>         | 1456         |
| <b>7th</b>          | <b>Japan</b>          | 10057         | <b>France</b>         | 23023         | <b>China</b>       | 510          | <b>Turkey</b>               | 1773         | <b>Thailand</b>       | 1319         |
| <b>8th</b>          | <b>Belgium</b>        | 8221          | <b>Italy</b>          | 21683         | <b>Poland</b>      | 437          | <b>Netherlands</b>          | 1136         | <b>Italy</b>          | 1254         |
| <b>9th</b>          | <b>Italy</b>          | 6111          | <b>United Kingdom</b> | 17562         | <b>Singapore</b>   | 399          | <b>United Kingdom</b>       | 1024         | <b>Belgium</b>        | 1158         |
| <b>10th</b>         | <b>Israel</b>         | 5224          | <b>Singapore</b>      | 16389         | <b>Canada</b>      | 373          | <b>China, Hong Kong SAR</b> | 965          | <b>United Kingdom</b> | 884          |
| <b>World Export</b> |                       | <b>175330</b> |                       | <b>511223</b> |                    | <b>15329</b> |                             | <b>39738</b> |                       | <b>33520</b> |

**Table - 30 : World Exports of Chemicals by top 10 countries- 2014**

Value in US\$ Million

| Rank        | HS Code               |                |                                         |                |
|-------------|-----------------------|----------------|-----------------------------------------|----------------|
|             | All Chemicals @       |                | All Chemicals excluding Pharmaceuticals |                |
|             | Country               | Trade Value    | Country                                 | Trade Value    |
| <b>1st</b>  | <b>Germany</b>        | <b>231479</b>  | <b>China</b>                            | <b>187324</b>  |
| <b>2nd</b>  | <b>USA</b>            | <b>218913</b>  | <b>USA</b>                              | <b>172657</b>  |
| <b>3rd</b>  | <b>China</b>          | <b>193916</b>  | <b>Germany</b>                          | <b>151336</b>  |
| <b>4th</b>  | <b>Belgium</b>        | <b>138377</b>  | <b>Belgium</b>                          | <b>88531</b>   |
| <b>5th</b>  | <b>United Kingdom</b> | <b>107630</b>  | <b>Japan</b>                            | <b>73923</b>   |
| <b>6th</b>  | <b>Netherlands</b>    | <b>97830</b>   | <b>Netherlands</b>                      | <b>72473</b>   |
| <b>7th</b>  | <b>France</b>         | <b>94469</b>   | <b>France</b>                           | <b>59308</b>   |
| <b>8th</b>  | <b>Switzerland</b>    | <b>93147</b>   | <b>United Kingdom</b>                   | <b>58469</b>   |
| <b>9th</b>  | <b>Japan</b>          | <b>76849</b>   | <b>Italy</b>                            | <b>46289</b>   |
| <b>10th</b> | <b>Italy</b>          | <b>75264</b>   | <b>Singapore</b>                        | <b>42278</b>   |
|             | <b>World Export</b>   | <b>1880238</b> | <b>World Export</b>                     | <b>1362633</b> |

@-Includes all products covered under the HS code 28,29,30,31,32,38,39, 4002,54 and 55

Chapter 28: Inorganic Chemicals; Organic or Inorganic Compounds of Precious Metals, of Rare-Earth Metals, of Radioactive Elements or of Isotopes; Chapter 29: Organic Chemicals; Chapter 30: Pharmaceutical products; Chapter 31: Fertilizers ; Chapter 32: Tanning or Dyeing Extracts; Tannins and their Derivatives; Dyes, Pigments and Other Colouring Matter; Paints and Varnishes; Putty and other Mastics; Inks; Chapter 38: Miscellaneous Chemical Products; Chapter 39: Plastics and articles thereof; 4002: Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of any pro; Chapter 54: Man-made Filaments and Chapter 55: Man-made staple fibres

Source : <http://comtrade.un.org/> (UN Comtrade Database)

Date : 18.06.2015

**Table - 31 : World Imports of Chemicals by top 10 countries- 2014**

Value in US\$ Million

| Rank                | HS Code        |               |                |               |                |               |                |              |                |              |
|---------------------|----------------|---------------|----------------|---------------|----------------|---------------|----------------|--------------|----------------|--------------|
|                     | 28             |               | 29             |               | 30             |               | 31             |              | 32             |              |
|                     | Country        | Trade Value   | Country        | Trade Value   | Country        | Trade Value   | Country        | Trade Value  | Country        | Trade Value  |
| <b>Ist</b>          | USA            | 14231         | China          | 60418         | USA            | 73155         | USA            | 8644         | Germany        | 7705         |
| <b>2nd</b>          | China          | 10435         | USA            | 54815         | Germany        | 49737         | Brazil         | 8443         | China          | 4520         |
| <b>3rd</b>          | Germany        | 8218          | Belgium        | 35287         | Belgium        | 39416         | India          | 5698         | France         | 4196         |
| <b>4th</b>          | Japan          | 6740          | Germany        | 34476         | United Kingdom | 38675         | China          | 3351         | USA            | 4096         |
| <b>5th</b>          | France         | 6732          | India          | 18239         | France         | 28068         | France         | 2814         | United Kingdom | 3334         |
| <b>6th</b>          | United Kingdom | 5820          | France         | 17847         | Switzerland    | 23527         | Thailand       | 2111         | Italy          | 2907         |
| <b>7th</b>          | India          | 4996          | Netherlands    | 17056         | Italy          | 21475         | Germany        | 1898         | Netherlands    | 2722         |
| <b>8th</b>          | Canada         | 3703          | Italy          | 16869         | Japan          | 19897         | United Kingdom | 1761         | Canada         | 2254         |
| <b>9th</b>          | Netherlands    | 3552          | United Kingdom | 15871         | China          | 17757         | Australia      | 1595         | Belgium        | 2244         |
| <b>10th</b>         | Belgium        | 3502          | Japan          | 15213         | Netherlands    | 16452         | Turkey         | 1471         | Mexico         | 2160         |
| <b>World Import</b> |                | <b>104932</b> |                | <b>404159</b> |                | <b>469912</b> |                | <b>61458</b> |                | <b>66557</b> |

**Table - 31 : World Imports of Chemicals by top 10 countries- 2014**

Value in US\$ Million

| Rank                | HS Code        |               |                |               |          |              |                |              |                      |              |
|---------------------|----------------|---------------|----------------|---------------|----------|--------------|----------------|--------------|----------------------|--------------|
|                     | 38             |               | 39             |               | 4002     |              | 54             |              | 55                   |              |
|                     | Country        | Trade Value   | Country        | Trade Value   | Country  | Trade Value  | Country        | Trade Value  | Country              | Trade Value  |
| <b>Ist</b>          | China          | 17083         | China          | 77553         | China    | 3999         | China          | 3781         | China                | 3311         |
| <b>2nd</b>          | Germany        | 15651         | USA            | 50123         | USA      | 1814         | USA            | 2420         | Turkey               | 2164         |
| <b>3rd</b>          | USA            | 12663         | Germany        | 44813         | Germany  | 1501         | Turkey         | 2361         | Germany              | 2080         |
| <b>4th</b>          | France         | 9179          | United Kingdom | 26204         | Belgium  | 1218         | Germany        | 1912         | USA                  | 1973         |
| <b>5th</b>          | United Kingdom | 7357          | France         | 25533         | India    | 1171         | Italy          | 1721         | Italy                | 1341         |
| <b>6th</b>          | Netherlands    | 6349          | Mexico         | 22316         | Thailand | 1047         | Brazil         | 1618         | United Kingdom       | 1205         |
| <b>7th</b>          | Italy          | 6026          | Italy          | 20888         | France   | 708          | United Kingdom | 1494         | Brazil               | 885          |
| <b>8th</b>          | Belgium        | 5981          | Belgium        | 19370         | Italy    | 686          | Mexico         | 1055         | Spain                | 810          |
| <b>9th</b>          | Canada         | 5468          | Canada         | 16173         | Brazil   | 636          | China, Hong    | 1004         | France               | 792          |
| <b>10th</b>         | Japan          | 5437          | Japan          | 15477         | Turkey   | 631          | France         | 975          | China, Hong Kong SAR | 775          |
| <b>World Import</b> |                | <b>157384</b> |                | <b>530238</b> |          | <b>20346</b> |                | <b>32756</b> |                      | <b>27566</b> |

**Table - 31 : World Imports of Chemicals by top 10 countries- 2014**

Value in US\$ Million

| Rank        | HS Code               |                |                                         |                |
|-------------|-----------------------|----------------|-----------------------------------------|----------------|
|             | All Chemicals         |                | All Chemicals excluding Pharmaceuticals |                |
|             | Country               | Trade Value    | Country                                 | Trade Value    |
| <b>1st</b>  | <b>USA</b>            | <b>223935</b>  | <b>China</b>                            | <b>184451</b>  |
| <b>2nd</b>  | <b>China</b>          | <b>202208</b>  | <b>USA</b>                              | <b>150780</b>  |
| <b>3rd</b>  | <b>Germany</b>        | <b>167991</b>  | <b>Germany</b>                          | <b>118254</b>  |
| <b>4th</b>  | <b>Belgium</b>        | <b>109756</b>  | <b>Belgium</b>                          | <b>70340</b>   |
| <b>5th</b>  | <b>United Kingdom</b> | <b>102260</b>  | <b>France</b>                           | <b>68777</b>   |
| <b>6th</b>  | <b>France</b>         | <b>96845</b>   | <b>United Kingdom</b>                   | <b>63585</b>   |
| <b>7th</b>  | <b>Italy</b>          | <b>76124</b>   | <b>Italy</b>                            | <b>54648</b>   |
| <b>8th</b>  | <b>Japan</b>          | <b>67142</b>   | <b>India</b>                            | <b>49322</b>   |
| <b>9th</b>  | <b>Netherlands</b>    | <b>63778</b>   | <b>Netherlands</b>                      | <b>47326</b>   |
| <b>10th</b> | <b>India</b>          | <b>50953</b>   | <b>Japan</b>                            | <b>47245</b>   |
|             | <b>World Import</b>   | <b>1875308</b> | <b>World Import</b>                     | <b>1405396</b> |

@-Includes all products covered under the HS code 28,29,30,31,32,38,39, 4002,54 and 55

Chapter 28: Inorganic Chemicals; Organic or Inorganic Compounds of Precious Metals, of Rare-Earth Metals, of Radioactive Elements or of Isotopes; Chapter 29: Organic Chemicals; Chapter 30: Pharmaceutical products; Chapter 31: Fertilizers ; Chapter 32: Tanning or Dyeing Extracts; Tannins and their Derivatives; Dyes, Pigments and Other Colouring Matter; Paints and Varnishes; Putty and other Mastics; Inks; Chapter 38: Miscellaneous Chemical Products; Chapter 39: Plastics and articles thereof; 4002: Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of any pro; Chapter 54: Man-made Filaments and Chapter 55: Man-made staple fibres

Source : <http://comtrade.un.org/> (UN Comtrade Database)

Date: 18.06.2015

**Table - 32 : India's share in World Exports and Imports of Chemicals-2014**

| HS Code                                              | Commodity                        | Value in US\$ Million |                 |                   |                   |                  |                 |                   |                   |
|------------------------------------------------------|----------------------------------|-----------------------|-----------------|-------------------|-------------------|------------------|-----------------|-------------------|-------------------|
|                                                      |                                  | Export                |                 |                   |                   | Import           |                 |                   |                   |
|                                                      |                                  | Trade Value           |                 | % of World Export | Rank in the World | Trade Value      |                 | % of World Import | Rank in the World |
|                                                      |                                  | India                 | World           |                   |                   | India            | World           |                   |                   |
| <b>28</b>                                            | INORGANIC CHEMICALS              | 1429                  | 100194          | 1.43              | <b>16</b>         | 4996             | <b>104932</b>   | 4.76              | <b>7</b>          |
| <b>29</b>                                            | ORGANIC CHEMICALS                | 12035                 | 361819          | 3.33              | <b>12</b>         | 18239            | <b>404159</b>   | 4.51              | <b>5</b>          |
| <b>30</b>                                            | PHARMACEUTICAL PRODUCTS          | 11663                 | 517605          | 2.25              | <b>12</b>         | 1631             | <b>469912</b>   | 0.35              | <b>38</b>         |
| <b>31</b>                                            | FERTILISERS.                     | 78                    | 48061           | 0.16              | <b>42</b>         | 5698             | <b>61458</b>    | 9.27              | <b>3</b>          |
| <b>32</b>                                            | TANNING OR DYEING                | 2907                  | 77419           | 3.76              | <b>11</b>         | 1635             | <b>66557</b>    | 2.46              | <b>14</b>         |
| <b>38</b>                                            | MISCELLANEOUS CHEMICAL PRODUCTS. | 3164                  | 175330          | 1.80              | <b>14</b>         | 4257             | <b>157384</b>   | 2.70              | <b>13</b>         |
| <b>39</b>                                            | PLASTIC AND ARTICLES THEREOF.    | 5398                  | 511223          | 1.06              | <b>21</b>         | 11801            | <b>530238</b>   | 2.23              | <b>15</b>         |
| <b>4002</b>                                          | SYNTHETIC RUBBER AND FACTICE     | 58                    | 15329           | 0.38              | <b>20</b>         | 1171             | <b>20346</b>    | 5.75              | <b>5</b>          |
| <b>54</b>                                            | MAN-MADE FILAMENTS.              | 2505                  | 39738           | 6.30              | <b>2</b>          | 809              | 32756           | 2.47              | <b>15</b>         |
| <b>55</b>                                            | MAN-MADE STAPLE FIBRES.          | 2182                  | 33520           | 6.51              | <b>3</b>          | 717              | 27566           | 2.60              | <b>13</b>         |
| <b>All Chemicals @</b>                               |                                  | <b>41420</b>          | <b>1880238</b>  | <b>2.20</b>       | <b>13</b>         | <b>50953</b>     | <b>1875308</b>  | <b>2.72</b>       | <b>10</b>         |
| <b>Chemicals (excluding Pharmaceutical products)</b> |                                  | <b>29757</b>          | <b>1362633</b>  | <b>2.18</b>       | <b>14</b>         | <b>49322</b>     | <b>1405396</b>  | <b>3.51</b>       | <b>8</b>          |
| <b>Total of all HS code commodities</b>              |                                  | <b>317545</b>         | <b>17713509</b> | <b>1.79</b>       | <b>17</b>         | <b>459369.46</b> | <b>17370200</b> | <b>2.64</b>       | <b>12</b>         |

@-Includes all products covered under the HS code 28,29,30,31,32,38,39, 4002,54 and 55

Chapter 28: Inorganic Chemicals; Organic or Inorganic Compounds of Precious Metals, of Rare-Earth Metals, of Radioactive Elements or of Isotopes; Chapter 29: Organic Chemicals; Chapter 30: Pharmaceutical products; Chapter 31: Fertilizers ; Chapter 32: Tanning or Dyeing Extracts; Tannins and their Derivatives; Dyes, Pigments and Other Colouring Matter; Paints and Varnishes; Putty and other Mastics; Inks; Chapter 38: Miscellaneous Chemical Products; Chapter 39: Plastics and articles thereof; 4002: Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of any pro; Chapter 54: Man-made Filaments and Chapter 55: Man-made staple fibres

Source : <http://comtrade.un.org/> (UN Comtrade Database)

*Section – V*

*Foreign  
Direct  
Investment  
(FDI)*

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**Table -33 : Sectors Attracting Highest FDI Equity Inflows during 2013-14 to 2015-16**

| Amount in Rs. crores (US\$ in million) |                                                                                           |                               |                               |                               |                                                    |                                                 |
|----------------------------------------|-------------------------------------------------------------------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------------------------------------|-------------------------------------------------|
| <i>Ranks</i>                           | <i>Sector</i>                                                                             | 2013-14<br>(April -<br>March) | 2014-15<br>(April –<br>March) | 2015-16<br>(April –<br>March) | Cumulative<br>Inflows<br>(April “00<br>–March “15) | % age to total<br>Inflows (In<br>terms of US\$) |
| 1                                      | SERVICES SECTOR **                                                                        | 13294                         | 19963                         | 3091                          | 208634                                             | 17                                              |
|                                        |                                                                                           | 2225                          | 3253                          | 488                           | 43202                                              |                                                 |
| 2                                      | CONSTRUCTION<br>DEVELOPMENT:<br>TOWNSHIPS, HOUSING,                                       | 7508                          | 4582                          | 12                            | 113152                                             | 9                                               |
|                                        |                                                                                           | 1226                          | 758                           | 2                             | 24,066                                             |                                                 |
| 3                                      | TELECOMMUNICATIONS<br><br>(radio paging, cellular<br>mobile, basic telephone<br>services) | 7987                          | 17372                         | 2320                          | 86412                                              | 7                                               |
|                                        |                                                                                           | 1307                          | 2895                          | 364                           | 17422                                              |                                                 |
| 4                                      | COMPUTER SOFTWARE<br>& HARDWARE                                                           | 6896                          | 13564                         | 14428                         | 87665                                              | 7                                               |
|                                        |                                                                                           | 1126                          | 2200                          | 2273                          | 17291                                              |                                                 |
| 5                                      | AUTOMOBILE INDUSTRY                                                                       | 9027                          | 15794                         | 6355                          | 70347                                              | 5                                               |
|                                        |                                                                                           | 1517                          | 2570                          | 1007                          | 13390                                              |                                                 |
| 6                                      | DRUGS &<br>PHARMACEUTICALS                                                                | 7191                          | 9277                          | 1010                          | 66292                                              | 5                                               |
|                                        |                                                                                           | 1279                          | 1523                          | 159                           | 13280                                              |                                                 |
| 7                                      | CHEMICALS (OTHER<br>THAN FERTILIZERS)                                                     | 4738                          | 4077                          | 951                           | 50262                                              | 4                                               |
|                                        |                                                                                           | 878                           | 699                           | 150                           | 10487                                              |                                                 |
| 8                                      | POWER                                                                                     | 6519                          | 3985                          | 976                           | 47617                                              | 4                                               |
|                                        |                                                                                           | 1066                          | 657                           | 155                           | 9712                                               |                                                 |
| 9                                      | TRADING                                                                                   | 8191                          | 16962                         | 4187                          | 47987                                              | 3                                               |
|                                        |                                                                                           | 1343                          | 2761                          | 664                           | 8724                                               |                                                 |
| 10                                     | METALLURGICAL<br>INDUSTRIES                                                               | 3436                          | 2897                          | 467                           | 41614                                              | 3                                               |
|                                        |                                                                                           | 568                           | 472                           | 74                            | 8621                                               |                                                 |

*Note: (i)\*\* Services sector includes Financial, Banking, Insurance, Non-Financial / Business, Outsourcing, R&D, Courier, Tech. Testing and Analysis*

*Source : [http://dipp.nic.in/English/Publications/FDI\\_Statistics/2014/india\\_FDI\\_March2014.pdf](http://dipp.nic.in/English/Publications/FDI_Statistics/2014/india_FDI_March2014.pdf) dated 06.08.2015*

**Table 34: Sector-wise FDI Inflows ( in US \$ million)**

| Industry Groups                                                                  | 1991-2000      | 2000-10         | 2010-11        | 2011-12        | 2012-13        | 2013-14         | 2014-15        | Total           |
|----------------------------------------------------------------------------------|----------------|-----------------|----------------|----------------|----------------|-----------------|----------------|-----------------|
| <b>Food products</b>                                                             | 707.4          | 1237.3          | 246.9          | 239.7          | 522.1          | 4007.5          | 686.9          | 7647.9          |
| <b>Fermentation Industries</b>                                                   | 24.0           | 770.1           | 57.7           | 69.7           | 107.2          | 814.6           | 243.1          | 2086.4          |
| <b>Textiles</b>                                                                  | 241.8          | 828.6           | 129.8          | 164.7          | 104.0          | 199.4           | 164.3          | 1832.6          |
| <b>Wood Products</b>                                                             | 0.0            | 18.8            | 1.6            | 29.6           | 29.2           | 6.2             | 20.4           | 105.7           |
| <b>Paper</b>                                                                     | 250.5          | 716.9           | 44.0           | 454.7          | 19.4           | 140.6           | 91.2           | 1717.3          |
| <b>Leather</b>                                                                   | 33.5           | 42.6            | 9.3            | 8.3            | 46.7           | 6.1             | 36.5           | 183.0           |
| <b>Chemicals</b>                                                                 | 1480.9         | 4446.1          | 2690.2         | 7534.1         | 1618.2         | 2196.2          | 2670.2         | 22636.0         |
| <b>Rubber, Plastic &amp; Petroleum Products<br/>( Including Oil exploration)</b> | 90.3           | 2953.6          | 573.6          | 2217.4         | 857.0          | 482.8           | 1329.5         | 8504.1          |
| <b>Non Metallic Minerals</b>                                                     | 261.1          | 2263.6          | 657.3          | 310.0          | 225.9          | 447.2           | 285.0          | 4450.0          |
| <b>Metals and Metal products</b>                                                 | 186.2          | 3143.2          | 1098.1         | 1786.1         | 1466.2         | 567.6           | 472.0          | 8719.5          |
| <b>Machinery &amp; Equipments</b>                                                | 2043.1         | 15670.4         | 1836.3         | 4147.5         | 1907.8         | 2759.6          | 5659.3         | 34024.0         |
| <b>Transport Equipments</b>                                                      | 0.0            | 4603.2          | 1299.4         | 923.0          | 1537.3         | 1517.3          | 2570.4         | 12450.5         |
| <b>Others Manufacturing</b>                                                      | 1761.6         | 5705.6          | 1495.6         | 850.5          | 282.1          | 511.3           | 1193.7         | 11800.3         |
| <b>Mining(including mining services)</b>                                         | 0.0            | 730.9           | 79.5           | 142.7          | 57.9           | 15.7            | 658.6          | 1682.2          |
| <b>Power</b>                                                                     | 1038.9         | 5220.9          | 1486.2         | 2104.6         | 1642.2         | 1480.3          | 1268.4         | 14241.4         |
| <b>Telecommunication</b>                                                         | 1089.4         | 8915.9          | 1664.5         | 1997.2         | 303.9          | 1307.0          | 2895.0         | 18172.9         |
| <b>Total (Industry)</b>                                                          | 9208.6         | 57267.7         | 13369.9        | 22979.7        | 10727.2        | 16459.3         | 20244.4        | 150256.8        |
| <b>Services</b>                                                                  | 3037.6         | 53021.6         | 8013.1         | 12141.1        | 11696.4        | 7840.0          | 10686.0        | 106436.0        |
| <b>Others</b>                                                                    | 4453.3         | 0.0             | 0.0            | 0.0            | 0.0            | 0.0             | 0.0            | 4453.0          |
| <b>Total</b>                                                                     | <b>16699.6</b> | <b>110289.3</b> | <b>21383.1</b> | <b>35120.8</b> | <b>22423.6</b> | <b>242299.3</b> | <b>30930.5</b> | <b>261146.1</b> |

Source:DIPP <http://eaindustry.nic.in/> dated 06.08.2015

*Section – VI*

*Index of  
Industrial  
Production*

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**Table - 35: Monthly Production Growth in 'Chemicals and Chemical Products' vis-a-vis Manufacturing Sector during April 2014 to May 2015 (Based on Index of Industrial Production)**

| Period                                                     | Chemicals and chemical products | Manufacturing | General |
|------------------------------------------------------------|---------------------------------|---------------|---------|
| Weight                                                     | 100.59                          | 755.27        | 1000.00 |
| <b>Production Growth (%)</b>                               |                                 |               |         |
| Apr'14                                                     | 9.5                             | 1.2           | 1.5     |
| May'14                                                     | 0.5                             | -1.9          | -1.9    |
| Jun'14                                                     | 3.6                             | 1.2           | 0.6     |
| Jul'14                                                     | -6.5                            | -4.8          | -3.9    |
| Aug'14                                                     | -1.4                            | 4.9           | 3.4     |
| Sep'14                                                     | -6.9                            | -6.5          | -3.9    |
| Oct'14                                                     | 11.4                            | 5.8           | 4.2     |
| Nov'14                                                     | 3.7                             | 9.4           | 8.0     |
| Dec'14                                                     | -1.1                            | 2.0           | 1.8     |
| Jan'15                                                     | -4.9                            | -4.0          | -4.3    |
| Feb'15                                                     | 7.7                             | 9.2           | 9.5     |
| Mar'15                                                     | -5.2                            | -10.1         | -9.9    |
| Apr'15                                                     | 3.7                             | -0.8          | 0.8     |
| May'15                                                     | -100                            | -100.0        | -100.0  |
| <b>Index of Industrial Production (Base : 2004-05=100)</b> |                                 |               |         |
| Apr'14                                                     | 127.9                           | 181.4         | 172.7   |
| May'14                                                     | 140.0                           | 183.5         | 175.3   |
| Jun'14                                                     | 140.7                           | 180.1         | 172.0   |
| Jul'14                                                     | 145.7                           | 182.2         | 173.0   |
| Aug'14                                                     | 136.2                           | 173.4         | 166.2   |
| Sep'14                                                     | 134.3                           | 181.9         | 171.8   |
| Oct'14                                                     | 125.1                           | 170.0         | 165.1   |
| Nov'14                                                     | 139.4                           | 179.9         | 172.1   |
| Dec'14                                                     | 144.6                           | 196.8         | 185.9   |
| Jan'15                                                     | 143.0                           | 200.7         | 189.2   |
| Feb'15                                                     | 136.0                           | 192.7         | 181.0   |
| Mar'15                                                     | 146.5                           | 210.4         | 198.2   |
| Apr'15                                                     | 138.9                           | 189.1         | 178.5   |
| May'15                                                     | 144.1                           | 187.5         | 180.0   |

**Table: 36 Annual Production Growth in Chemicals and Chemical Products Vis -a-Vis Manufacturing Sector during 2005-06 to 2014-15 (Based on Index on Industrial Production)**

| <b>Years</b>                                               | <b>Chemicals and Chemical Products</b> | <b>Manufacturing</b> | <b>General</b> |
|------------------------------------------------------------|----------------------------------------|----------------------|----------------|
| Weight                                                     | 100.59                                 | 755.27               | 1000.00        |
| <b>Production Growth (%)</b>                               |                                        |                      |                |
| 2005-06                                                    | 1.0                                    | 10.3                 | 8.6            |
| 2006-07                                                    | 9.3                                    | 15.0                 | 12.9           |
| 2007-08                                                    | 7.2                                    | 18.4                 | 15.5           |
| 2008-09                                                    | -2.9                                   | 2.5                  | 2.5            |
| 2009-10                                                    | 5.0                                    | 4.8                  | 5.3            |
| 2010-11                                                    | 2.0                                    | 8.9                  | 8.2            |
| 2011-12                                                    | -0.4                                   | 3.0                  | 2.9            |
| 2012-13                                                    | 3.8                                    | 1.3                  | 1.1            |
| 2013-14                                                    | 8.9                                    | -0.8                 | -0.1           |
| 2014-2015                                                  | -0.3                                   | 2.3                  | 2.8            |
| <b>Index of Industrial Production ( Base: 2004-05=100)</b> |                                        |                      |                |
| 2005-06                                                    | 101.0                                  | 110.3                | 108.6          |
| 2006-07                                                    | 110.4                                  | 126.8                | 122.6          |
| 2007-08                                                    | 118.4                                  | 150.1                | 141.7          |
| 2008-09                                                    | 115.0                                  | 153.8                | 145.2          |
| 2009-10                                                    | 120.7                                  | 161.3                | 152.9          |
| 2010-11                                                    | 123.1                                  | 175.7                | 165.5          |
| 2011-12                                                    | 122.7                                  | 181.0                | 170.3          |
| 2012-13                                                    | 127.3                                  | 183.3                | 172.2          |
| 2013-14                                                    | 138.6                                  | 181.9                | 172.0          |
| 2014-2015                                                  | 138.3                                  | 186.1                | 176.9          |

**Table 37: Weights of Products Covered Under Chemical and Chemical Products (Industry Division 24 of NIC-2004)**

| NIC Code | Description of Item             | Weights | NIC Code | Description of Item                       | Weights |
|----------|---------------------------------|---------|----------|-------------------------------------------|---------|
| 24111    | Caustic soda                    | 2.2336  | 24295    | Adhesives                                 | 1.2891  |
| 24111    | Dissolved Acetylene Gas         | 0.0216  | 24295    | Gelatin                                   | 0.4953  |
| 24111    | Liquid chlorine                 | 0.4796  | 24298    | salt, processed                           | 0.5305  |
| 24111    | Oxygen                          | 0.1713  | 24301    | Polyester staple fibre                    | 0.7167  |
| 24111    | Soda ash                        | 1.4539  | 24301    | Viscose Staple Fibre                      | 0.3273  |
| 24112    | Sulphuric Acid, including Oleum | 0.3183  | 24304    | Nylon industrial yarn/tyre cord           | 0.1348  |
| 24112    | Titanium dioxide                | 0.3198  | 24111    | Aniline                                   | 0.2338  |
| 24114    | Dyes                            | 1.3942  | 24112    | Phosphoric Acid                           | 0.2226  |
| 24116    | Acetic acid                     | 0.6127  | 24116    | Acetone                                   | 0.1685  |
| 24116    | Formaldehyde                    | 0.1761  | 24116    | Purified terephthalic acid                | 4.2279  |
| 24116    | Maleic anhydride                | 0.0652  | 24117    | Sodium Hydrosulphate/Sodium Hydrosulphite | 0.056   |
| 24116    | Methanol                        | 0.4553  | 24121    | Ammonia                                   | 0.0634  |
| 24116    | Phenol                          | 0.3558  | 24121    | Ammonia Sulphate(A/S)                     | 0.4186  |
| 24118    | Fatty Acid                      | 0.5217  | 24121    | Calcium Ammonium Nitrate(CAN)             | 0.0586  |
| 24118    | Glycerine                       | 0.0627  | 24124    | Complex grade fertilizers                 | 1.1993  |
| 24123    | Caprolactum                     | 0.8176  | 24131    | Poly butadiene rubber                     | 0.1409  |
| 24123    | Urea                            | 6.4322  | 24131    | Styrene butadiene rubber                  | 0.0375  |
| 24124    | Di Ammonium Phosphate (DAP)     | 3.1858  | 24134    | Paraxylene                                | 1.9321  |
| 24124    | Single Super Phosphate (SSP)    | 1.2442  | 24134    | Poly vinyl chloride                       | 1.3808  |
| 24132    | PVC Resins                      | 1.2379  | 24134    | Polypropylene ( including co-polymer)     | 3.0237  |
| 24132    | Synthetic Resins                | 0.9583  | 24139    | ABS Resin                                 | 0.1796  |
| 24134    | Benzene                         | 0.8732  | 24211    | Acephate                                  | 0.6888  |
| 24134    | Ethylene                        | 4.0019  | 24211    | Atrazin                                   | 0.0026  |
| 24134    | High density polyethylene       | 1.8377  | 24211    | Carbendzim(Bavistin)                      | 0.0619  |
| 24134    | Linear low density polyethylene | 1.1488  | 24211    | Chlorpyrifos                              | 0.3881  |
| 24134    | Mono ethylene glycol            | 1.1662  | 24211    | Cypermethrin                              | 0.6158  |
| 24134    | Polystyrene                     | 0.6733  | 24211    | Di ethyl ester technical( 2, 4-D)         | 0.0062  |
| 24134    | Synthetic Rubber                | 0.2259  | 24211    | Fenvalerate                               | 0.0379  |
| 24211    | Endosulphan                     | 0.1948  | 24211    | Mancozab                                  | 0.9176  |
| 24211    | Monocrotophos                   | 0.6913  | 24211    | Quinalphos                                | 0.0523  |
| 24219    | Rubber Chemical                 | 0.4916  | 24211    | Triazophos                                | 0.2521  |
| 24222    | Paints of all kinds             | 2.2465  | 24223    | Printing Ink                              | 0.807   |
| 24224    | Phthalic anhydride              | 0.5494  | 24233    | Ayurvedic Medicaments                     | 2.6967  |
| 24232    | Antibiotics & it's preparations | 23.8392 | 24243    | Ethylene oxide                            | 0.3296  |
| 24232    | Vitamins                        | 3.0131  | 24243    | Whitening Agents                          | 0.0918  |
| 24241    | Synthetic Detergents            | 1.8398  | 24246    | Hair Shampoo                              | 0.2925  |
| 24241    | Toilet Soap                     | 1.9112  | 24295    | Empty Capsules                            | 0.4887  |
| 24241    | Washing Soap                    | 0.6664  | 24297    | Guar Gum Splits                           | 0.631   |
| 24243    | Linear alkyl benzene            | 1.7213  | 24297    | Leather Finishing Chemicals & Auxiliaries | 0.2863  |
| 24245    | Tooth Powder                    | 0.0197  | 24299    | Acrylonitrile                             | 0.3125  |
| 24246    | Tooth Paste                     | 0.6499  | 24299    | Butadiene                                 | 0.8738  |
| 24247    | Hair Oil                        | 0.2495  | 24303    | Acrylic fibre                             | 0.209   |
| 24248    | Agarbattis and Dhoop            | 0.4106  | 24304    | Nylon filament yarn                       | 0.0709  |
| 24291    | Safety Matches                  | 0.7892  | 24304    | Polyester filament yarn                   | 1.19    |
| 24292    | Explosives                      | 0.7204  |          |                                           |         |

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## *Section – VII*

# *Inflation Wholesale Price Index*

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**Table -38 : Annual Inflation of Chemicals & Chemical products vis-à-vis other commodities during 2005-06 to 2014-15 ( Based on Wholesale Price Index)**

| <b>Year</b>                                      | <b>All Commodities</b> | <b>Food Articles</b> | <b>Manufactured Products</b> | <b>Chemicals &amp; Chemical Products</b> |
|--------------------------------------------------|------------------------|----------------------|------------------------------|------------------------------------------|
| <b>Weight</b>                                    | 100                    | 14.34                | 64.97                        | 12.02                                    |
| <b>Inflation(%)</b>                              |                        |                      |                              |                                          |
| <b>2005-2006</b>                                 | 4.47                   | 5.38                 | 2.42                         | 3.79                                     |
| <b>2006-2007</b>                                 | 6.59                   | 9.62                 | 5.66                         | 4.96                                     |
| <b>2007-2008</b>                                 | 4.74                   | 6.97                 | 4.78                         | 3.57                                     |
| <b>2008-2009</b>                                 | 8.05                   | 9.09                 | 6.16                         | 4.64                                     |
| <b>2009-2010</b>                                 | 3.80                   | 15.27                | 2.22                         | -0.26                                    |
| <b>2010-2011</b>                                 | 9.56                   | 15.60                | 5.70                         | 5.33                                     |
| <b>2011-2012</b>                                 | 8.94                   | 7.30                 | 7.26                         | 8.61                                     |
| <b>2012-2013</b>                                 | 7.36                   | 9.90                 | 5.41                         | 6.62                                     |
| <b>2013-2014</b>                                 | 5.98                   | 12.76                | 2.99                         | 3.63                                     |
| <b>2014-2015</b>                                 | 2.00                   | 6.08                 | 2.42                         | 2.64                                     |
| <b>Wholesale Price Index(Base : 2004-05=100)</b> |                        |                      |                              |                                          |
| <b>2005-2006</b>                                 | 104.47                 | 105.38               | 102.42                       | 103.79                                   |
| <b>2006-2007</b>                                 | 111.35                 | 115.52               | 108.22                       | 108.94                                   |
| <b>2007-2008</b>                                 | 116.63                 | 123.57               | 113.39                       | 112.83                                   |
| <b>2008-2009</b>                                 | 126.02                 | 134.8                | 120.38                       | 118.07                                   |
| <b>2009-2010</b>                                 | 130.81                 | 155.39               | 123.05                       | 117.76                                   |
| <b>2010-2011</b>                                 | 143.32                 | 179.63               | 130.07                       | 124.04                                   |
| <b>2011-2012</b>                                 | 156.13                 | 192.74               | 139.51                       | 134.72                                   |
| <b>2012-2013</b>                                 | 167.62                 | 211.82               | 147.06                       | 143.64                                   |
| <b>2013-2014</b>                                 | 177.64                 | 238.85               | 151.46                       | 148.85                                   |
| <b>2014-2015</b>                                 | 181.19                 | 253.38               | 155.12                       | 152.78                                   |

**Table 39: Monthly Inflation of Chemicals & Chemical Products vis-a-vis Other Commodities during April 14 to March 15 (Based on Wholesale Price Index)**

| <b>Month</b>                                      | <b>All Commodities</b> | <b>Food Articles</b> | <b>Manufactured Products</b> | <b>Chemicals &amp; Chemical Products</b> |
|---------------------------------------------------|------------------------|----------------------|------------------------------|------------------------------------------|
| Apr.14                                            | 0.66                   | 2.34                 | 0.32                         | -0.07                                    |
| Mai.14                                            | 0.55                   | 2.25                 | 0.19                         | 0.13                                     |
| Jun.14                                            | 1.09                   | 3.44                 | 0.39                         | 0.46                                     |
| Jul.14                                            | 0.49                   | 2.55                 | 0.06                         | 0.06                                     |
| Aug.14                                            | -0.48                  | -1.17                | -0.06                        | -0.32                                    |
| Sep.14                                            | -0.70                  | -1.37                | -0.06                        | -0.13                                    |
| Okt.14                                            | -1.36                  | -0.39                | -0.45                        | -0.13                                    |
| Nov.14                                            | -1.38                  | -2.14                | -0.32                        | -0.52                                    |
| Dez.14                                            | -0.78                  | 0.12                 | -0.13                        | -0.59                                    |
| Jän.15                                            | -0.96                  | -0.67                | -0.32                        | -0.59                                    |
| Feb.15                                            | 0.28                   | -0.56                | -0.06                        | 0.20                                     |
| Mär.15                                            | -100.00                | -100.00              | -100.00                      | -100.00                                  |
| <b>Whole Sale Price Index (Base: 2004-05=100)</b> |                        |                      |                              |                                          |
| Apr.14                                            | 180.80                 | 239.00               | 154.60                       | 153.20                                   |
| Mai.14                                            | 182.00                 | 244.60               | 155.10                       | 153.10                                   |
| Jun.14                                            | 183.00                 | 250.10               | 155.40                       | 153.30                                   |
| Jul.14                                            | 185.00                 | 258.70               | 156.00                       | 154.00                                   |
| Aug.14                                            | 185.90                 | 265.30               | 156.10                       | 154.10                                   |
| Sep.14                                            | 185.00                 | 262.20               | 156.00                       | 153.60                                   |
| Okt.14                                            | 183.70                 | 258.60               | 155.90                       | 153.40                                   |
| Nov.14                                            | 181.20                 | 257.60               | 155.20                       | 153.20                                   |
| Dez.14                                            | 178.70                 | 252.10               | 154.70                       | 152.40                                   |
| Jän.15                                            | 177.30                 | 252.40               | 154.50                       | 151.50                                   |
| Feb.15                                            | 175.60                 | 250.70               | 154.00                       | 150.60                                   |
| Mär.15                                            | 176.10                 | 249.30               | 153.90                       | 150.90                                   |

**Table 40: WPI of Chemicals & Chemical Products (Group Wise) during 2005-06 to 2014-15**

| DESCRIPTION                                          | WEIGHT | 2005-<br>2006 | 2006-<br>2007 | 2007-<br>2008 | 2008-<br>2009 | 2009-<br>2010 | 2010-<br>2011 | 2011-<br>2012 | 2012-<br>2013 | 2013-<br>2014 | 2014-<br>2015 |
|------------------------------------------------------|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| <b>CHEMICALS &amp;<br/>CHEMICAL PRODUCTS</b>         | 12.0   | 103.8         | 108.9         | 112.8         | 118.1         | 117.8         | 124.0         | 134.7         | 143.6         | 148.9         | 152.8         |
| <b>BASIC INORGANIC<br/>CHEMICALS</b>                 | 1.2    | 106.4         | 109.5         | 117.1         | 126.2         | 125.0         | 126.3         | 138.2         | 147.8         | 150.6         | 156.1         |
| <b>BASIC ORGANIC<br/>CHEMICALS</b>                   | 2.0    | 103.6         | 111.0         | 112.0         | 118.0         | 115.7         | 124.4         | 135.0         | 140.3         | 147.5         | 150.9         |
| <b>FERTILIZERS</b>                                   | 2.7    | 102.2         | 104.4         | 106.3         | 106.8         | 108.2         | 116.8         | 132.6         | 149.0         | 152.3         | 154.9         |
| <b>PESTICIDES</b>                                    | 0.5    | 102.2         | 108.4         | 106.7         | 110.5         | 110.6         | 113.6         | 114.9         | 121.2         | 125.9         | 152.0         |
| <b>PAINTS, VARNISHES &amp;<br/>LACQUERS</b>          | 0.5    | 104.3         | 105.7         | 110.6         | 117.6         | 117.5         | 122.6         | 128.5         | 143.6         | 147.6         | 149.9         |
| <b>DYESTUFFS &amp; INDIGO</b>                        | 0.6    | 102.3         | 110.6         | 115.0         | 115.5         | 111.9         | 116.3         | 122.5         | 126.9         | 132.6         | 144.8         |
| <b>DRUGS &amp; MEDICINES</b>                         | 0.5    | 101.3         | 102.6         | 108.1         | 111.4         | 112.7         | 115.4         | 119.6         | 124.2         | 126.8         | 129.3         |
| <b>PERFUMES, COSMETICS,<br/>TOILETRIES ETC</b>       | 1.1    | 104.5         | 111.1         | 119.1         | 129.2         | 134.8         | 138.5         | 145.3         | 151.9         | 157.3         | 160.7         |
| <b>TURPENTINE, PLASTIC<br/>CHEMICALS</b>             | 0.6    | 109.6         | 115.2         | 115.3         | 116.9         | 117.4         | 123.4         | 136.1         | 140.0         | 147.6         | 156.4         |
| <b>POLYMERS INCLUDING<br/>SYNTHETIC RUBBER</b>       | 1.0    | 103.0         | 108.8         | 115.5         | 119.6         | 116.3         | 123.4         | 130.4         | 135.3         | 142.8         | 152.3         |
| <b>PETROCHEMICAL<br/>INTERMEDIATES</b>               | 0.9    | 105.1         | 116.6         | 121.0         | 133.5         | 127.7         | 137.4         | 156.2         | 164.2         | 170.4         | 162.0         |
| <b>MATCHES, EXPLOSIVES<br/>&amp; OTHER CHEMICALS</b> | 0.6    | 102.7         | 107.1         | 114.4         | 121.6         | 123.8         | 128.7         | 135.5         | 142.6         | 149.8         | 153.5         |

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## *Section – VIII*

# *Miscellaneous*

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**Table 41 : Selected Indicators of the Indian Economy**

| S.No. | Indicator                               | Unit/base     | 2011-12 | 2012-13 | 2013-14 | 2014-15  |
|-------|-----------------------------------------|---------------|---------|---------|---------|----------|
| 1     | Human Population (mid FY)               | Million       | 1220    | 1235    | 1251    | 1267     |
| 2     | GDP                                     |               |         |         |         |          |
|       | (i) At current prices                   | Rs.'000 crore | 8832    | 9989    | 11345   | 12541    |
|       | (ii) At 2011-12 prices                  | Rs.'000 crore | 8832    | 9281    | 9921    | 10644    |
|       | at 2011-12 prices                       | Growth (%)    |         | 5.1     | 6.9     | 7.3      |
| 3     | GVA at basic prices                     |               |         |         |         |          |
|       | (i) At current prices                   | Rs.'000 crore | 8196    | 9252    | 10477   | 11550    |
|       | (ii) At 2011-12 prices                  | Rs.'000 crore | 8196    | 8599    | 9170    | 9827     |
| 4     | GVA at basic prices (at 2011-12 prices) | Growth (%)    |         | 4.9     | 6.6     | 7.2      |
| 5     | Per capita Net National Income          |               |         |         |         |          |
|       | (i) At current prices                   | Rupees        | 64316   | 71593   | 80388   | 87748    |
|       | (ii) At 2011-12 prices                  | Rupees        | 64316   | 66344   | 69959   | 74104    |
| 6     | Gross Saving to GNDI                    | Growth (%)    | 33.0    | 31.1    | 30.0    |          |
| 7     | current prices                          | %             | 38.2    | 36.6    | 32.3    |          |
| 8     | Index of Industrial Production          | Growth (%)    | 2.9     | 1.1     | -0.1    | 2.8      |
| 9     | <b>Foreign Trade</b>                    |               |         |         |         |          |
|       | (i) Exports                             | \$ billion    | 306.0   | 300.4   | 314.4   | 310.5    |
|       | (ii) Imports                            | \$ billion    | 489.3   | 490.7   | 450.1   | 447.5    |
|       | (iii) Trade Balance                     | \$ billion    | -183.4  | -190.3  | -135.8  | -137.0   |
| 10    | Foreign Exchange Reserves(End of FY)    | \$ billion    | 294.4   | 292.0   | 304.2   | 341.6    |
| 11    | Foreign Exchange Rate                   | Rs./US\$      | 47.9    | 54.4    | 60.5    | 61.1     |
| 12    | Foreign Institutional Investment        | Rs.Crore      | 93726   | 168367  | 51649   | 277461   |
| 13    | Fiscal Deficit (Central Government)     | Rs. Crore     | 515990  | 490596  | 508149  | 531177   |
|       |                                         | % of GDP      | 5.8     | 4.9     | 4.5     | 4.2      |
| 14    | WPI(Average of 12 months)               | Inflation (%) | 8.9     | 7.4     | 6.0     | 2.0      |
| 15    | Agricultural Production (Food grain)    | MMT           | 259.3   | 257.1   | 267.6   | 251.1    |
|       |                                         |               |         |         |         | (3rd AE) |
| 16    | <b>Consumer Price Index</b>             |               |         |         |         |          |
|       | Industrial Workers                      | 2001=100      | 195     | 215     | 236     | 251      |
|       | Agricultural Labourers                  | 1986-87=100   | 611     | 672     | 750     | 800      |
|       | Rural Labourers                         | 1986-87=100   | 611     | 673     | 751     | 802      |
| 17    | Electricity Generated (Gross)           |               |         |         |         |          |
|       | <b>Utilities</b>                        |               |         |         |         |          |
|       | Hydro                                   | Billion Kwh   | 131     | 114     | 135     | 100      |
|       | Thermal+R.E.S.                          | Billion Kwh   | 759     | 818     | 846     | 619      |
|       | Nuclear                                 | Billion Kwh   | 33      | 33      | 34      | 22       |
|       | Total                                   | Billion Kwh   | 923     | 965     | 1015    | 741      |
|       | <b>Non-Utilites</b>                     | Billion Kwh   | 128     | 144     | 151.2   | 105      |
|       | <b>Grand total</b>                      | Billion Kwh   | 1051    | 1109    | 1166    | 846.4(P) |

Source: Economic Survey 2014-15, Central Statistics Office, Ministry of Staistics & PI and office of Economic Adviser, Ministry of Commerce & Industry

3rd AE: 3rd Advanced Estimate P: Provisional (generation data up to 30.11.2014 except for RES which is up to October 2014)

**Table - 42: Growth Rates of Core Industries (%)**

| Sector               | Weight | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15 | Apr-Sep<br>2014-15 | Apr-Sep<br>2015-16 |
|----------------------|--------|---------|---------|---------|---------|---------|--------------------|--------------------|
| Coal                 | 4.379  | -0.2    | 1.3     | 4.6     | 1.3     | 8.4     | 7.7                | 4.2                |
| Crude Oil            | 5.216  | 11.9    | 1       | -0.6    | -0.2    | -0.9    | -1.2               | 0.4                |
| Natural Gas          | 1.708  | 10      | -8.9    | -14.5   | -13     | -5.1    | -5.8               | -2.1               |
| Refinery Products    | 5.939  | 3       | 3.1     | 29      | 1.5     | 0.3     | -2.7               | 3.6                |
| Fertilizers          | 1.254  | 0       | 0.4     | -3.4    | 1.5     | -0.1    | 0                  | 8                  |
| Steel                | 6.684  | 13.2    | 10.3    | 4.1     | 11.5    | 2.6     | 6.6                | -0.4               |
| Cement               | 2.406  | 4.5     | 6.7     | 7.7     | 3.1     | 5.6     | 9.7                | 1.3                |
| Electricity          | 10.316 | 5.6     | 8.1     | 4       | 6       | 8.2     | 10.4               | 4.1                |
| <b>Overall Index</b> | 37.903 | 6.6     | 5       | 6.5     | 4.2     | 4       | 5.1                | 2.3                |

#Refinery Products' yearly growth rate of 2012-13 is not comparable with other years on account of inclusion of RIL (SEZ) production data since April, 2012.

**Table-43: Consumption of Naptha, Natural Gas and Fuel oil during 2008-09 to 2014-15**

| Name of Product       | Description             | Unit     | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 | 2014-15* |
|-----------------------|-------------------------|----------|---------|---------|---------|---------|---------|---------|----------|
| <b>Naphtha</b>        | Production              | K Tonnes | 16452   | 18788   | 19196   | 18825   | 19018   | 18505   | 17391    |
|                       | Import                  | K Tonnes | 5023    | 1734    | 2063    | 2091    | 1735    | 1026    | 858      |
|                       | Export                  | K Tonnes | 7601    | 10043   | 10655   | 10139   | 8647    | 8322    | 7008     |
|                       | Availability            | K Tonnes | 13874   | 10479   | 10603   | 10777   | 12107   | 11210   | 11240    |
|                       | Consumption             | K Tonnes | 13911   | 10134   | 10676   | 11222   | 12289   | 11305   | 10939    |
| <b>Natural Gas</b>    | Production              | MM SCM   | 32845   | 47496   | 52219   | 47559   | 40679   | 35407   | 33656    |
|                       | Import                  | MMSCM    | 11952   | 12092   | 13077   | 17465   | 17371   | 17247   | 19520    |
|                       | Availability            | MMSCM    | 44797   | 59588   | 65296   | 65024   | 58050   | 52654   | 53176    |
|                       | Consumption **          | MMSCM    | 34524   | 48344   | 52019   | 60684   | 53915   | 48994   | 46955    |
| <b>Fuel Oil</b>       | Production              | K Tonnes | 17684   | 18346   | 20519   | 18433   | 15054   | 13405   | 11919    |
|                       | Import                  | K Tonnes | 2760    | 896     | 1013    | 1203    | 1068    | 1283    | 945      |
|                       | Export                  | K Tonnes | 6207    | 5 186   | 6734    | 7895    | 5922    | 6159    | 4762     |
|                       | Availability            | K Tonnes | 14237   | 14056   | 14798   | 11740   | 10200   | 8529    | 8102     |
|                       | Consumption             | K Tonnes | 12588   | 11629   | 10789   | 9307    | 7656    | 6236    | 6017     |
| <b>Naphtha</b>        | Fertilizers Sector      | K Tonnes | 1803    | 844     | 892     | 962     | 898     | 516     | 301      |
|                       | Petrochemical Sector    | K Tonnes | 5889    | 6968    | 7500    | 8141    | 9412    | 9464    | 9517     |
| <b>Natural Gas **</b> | Fertilizer Industries   | MM SCM   | 9082    | 13168   | 11464   | 14003   | 14733   | 15869   | 15190    |
|                       | Petrochemicals Industry | MMSCM    | 1105    | 1264    | 1309    | 1858    | 2486    | 2405    | 2890     |
| <b>Fuel Oil</b>       | Chemicals & allied      | K Tonnes | 411     | 393     | 333     | 299     | 228     | 204     | 212      |

\*Provisional                \*\*Inclusion of consumption of LNG in 2011-12 & onwards.

Note: The reasons for the variation between the consolidated availability and the consumption can be attributed to stock changes, conversion factor (volume/energy), Flaring(in case of Natural gas) and the provisional data reported by the companies.

Source: Ministry of Petroleum & Natural Gas

**Table 44: Persons in workforce (according to usual status) in 2011-12**

| Description                                               | Unit      | Rural |        |         | Urban |        |         | Rural + Urban |
|-----------------------------------------------------------|-----------|-------|--------|---------|-------|--------|---------|---------------|
|                                                           |           | Male  | Female | Persons | Male  | Female | Persons | Persons       |
| Projected population                                      | million   | 431.7 | 409.8  | 841.5   | 199.8 | 186.1  | 385.9   | 1227.4        |
| Persons in the work force in all sectors                  | lakh      | 2346  | 1018   | 3364    | 1092  | 273    | 1365    | 4729          |
| Persons in the work force in all sectors                  | per 10000 | 5434  | 2484   | 3998    | 5465  | 1467   | 3537    | 3853          |
| Persons in work force in Industry Division 20 of NIC 2008 | per 10000 | 16    | 15     | 15      | 51    | 54     | 52      | 25            |
| Persons in work force in Industry Division 21 of NIC 2008 | per 10000 | 7     | 2      | 5       | 53    | 24     | 47      | 17            |
| Persons in work force in Industry Division 20 of NIC 2008 | lakh      | 3.8   | 1.5    | 5.3     | 5.6   | 1.5    | 7.0     | 12.3          |
| Persons in work force in Industry Division 21 of NIC 2008 | lakh      | 1.6   | 0.2    | 1.8     | 5.8   | 0.7    | 6.4     | 8.3           |
| Persons in work force in Division 20 and 21 of NIC 2008   | lakh      | 5.4   | 1.7    | 7.1     | 11.4  | 2.1    | 13.5    | 20.6          |

Note: The industry division 24 of NIC 2004 is equivalent of industry division 20 (manufacture of chemical & chemical products), 21(manufacture of pharmaceuticals, medicinal chemicals and botanical products) and 268 (manufacture of magnetic and optical media) of NIC 2008.

Source:Key Indicators of Employment and Unemployment in India, NSS 68th Round (July 2011- June 2012), NSSO

**Table-45 : Production of Molasses in India during 2006-07 to 2013-14**

(Figure in Lakh MT)

| States/UT             | Production of Molasses |         |         |         |         |         |         |         |
|-----------------------|------------------------|---------|---------|---------|---------|---------|---------|---------|
|                       | 2006-07                | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 | 2013-14 |
| <b>Andhra Pradesh</b> | 7.76                   | 6.61    | 2.69    | 3.2     | 3.56    | 4.97    | 4.32    | 3.23    |
| <b>Bihar</b>          | 1.09                   | 1.26    | 0.82    | 0.76    | 1.06    | 1.20    | 2.93    | 3.14    |
| <b>Gujarat</b>        | 5.34                   | 5.75    | 5.26    | 5.08    | 4.98    | 5.91    | 4.20    | 2.21    |
| <b>Haryana</b>        | 6.00                   | 6.32    | 6.78    | 5.11    | 7.17    | 7.40    | 8.65    | 7.55    |
| <b>Karnataka</b>      | 9.12                   | 12.73   | 10.18   | 9.65    | 13.41   | 14.77   | 14.79   | 17.25   |
| <b>Maharashtra</b>    | 32.06                  | 28.88   | 15.56   | 24.89   | 32.64   | 30.88   | 26.64   | 25.85   |
| <b>Punjab</b>         | 1.90                   | 1.85    | 1.38    | 0.72    | 1.39    | 2.25    | 2.37    | 3.08    |
| <b>Tamil Nadu</b>     | 12.88                  | 10.50   | 7.79    | 7.50    | 9.99    | 11.85   | 10.39   | 7.44    |
| <b>Uttar Pradesh</b>  | 46.86                  | 37.41   | 22.59   | 29.14   | 32.83   | 38.88   | 42.46   | 35.35   |
| <b>Uttarakhand</b>    | 2.67                   | 2.63    | 1.48    | 1.80    | 1.86    | 2.29    | 1.68    | 16.93   |
| <b>Telagana</b>       | New State              |         |         |         |         |         |         | 1.31    |
| <b>Total</b>          | 125.68                 | 113.94  | 74.53   | 87.85   | 108.89  | 120.40  | 118.43  | 123.34  |

Source: Compiled on the basis of information received from State Excise Departments of 11 major Sugarcane producing States.

**Table-46 : State-wise/Year-wise Production of Alcohol from Molasses in India during 2006-07 to 2013-14**

(Figure in Lakh litre)

| States/UT             | Production of Alcohol |          |          |          |          |          |          |          |
|-----------------------|-----------------------|----------|----------|----------|----------|----------|----------|----------|
|                       | 2006-07               | 2007-08  | 2008-09  | 2009-10  | 2010-11  | 2011-12  | 2012-13  | 2013-14  |
| <b>Andhra Pradesh</b> | 986.70                | 1006.29  | 1459.33  | 739.98   | 507.77   | 1324.06  | 1561.22  | 834.12   |
| <b>Bihar</b>          | 137.40                | 161.31   | 352.01   | 183.14   | 279.66   | 428.16   | 539.22   | 666.63   |
| <b>Gujarat</b>        | 1077.52               | 792.20   | 849.03   | 510.22   | 686.44   | 1084.43  | 839.88   | 629.84   |
| <b>Haryana</b>        | 382.25                | 510.23   | 112.98   | 64.17    | 162.05   | 175.43   | 196.32   | 214.10   |
| <b>Karnataka</b>      | 1804.27               | 2162.08  | 2403.14  | 2154.09  | 2823.53  | 3823.73  | 3656.99  | 3298.51  |
| <b>Maharashtra</b>    | 5136.39               | 5218.95  | 4414.18  | 3368.69  | 3762.65  | 3851.81  | 4685.00  | 3957.53  |
| <b>Punjab</b>         | 1084.43               | 2270.09  | 913.19   | 249.68   | 582.72   | 565.24   | 75.60    | 74.04    |
| <b>Tamil Nadu</b>     | 1913.53               | 1726.44  | 1595.46  | 1700.75  | 2119.43  | 2301.72  | 2288.69  | 1765.52  |
| <b>Uttar Pradesh</b>  | 6710.49               | 9265.22  | 6814.79  | 4516.05  | 6546.59  | 7201.42  | 7916.45  | 8982.70  |
| <b>Uttarakhand</b>    | 1215.84               | 1468.75  | 866.99   | 495.48   | 297.72   | 923.41   | 974.20   | 945.30   |
| <b>Telagana</b>       | New State             |          |          |          |          |          |          | 22.65    |
| <b>Total</b>          | 20448.82              | 24581.56 | 19781.10 | 13982.25 | 17768.56 | 21679.41 | 22733.57 | 21390.94 |

Source: Compiled on the basis of information received from State Excise Departments of 11 major Sugarcane producing States.

**Table-47 :Export and Import of Ethanol ( ITC HS code no. 22072000) during 2005-06 to 2014-15**

(Quantity in thousnd Litres & Value in Rs. Lakh)

| Year           | Export   |       |                    | Import   |       |                    |
|----------------|----------|-------|--------------------|----------|-------|--------------------|
|                | Quantity | Value | Price<br>(Rs./LTR) | Quantity | Value | Price<br>(Rs./LTR) |
| <b>2005-06</b> | 37288    | 7992  | 21.43              | 310768   | 61127 | 19.67              |
| <b>2006-07</b> | 10083    | 2516  | 24.95              | 39239    | 10788 | 27.49              |
| <b>2007-08</b> | 13540    | 4147  | 30.63              | 5042     | 2771  | 54.96              |
| <b>2008-09</b> | 4424     | 1548  | 35.00              | 71543    | 25660 | 35.87              |
| <b>2009-10</b> | 4270     | 1684  | 39.43              | 278957   | 67535 | 24.21              |
| <b>2010-11</b> | 18872    | 6049  | 32.05              | 105982   | 34533 | 32.58              |
| <b>2011-12</b> | 30974    | 12729 | 41.10              | 53936    | 26983 | 50.03              |
| <b>2012-13</b> | 19613    | 8613  | 43.91              | 4606     | 2650  | 57.53              |
| <b>2013-14</b> | 22520    | 10748 | 47.72              | 59816    | 36935 | 61.75              |
| <b>2014-15</b> | 12286    | 6843  | 55.69              | 114506   | 59712 | 52.15              |

**Table -48 : Employment in Chemicals and Chemicals products ( Industry division 24, NIC 2004) during 2002-03 to 2012-13**

| S. No. | Industry                                                           | Number of Person Engaged |         |         |         |          |          |          |          |          |          |          |
|--------|--------------------------------------------------------------------|--------------------------|---------|---------|---------|----------|----------|----------|----------|----------|----------|----------|
|        |                                                                    | 2002-03                  | 2003-04 | 2004-05 | 2005-06 | 2006-07  | 2007-08  | 2008-09  | 2009-10  | 2010-11  | 2011-12  | 2012-13  |
| 1      | Chemicals and Chemicals products ( Industry division 24, NIC 2004) | 755113                   | 740441  | 784907  | 825435  | 877083   | 892944   | 961306   | 1005167  | 1100320  | 1223243  | 1165914  |
| 2      | Industries Other than Chemicals and Chemicals products             | 7180835                  | 7129640 | 7668717 | 8286245 | 9451351  | 9559591  | 10366179 | 10786888 | 11594533 | 12206713 | 11784111 |
| 3      | All Industries                                                     | 7935948                  | 7870081 | 8453624 | 9111680 | 10328434 | 10452535 | 11327485 | 11792055 | 12694853 | 13429956 | 12950025 |
| 4      | <b>Share in Employment (%)</b>                                     |                          |         |         |         |          |          |          |          |          |          |          |
|        | (a) Share of Chemicals and Chemicals products                      | 9.52                     | 9.41    | 9.28    | 9.06    | 8.49     | 8.54     | 8.49     | 8.52     | 8.67     | 9.11     | 9.00     |
|        | (b) Share of Other than Chemicals and Chemicals products           | 90.48                    | 90.59   | 90.72   | 90.94   | 91.51    | 91.46    | 91.51    | 91.48    | 91.33    | 90.89    | 91.00    |
| 5      | <b>Growth Rate in Employment (%)</b>                               |                          |         |         |         |          |          |          |          |          |          |          |
|        | (a) Chemicals and Chemicals products                               | -0.81                    | -1.94   | 6.01    | 5.16    | 6.26     | 1.81     | 7.66     | 4.56     | 9.47     | 11.17    | -4.69    |
|        | (b) Industries Other Than Chemicals and Chemicals products         | 2.74                     | -0.71   | 7.56    | 8.05    | 14.06    | 1.15     | 8.44     | 4.06     | 7.49     | 5.28     | -3.46    |
|        | (c) All Industries                                                 | 2.39                     | -0.83   | 7.41    | 7.78    | 13.35    | 1.20     | 8.37     | 4.10     | 7.66     | 5.79     | -3.57    |

Note: 1. The description of product groups at 4-digit level under the division 24, NIC 2004 is given at page-3.

2. Figures for total person engaged for the period from 2008-09 to 2010-11 has been compiled by adding figures in respect of Industry Division 20, 21 and 268 of NIC 2008

Source : Annual Survey of Industries (Factory Sector), Ministry of Statistics & Programme Implementation, New Delhi.

**Table -49 : Employment in Chemicals and Chemicals products (Industry Division 20, NIC-2008) during 2009-10 to 2012-13**

| S.No. | Industry                                                             | Number of Person Engaged |          |          |          |
|-------|----------------------------------------------------------------------|--------------------------|----------|----------|----------|
|       |                                                                      | 2009-10                  | 2010-11  | 2011-12  | 2012-13  |
| 1     | Chemicals and Chemicals products<br>(Industry Division 20, NIC 2008) | 588669                   | 630017   | 674018   | 633659   |
| 2     | Industries Other than Chemicals and<br>Chemicals products            | 11203386                 | 12064836 | 12755938 | 12316366 |
| 3     | All Industries                                                       | 11792055                 | 12694853 | 13429956 | 12950025 |
| 4     | <b>Share in Employment (%)</b>                                       |                          |          |          |          |
|       | (a) Share of Chemicals and<br>Chemicals products                     | 4.99                     | 4.96     | 5.02     | 4.89     |
|       | (b) Share of Other than C&PC                                         | 95.01                    | 95.04    | 94.98    | 95.11    |
| 5     | <b>Growth Rate in Employment (%)</b>                                 |                          |          |          |          |
|       | (a) Chemicals and Chemicals<br>products                              | 1.31                     | 7.02     | 6.98     | -5.99    |
|       | (b) Industries Other Than Chemicals<br>and Chemicals products        | 4.25                     | 7.69     | 5.73     | -3.45    |
|       | (c) All Industries                                                   | 4.10                     | 7.66     | 5.79     | -3.57    |

Note: As per NIC- 2008, Chemical & Chemical products are covered under the industry division 20. The description of product groups at 4-digit level under the division 20, NIC 2008 is given at page-4.

Source : Annual Survey of Industries (Factory Sector), Ministry of Statistics & Programme Implementation, New Delhi.

**Table-50: Gross Value Added from Chemical and Chemical products (Industry Division 20:NIC 2008) and Pharmaceutical; medicinal chemicals and botanical product (Industry Division 21: NIC 2008)vis-a-vis Manufacturing sector and all Economic Activities**

At Current Prices  
(Rs. Crore)

| Description                                                                                                                                              | 2011-12 | 2012-13 | 2013-14  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|----------|
| Chemical and chemical products (Corporate)                                                                                                               | 134782  | 129196  | 144570   |
| Chemical and chemical products (Household)                                                                                                               | 995     | 885     | 999      |
| Chemical and chemical products (Corporate +Household)                                                                                                    | 135777  | 130081  | 145569   |
| Growth over previous year (%)                                                                                                                            |         | -4.2    | 11.9     |
| Pharmaceutical; medicinal chemicals and botanical products -- Corporate                                                                                  | 85099   | 91305   | 102739   |
| Pharmaceutical; medicinal chemicals and botanical products -- Household                                                                                  | 764     | 770     | 900      |
| Total Pharmaceutical; medicinal chemicals and botanical products (Industry Division 21)                                                                  | 85863   | 92075   | 103639   |
| Total Chemical and chemical products <b>including</b> Pharmaceutical; medicinal chemicals and botanical products (Industry Division 20 and 21)           | 221640  | 222156  | 249208   |
| Growth over previous year (%)                                                                                                                            |         | 0.2     | 12.2     |
| Manufacturing (Corporate)                                                                                                                                | 1302151 | 1410214 | 1552558  |
| Manufacturing (Household)                                                                                                                                | 180007  | 243871  | 255813   |
| Manufacturing (Corporate +Household)                                                                                                                     | 1482158 | 1654085 | 1808371  |
| Growth over previous year (%)                                                                                                                            |         | 11.6    | 9.3      |
| GVA at basic prices for All Economic activities                                                                                                          | 8195546 | 9252051 | 10477140 |
| Growth over previous year (%)                                                                                                                            |         | 12.9    | 13.2     |
| Share of Manufacturing sector in GVA                                                                                                                     | 18.1    | 17.9    | 17.3     |
| Share of Chemical and chemical products <b>excluding</b> Pharmaceutical; medicinal chemicals and botanical products (Industry Division 20 and 21)in GVA  | 1.66    | 1.40    | 1.38     |
| Share of Chemical and chemical products <b>including</b> Pharmaceutical; medicinal chemicals and botanical products (Industry Division 20 and 21) in GVA | 2.70    | 2.40    | 2.38     |
| Share of chemical and chemical products (Industry Division 20 )in Manufacturing Sector                                                                   | 9.16    | 7.86    | 8.05     |
| Share of chemical and chemical products (Industry Division 20 and 21)in Manufacturing Sector                                                             | 14.95   | 13.43   | 13.78    |

Source: National Accounts Statistics 2015, CSO, Ministry of Statistics & Programme Implementation

**Table-51: Gross Value Added from Chemical and Chemical products (Industry Division 20:NIC 2008) and Pharmaceutical; medicinal chemicals and botanical product (Industry Division 21: NIC 2008)vis-a-vis Manufacturing sector and all Economic Activities**

At Constant Price(2011-12)  
(Rs. Crore)

| Description                                                                                                                                              | 2011-12 | 2012-13 | 2013-14 |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|
| Chemical and chemical products (Corporate)                                                                                                               | 134782  | 121173  | 130846  |
| Chemical and chemical products (Household)                                                                                                               | 995     | 830     | 904     |
| Chemical and chemical products (Corporate +Household)                                                                                                    | 135777  | 122003  | 131750  |
| Growth over previous year (%)                                                                                                                            |         | -10.1   | 8.0     |
| Pharmaceutical; medicinal chemicals and botanical products - Corporate                                                                                   | 85099   | 87924   | 96923   |
| Pharmaceutical; medicinal chemicals and botanical products -- Household                                                                                  | 764     | 742     | 849     |
| Total Pharmaceutical; medicinal chemicals and botanical products (Industry Division 21)                                                                  | 85863   | 88666   | 97772   |
| Total Chemical and chemical products <b>including</b> Pharmaceutical; medicinal chemicals and botanical products (Industry Division 20 and 21)           | 221640  | 210669  | 229522  |
| Growth over previous year (%)                                                                                                                            |         | -4.9    | 8.9     |
| Manufacturing (Corporate)                                                                                                                                | 1302151 | 1342230 | 1424786 |
| Manufacturing (Household)                                                                                                                                | 180007  | 232241  | 233390  |
| Manufacturing (Corporate +Household)                                                                                                                     | 1482158 | 1574471 | 1658176 |
| Growth over previous year (%)                                                                                                                            |         | 6.2     | 5.3     |
| GVA at basic prices for All Economic activities                                                                                                          | 8195546 | 8599224 | 9169787 |
| Growth over previous year (%)                                                                                                                            |         | 4.9     | 6.6     |
| Share of Manufacturing sector in GVA                                                                                                                     | 18.1    | 18.3    | 18.1    |
| Share of Chemical and chemical products <b>excluding</b> Pharmaceutical; medicinal chemicals and botanical products (Industry Division 20 and 21)in GVA  | 1.66    | 1.42    | 1.44    |
| Share of Chemical and chemical products <b>including</b> Pharmaceutical; medicinal chemicals and botanical products (Industry Division 20 and 21) in GVA | 2.70    | 2.45    | 2.50    |
| Share of chemical and chemical products (Industry Division 20 )in Manufacturing Sector                                                                   | 9.16    | 7.75    | 7.95    |
| Share of chemical and chemical products (Industry Division 20 and 21)in Manufacturing Sector                                                             | 14.95   | 13.38   | 13.84   |

Source: National Accounts Statistics 2015, CSO, Ministry of Statistics & Programme Implementation

**Table-52 : Value of Output from Chemicals and Chemical products ( Industry Division 20: NIC 2008) and Pharmaceutical; medicinal chemicals and botanical product (Industry Division 21: NIC 2008) vis-a-vis Manufacturing sector (At Current prices)**

At Current prices  
(Rs. In crore)

| VALUE OF OUTPUT                                                                                                                                | 2011-12 | 2012-13 | 2013-14 |
|------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|
| Manufacturing (Corporate)                                                                                                                      | 6674566 | 6798385 | 7423522 |
| Manufacturing (Household)                                                                                                                      | 543076  | 690721  | 725526  |
| Manufacturing (Corporate +Household)                                                                                                           | 7217642 | 7489106 | 8149048 |
| Chemical and chemical products (Corporate)                                                                                                     | 496659  | 533135  | 590239  |
| Chemical and chemical products (Household)                                                                                                     | 4971    | 4418    | 4987    |
| Total Chemical and chemical products <b>excluding</b> Pharmaceutical; medicinal chemicals and botanical products (Industry Division 20)        | 501630  | 537553  | 595226  |
| Pharmaceutical; medicinal chemicals and botanical products --Corporate                                                                         | 190557  | 215063  | 239738  |
| Pharmaceutical; medicinal chemicals and botanical products --Household                                                                         | 3814    | 3845    | 4496    |
| Total Pharmaceutical; medicinal chemicals and botanical products (Industry Division 21)                                                        | 194371  | 218908  | 244234  |
| Total Chemical and chemical products <b>including</b> Pharmaceutical; medicinal chemicals and botanical products (Industry Division 20 and 21) | 696001  | 756461  | 839460  |

Source: National Accounts Statistics 2015, CSO, Ministry of Statistics & Programme Implementation

**Table-53 : Value of Output from Chemicals and Chemical products ( Industry Division 20: NIC 2008) and Pharmaceutical; medicinal chemicals and botanical product (Industry Division 21: NIC 2008) vis-a-vis Manufacturing sector (At constant prices (2011-12)**

At constant prices (2011-12)  
(Rs. In crore)

| VALUE OF OUTPUT                                                                                                                               | 2011-12 | 2012-13 | 2013-14 |
|-----------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|---------|
| Manufacturing (Corporate)                                                                                                                     | 6674566 | 6432004 | 6728621 |
| Manufacturing (Household)                                                                                                                     | 543076  | 656455  | 661313  |
| Manufacturing (Corporate +Household)                                                                                                          | 7217642 | 7088459 | 7389934 |
| Chemical and chemical products (Corporate)                                                                                                    | 496659  | 500027  | 534209  |
| Chemical and chemical products (Household)                                                                                                    | 4971    | 4144    | 4514    |
| Total Chemical and chemical products excluding<br>Pharmaceutical; medicinal chemicals and botanical<br>products (Industry Division 20)        | 501630  | 504171  | 538723  |
| Pharmaceutical; medicinal chemicals and botanical<br>products --Corporate                                                                     | 190557  | 207101  | 226165  |
| Pharmaceutical; medicinal chemicals and botanical<br>products --Household                                                                     | 3814    | 3703    | 4242    |
| Total Pharmaceutical; medicinal chemicals and botanical<br>products (Industry Division 21)                                                    | 194371  | 210804  | 230407  |
| Total Chemical and chemical products including<br>Pharmaceutical; medicinal chemicals and botanical<br>products (Industry Division 20 and 21) | 696001  | 714975  | 769130  |

Source: National Accounts Statistics 2015, CSO, Ministry of Statistics & Programme Implementation

**Table - 54: All India Estimate of Selected Characteristics of Factory Sector for Industry Division 24: NIC 2004: Chemicals and Chemical products**

| Characteristics               | 2006-07 | 2007-08 | 2008-09 | 2009-10 | 2010-11 | 2011-12 | 2012-13 |
|-------------------------------|---------|---------|---------|---------|---------|---------|---------|
| No of factories (no.)         | 11065   | 11177   | 11896   | 11900   | 15863   | 16118   | 16339   |
| No of workers (no.)           | 593264  | 611022  | 659519  | 691150  | 754902  | 830416  | 792303  |
| Total Output (Rs. crore)      | 275375  | 301218  | 391605  | 391849  | 488052  | 646320  | 666553  |
| Total Inputs (Rs. crore)      | 210287  | 228293  | 300674  | 288479  | 372317  | 480890  | 515019  |
| Gross Value Added (Rs. crore) | 65088   | 72925   | 90931   | 103370  | 115735  | 165430  | 151534  |

Note: The description of product groups at 4-digit level under the division 24, NIC 2004 is given at page-3.

Source: Collated from Annual Survey of Industries, Ministry of Statistics & Programme Implementation

**Table - 55: State wise Estimate of Selected Characteristics of Factory Sector for Industry Division 20: NIC 2008: Chemicals and Chemical Products**

| State            | No. of Factories |         |         |         | GVA (Rs. Lakh) |         |          |         | Total output (Rs. Lakh) |          |          |          |
|------------------|------------------|---------|---------|---------|----------------|---------|----------|---------|-------------------------|----------|----------|----------|
|                  | 2009-10          | 2010-11 | 2011-12 | 2012-13 | 2009-10        | 2010-11 | 2011-12  | 2012-13 | 2009-10                 | 2010-11  | 2011-12  | 2012-13  |
| Andhra Pradesh   | 474              | 822     | 892     | 378     | 225290         | 297251  | 400403   | 260128  | 1265598                 | 2056995  | 2593697  | 1761153  |
| Assam            | 42               | 75      | 72      | 79      | 99263          | 58631   | 110354   | 105575  | 189403                  | 256921   | 315072   | 304291   |
| Bihar            | 30               | 47      | 35      | 43      | 2417           | 1391    | 2525     | 4035    | 22207                   | 6572     | 8714     | 32945    |
| Chhattisgarh     | 81               | 84      | 87      | 96      | 7887           | 9936    | 6759     | 18035   | 64497                   | 58414    | 51128    | 83044    |
| Goa              | 45               | 44      | 51      | 50      | 103716         | 7402    | 74026    | 259201  | 704017                  | 635274   | 985807   | 1098234  |
| Gujarat          | 1518             | 2002    | 2058    | 1974    | 2531866        | 2417220 | 2752199  | 2840257 | 9290846                 | 10765309 | 13256514 | 13890876 |
| Haryana          | 170              | 247     | 220     | 212     | 139327         | 120222  | 88376    | 76494   | 548286                  | 515904   | 617104   | 673573   |
| Himachal Pradesh | 111              | 182     | 188     | 214     | 137995         | 341716  | 230688   | 527844  | 431461                  | 1090580  | 858930   | 1741534  |
| Jammu & Kashmir  | 95               | 134     | 126     | 130     | 89271          | 108621  | 165448   | 156320  | 367013                  | 603313   | 678301   | 648032   |
| Jharkhand        | 111              | 94      | 87      | 95      | 31840          | 33069   | 68908    | 14008   | 96793                   | 142199   | 317488   | 198556   |
| Karnataka        | 407              | 484     | 503     | 467     | 156554         | 237431  | 137609   | 205278  | 593745                  | 997957   | 888872   | 985707   |
| Kerala           | 144              | 202     | 145     | 217     | 111999         | 181163  | 174739   | 106808  | 503161                  | 622249   | 617200   | 632972   |
| Madhya Pradesh   | 221              | 259     | 275     | 250     | 102720         | 87693   | 194443   | 172617  | 408562                  | 539171   | 993733   | 978568   |
| Maharashtra      | 1278             | 1903    | 1809    | 1941    | 1073108        | 1419596 | 1675960  | 1873331 | 4743143                 | 5750230  | 7706704  | 7784602  |
| Meghalaya        | 9                | 6       | 5       | 8       | 3051           | 2851    | 5407     | 3943    | 8687                    | 7680     | 10328    | 6689     |
| Orissa           | 71               | 87      | 79      | 84      | 116835         | 140600  | 87938    | 116561  | 602468                  | 864061   | 1110286  | 1078033  |
| Punjab           | 169              | 184     | 182     | 160     | 109915         | 97023   | 1618002  | 86748   | 672066                  | 590584   | 2267164  | 781526   |
| Rajasthan        | 291              | 308     | 325     | 356     | 206365         | 101501  | 519941   | 387218  | 1107205                 | 1180427  | 2572578  | 3516023  |
| Sikkim           | -                | 5       | 4       | 4       | -              | 12565   | 20074    | 35217   | -                       | 51727    | 73691    | 95775    |
| Tamil Nadu       | 1776             | 2315    | 2398    | 2432    | 276050         | 298864  | 511281   | 411248  | 1431041                 | 1850244  | 3165390  | 2393999  |
| Tripura          | 5                | 6       | 7       | 7       | 72             | 6590    | 197      | 294     | 1022                    | 13445    | 556      | 605      |
| Uttarkhand       | 158              | 195     | 183     | 217     | 179985         | 192206  | 284943   | 347148  | 598592                  | 807472   | 834599   | 1247479  |
| Uttar Pradesh    | 531              | 688     | 678     | 636     | 329614         | 431233  | 548065   | 443090  | 1565327                 | 1898520  | 2469980  | 2658686  |
| West Bengal      | 230              | 307     | 322     | 294     | 162724         | 361775  | 170220   | 49802   | 1228201                 | 2249716  | 2209018  | 2333733  |
| Dadra & N Haveli | 144              | 197     | 192     | 188     | 120046         | 83178   | 91058    | 96072   | 842582                  | 649504   | 676284   | 680746   |
| Daman & Diu      | 146              | 127     | 133     | 154     | 57886          | 80644   | 65051    | 71943   | 318834                  | 544474   | 636930   | 543772   |
| Chandigarh       | 3                | -       | 3       | 4       | 201            | -       | 312      | 304     | 2301                    | -        | 4799     | 4487     |
| Delhi            | 61               | 77      | 79      | 88      | 10117          | 9737    | 19264    | 94368   | 98932                   | 116959   | 207993   | 356089   |
| Puducheery       | 96               | 119     | 137     | 128     | 39107          | 75738   | 98065    | 60541   | 150398                  | 362865   | 290386   | 230776   |
| Telagana         | New State        |         |         | 520     | New State      |         |          | 110508  | New State               |          |          | 554181   |
| All India        | 8418             | 11202   | 11276   | 11426   | 6440369        | 7213220 | 10122362 | 8935034 | 27911458                | 35229032 | 46419406 | 47296827 |

Note: The description of product groups at 4-digit level under the division 20, NIC 2008 is on page-4. \$ figures for 2009-10 to 2011-12 pertain to combined Andhra Pradesh

Source :Annual Survey of Industries (Factory Sector), 2008-09, 2009-2010, 2010-11, 2012-13 and 2013-14 Ministry of Statistics & Programme Implementation

**Table 56 : Exports of Major Chemicals and Petrochemicals as % of Production and Imports of Major Chemicals and Petrochemicals as % of Consumption**

| (In Thouand Tonnes)                             |             |              |              |              |              |              |              |              |              |
|-------------------------------------------------|-------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Group                                           | Description | 2007-08      | 2008-09      | 2009-10      | 2010-11      | 2011-12      | 2012-13      | 2013-14      | 2014-15      |
| <b>Major Chemicals</b>                          | Production  | <b>8380</b>  | <b>8039</b>  | <b>8452</b>  | <b>9108</b>  | <b>9396</b>  | <b>9441</b>  | <b>9628</b>  | <b>9632</b>  |
| <b>Major Petrochemicals</b>                     |             |              |              |              |              |              |              |              |              |
| A. Basic major Petrochemicals                   |             | 9386         | 8991         | 9340         | 10135        | 11008        | 11216        | 11412        | 11594        |
| B. Intermediates                                |             | 11943        | 11325        | 12182        | 12671        | 14683        | 15053        | 15221        | 15791        |
| C. Other Petro-based Chemicals                  |             | 1154         | 1108         | 1679         | 1739         | 1940         | 1979         | 1970         | 1962         |
| <b>Total Major Chemicals and Petrochemicals</b> |             | <b>30863</b> | <b>29462</b> | <b>31653</b> | <b>33652</b> | <b>37027</b> | <b>37689</b> | <b>38231</b> | <b>38980</b> |
| <b>Major Chemicals</b>                          | Exports     | <b>675</b>   | <b>668</b>   | <b>1261</b>  | <b>1337</b>  | <b>1429</b>  | <b>1220</b>  | <b>1221</b>  | <b>1061</b>  |
| <b>Major Petrochemicals</b>                     |             |              |              |              |              |              |              |              |              |
| A. Basic major Petrochemicals                   |             | 1444         | 1104         | 1466         | 1913         | 2304         | 2298         | 2614         | 2253         |
| B. Intermediates                                |             | 1598         | 1323         | 1257         | 1561         | 1677         | 1795         | 1977         | 2034         |
| C. Other Petro-based Chemicals                  |             | 121          | 435          | 65           | 184          | 184          | 137          | 96           | 124          |
| <b>Total Major Chemicals and Petrochemicals</b> |             | <b>3837</b>  | <b>3530</b>  | <b>4050</b>  | <b>4996</b>  | <b>5594</b>  | <b>5451</b>  | <b>5908</b>  | <b>5472</b>  |
| <b>Major Chemicals</b>                          | Imports     | <b>2048</b>  | <b>2514</b>  | <b>2828</b>  | <b>2792</b>  | <b>3397</b>  | <b>4253</b>  | <b>4333</b>  | <b>5025</b>  |
| <b>Major Petrochemicals</b>                     |             |              |              |              |              |              |              |              |              |
| A. Basic major Petrochemicals                   |             | 1773         | 1904         | 2837         | 3338         | 3353         | 4223         | 4295         | 5068         |
| B. Intermediates                                |             | 1079         | 1253         | 1933         | 2396         | 2095         | 2405         | 2950         | 3253         |
| C. Other Petro-based Chemicals                  |             | 1109         | 1141         | 1321         | 1808         | 1785         | 2037         | 2204         | 2373         |
| <b>Total Major Chemicals and Petrochemicals</b> |             | <b>6009</b>  | <b>6812</b>  | <b>8919</b>  | <b>10334</b> | <b>10629</b> | <b>12919</b> | <b>13782</b> | <b>15717</b> |

**Table 56 : Exports of Major Chemicals and Petrochemicals as % of Production and Imports of Major Chemicals and Petrochemicals as % of Consumption**

(In Thouand Tonnes)

| Group                                           | Description                 | 2007-08      | 2008-09      | 2009-10      | 2010-11      | 2011-12      | 2012-13      | 2013-14      | 2014-15      |
|-------------------------------------------------|-----------------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| <b>Major Chemicals</b>                          | Consumption\$               | 9753         | 9885         | 10018        | 10563        | 11364        | 12474        | 12741        | 13596        |
| <b>Major Petrochemicals</b>                     |                             |              |              |              |              |              |              |              |              |
| A. Basic major Petrochemicals                   |                             | 9716         | 9791         | 10711        | 11559        | 12057        | 13141        | 13093        | 14409        |
| B. Intermediates                                |                             | 11425        | 11254        | 12859        | 13506        | 15101        | 15663        | 16194        | 17010        |
| C. Other Petro-based Chemicals                  |                             | 2142         | 1814         | 2935         | 3362         | 3540         | 3879         | 4077         | 4211         |
| <b>Total Major Chemicals and Petrochemicals</b> |                             | <b>33036</b> | <b>32745</b> | <b>36522</b> | <b>38990</b> | <b>42063</b> | <b>45157</b> | <b>46106</b> | <b>49225</b> |
| <b>Major Chemicals</b>                          | Exports as % of Production  | 8.1          | 8.3          | 14.9         | 14.7         | 15.2         | 12.9         | 12.7         | 11.0         |
| <b>Major Petrochemicals</b>                     |                             |              |              |              |              |              |              |              |              |
| A. Basic major Petrochemicals                   |                             | 15.4         | 12.3         | 15.7         | 18.9         | 20.9         | 20.5         | 22.9         | 19.4         |
| B. Intermediates                                |                             | 13.4         | 11.7         | 10.3         | 12.3         | 11.4         | 11.9         | 13.0         | 12.9         |
| C. Other Petro-based Chemicals                  |                             | 10.5         | 39.3         | 3.9          | 10.6         | 9.5          | 6.9          | 4.9          | 6.3          |
| <b>Total Major Chemicals and Petrochemicals</b> |                             | <b>12.4</b>  | <b>12.0</b>  | <b>12.8</b>  | <b>14.8</b>  | <b>15.1</b>  | <b>14.5</b>  | <b>15.5</b>  | <b>14.0</b>  |
| <b>Major Chemicals</b>                          | Imports as % of Consumption | 21.0         | 25.4         | 28.2         | 26.4         | 29.9         | 34.1         | 34.0         | 37.0         |
| <b>Major Petrochemicals</b>                     |                             |              |              |              |              |              |              |              |              |
| A. Basic major Petrochemicals                   |                             | 18.2         | 19.5         | 26.5         | 28.9         | 27.8         | 32.1         | 32.8         | 35.2         |
| B. Intermediates                                |                             | 9.4          | 11.1         | 15.0         | 17.7         | 13.9         | 15.4         | 18.2         | 19.1         |
| C. Other Petro-based Chemicals                  |                             | 51.8         | 62.9         | 45.0         | 53.8         | 50.4         | 52.5         | 54.1         | 56.3         |
| <b>Total Major Chemicals and Petrochemicals</b> |                             | <b>18.2</b>  | <b>20.8</b>  | <b>24.4</b>  | <b>26.5</b>  | <b>25.3</b>  | <b>28.6</b>  | <b>29.9</b>  | <b>31.9</b>  |

Note: Product coverage under each group is given at page vii and viii. \$ Derived consumption as Production+ Imports-Exports

**Table 57: Exports of all Chemicals as % of Value of output and Imports of all Chemicals as % of Consumption**

(Rs. In Crore)

| Item                                                                         | Code                                         | 2011-12 | 2012-13 | 2013-14 |
|------------------------------------------------------------------------------|----------------------------------------------|---------|---------|---------|
| Exports of Pharmaceutical products                                           | HS code 30                                   | 40817   | 54774   | 67404   |
| Exports of Fertilizers                                                       | HS code 31                                   | 397     | 480     | 492     |
| Exports of all Chemicals (including Pharmaceutical products and Fertilizers) | HS codes 28,29,30,31,32,38,39,4002,54 and 55 | 177046  | 206653  | 246463  |
| Imports of Pharmaceutical products                                           | HS code 30                                   | 8131    | 9522    | 9371    |
| Imports of Fertilizers                                                       | HS code 31                                   | 44996   | 40412   | 32639   |
| Imports of Chemicals and Chemical products                                   | HS codes 28,29,30,31,32,38,39,4002,54 and 55 | 229546  | 259844  | 283322  |
| Value of Output of Chemicals and Chemical products at current prices         | Industry Division 20 and 21: NIC 2008        | 696001  | 756461  | 839460  |
| Consumption of Chemicals and Chemical products                               | Value of Output + Imports - Exports          | 748501  | 809652  | 876319  |
| Exports of all Chemicals as % of Value of Output                             |                                              | 25.4    | 27.3    | 29.4    |
| Imports of all Chemicals as % of Derived Consumption                         |                                              | 30.7    | 32.1    | 32.3    |

Chapter 28: Inorganic Chemicals; Organic or Inorganic Compounds of Precious Metals, of Rare-Earth Metals, of Radioactive Elements or of Isotopes; Chapter 29: Organic Chemicals; Chapter 30: Pharmaceutical products; Chapter 31: Fertilizers ; Chapter 32: Tanning or Dyeing Extracts; Tannins and their Derivatives; Dyes, Pigments and Other Colouring Matter; Paints and Varnishes; Putty and other Mastics; Inks; Chapter 38: Miscellaneous Chemical Products; Chapter 39: Plastics and articles thereof; 4002: Synthetic rubber and factice derived from oils, in primary forms or in plates, sheets or strip; mixtures of any proChapter 54: Man-made Filaments and Chapter 55: Man-made staple fibres