CHEMICALS & PETROCHEMICALS STATISTICS AT A GLANCE : 2010

सत्यमेव जयते

Department of Chemicals & Petrochemicals
(Statistics & Monitoring Division)
Ministry of Chemicals & Fertilizers
Government of India
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सचिव
Bijoy Chatterjee
Secretary

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23rd September, 2010

Preface

The manufacturing and industrial sectors are important sectors of the economy, both in terms of its spread and contribution to the generation of income and employment. The emergence of a highly competitive environment has further increased the imperatives of ensuring the availability of adequate and reliable statistics. With a paradigm shift in policies from a framework of controls, permits and licenses towards a system of liberalization and free flow of market forces through the process of economic reforms, a need has been felt than ever before for building a sound and robust database to enable policy makers to formulate appropriate policies. With this end in view, the Department of Chemicals and Petrochemicals has brought out a publication, entitled **'Chemicals and Petrochemicals Statistics At A Glance : 2010'**. This publication, *inter-alia*, contains group-wise, product-wise, year-wise information on production, installed capacities, consumption, exports and imports of major chemicals and petrochemicals. It also contains the data on Foreign Trade, Foreign Direct Investment, Index of Industrial Production (IIP) and Wholesale Price Index.

2. I wish to acknowledge the efforts put in by Dr. Ashok Vishandass, Dy. Director General who has worked hard and meticulously brought out this publication. He has used innovative methods for collecting and collating the information and compiling it in a user friendly manner. His untiring efforts deserve appreciation. The valuable contributions of Shri A.K. Goel, Consultant, Shri S.S. Kaushik, Senior Investigator and Shri Darshan Singh, Investigator are also acknowledged.

3. I am sure the **'Chemicals & Petrochemicals Statistics At A Glance : 2010'** would be informative and of use to various stakeholders and users. We hope to bring out this publication annually.

4. Our best efforts notwithstanding, some shortcomings may have crept in. Feedback regarding shortcomings/omissions along with suggestions for improvement will be highly valued.

(Bijoy Chatterjee)

Place: New Delhi
Date : 23rd September, 2010

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Acronyms

ACN	Acrylonitrile
AF	Acrylic Fibre (Including Dry Spun)
BoP	Balance of Payment
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
FII	Foreign Institutional Investors
HDPE	High Density Polyethylene
IIP	Index of Industrial Production
LAB	Linear Alkyl Benzene
LDPE	Low Density Polyethylene
LLDPE	Linear Low Density Polyethylene
MEG	Mono Ethylene Glycol
MMA	Methyl Methacrylate
NBR	Nitrite Butadiene Rubber
NFY	Nylon Filament Yarn
NIY	Nylon Industrial Yarn
PAN	Phthalic Anhydride
PBR	Poly Butadiene Rubber
PFY	Polyester Filament Yarn
PG	Propylene Glycol
PMEAC	Prime Minister's Economic Advisory Council
PMMA	Polymethyl Methacrylate
PO	Propylene Oxide

PP	Polypropylene
PPFY	Polypropylene Filament Yarn
PPSF	Polypropylene Staple Fibre
PS	Polyestyrene
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 **'Glimpses of Chemicals & Petrochemicals Statistics : 2010'** are given as under:

1. Major Chemicals:

The following major chemicals have been covered:

(i) Alkali Chemicals	:	Soda Ash, Caustic soda, Liquid Chlorine.
(ii) Inorganic Chemicals	:	Aluminum Fluoride, Calcium Carbide, Carbon Black, Potassium Chlorate, Sodium Chlorate, Titanium Dioxide, Red Phosphorous.
(iii) Organic Chemicals	:	Acetic Acid, Acetic Anhydride, Acetone, Phenol, Methanol, Formaldehyde, Nitrobenzene, Citric Acid, Maleic Anhydride, Penta-Erithritol, Aniline, Chloromethanes, ONCB, PNCB, MEK, Acetaldehyde, Ethanolamine, Ethyl Acetate, Ortho-nitro toluene.
(iv) Pesticide	:	Various Pesticides/Insecticides
(v) Dyes and dyestuff	:	Azo Dyes, Acid Direct Dyes, Basic Dyes, Fast Colour Bases, Ingrain Dyes, Oil Soluble (Solvent Dyes), Optical Whitening Agents, Organic Pigment Colours, Pigment Emulsion, Reactive Dyes, Sulphur Dyes, Vat Dyes, Food Colours, Napthols, Other Dyes.

2. Major Petrochemicals:

The following major petrochemicals have been covered:

(i) Synthetic Fibres	:	AF, NFY, NIY/TC, PFY, PSF, PPFY, PPSF, PSFF
(ii) Fibre Intermediates	:	ACN, Caprolactum, DMT, PTA, MEG
(iii) Polymer	:	Polyethylenes, PP, PS, Ex-PS, PVC
(iv) Elastomers	:	SBR, PBR, NBR, EPDM, EVA, Butyl Rubber
(v) Surfactants	:	LAB, EO
(vi) Performance Plastics	:	ABS Resin, Nylon-6 / Nylon 66, PMMA, SAN

(vii) Building Blocks

Olefins	:	Ethylene, Propylene, Butadiene
Aromatics	:	Benzene, Toluene, Orthoxylene, Paraxylene, Mixed Xylene
(viii) Other Petro -based Chemicals	:	Butanol, C4- Raffinate, DEG, 2-Ethyl Hexanol, Epichlorohydrine, Isopropanol, EDC, VAM, MMA, MIBK, PAN, PO, PG, VCM.

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 Statistical Organization, New Delhi.
	(v) Wholesale Price Index :	Department of Industrial Policy and Promotion(OEA), Ministry of Commerce & Industry, New Delhi.
	(vi) Chemical Industry (Broad definition):	The Chemical industry includes organic chemicals, inorganic chemical, 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, misc. 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 4 & 12 respectively. Unless contrary is mentioned, the terms 'Major Chemicals' and 'Major Petrochemicals' refer to the products or groups thereof as enumerated in the tables 4 & 12.

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.

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Section-I

An Aerial View of Indian Economy

An Aerial View of Indian Economy

Prelude

According to the PM Economic Advisory Council, the Indian economy is expected to grow at 9.0 per cent in 2011-12. In the current fiscal year, agriculture will grow at 4.5 per cent, industry at 9.7 per cent and services at 8.9 per cent.

Structural Factors

2. In 2008-09, the investment rate fell on account of the drawdown of inventories. This trend has reversed and the investment rate is expected to be higher at 36 per cent (of GDP) in 2009-10, rising to 37 per cent in 2010-11 and 38.4 per cent in 2011-12. The domestic savings rates are expected to pick up and reach 33.4 per cent in 2009-10, 34.3 per cent in 2010-11 and 35.5 per cent in 2011-12. These rates may enable the economy to grow in a sustained manner at 9.0 per cent.

3. Private corporate investment and total investment in fixed assets is expected to recover strongly but will not reach the previous high levels. Government Final Consumption Expenditure to GDP which hit a peak of 12.3 per cent in 2009-10 is expected to fall to 10.3 per cent in 2011-12. On the contrary, Private Final Consumption Expenditure which declined in 2008-09 and 2009-10 is expected to increase in the current and next fiscal year. Since 2001-02, the progressive decline in the Private Final Consumption Expenditure has been accompanied by a matching increase in the investment expenditure component of GDP.

4. Overall, GDP arising in the industrial sector is expected to expand 9.6 percent in 2010-11, rising to 10.3 per cent in 2011-12. The expansion in the services sector is expected to approach 9 per cent in 2010-11 and inch up to 9.6 per cent in 2011-12. Over all, the non-farm sector is expected to grow by 9.2 per cent in 2010-11 and 9.8 per cent in 2011-12.

Trade and External Sector

5. According to the DGCI&S report, the merchandise trade exports touched $176.6 billion in 2009-10 which was 4.7 per cent less than 2008-09. Engineering and electronic goods were the hardest hit, declining by more than 20 per cent. Because of currency fluctuations, the rupee value of exports showed practically no decline in 2009-10. The value of merchandise imports in 2009-10 in US $ terms was 8.2 per cent lower at $278.7 billion and 4 per cent lower in rupee terms.

Economic Outlook For 2010-11

S.N	Sector of Economy	2005-06	2006-07	2007-08	2008-09 (QE)	2009-10 (Rev)	2010-11 (f)	2011-12 (f)
		Year-on-year Growth Rates						
1	Agriculture & allied activities	5.2	3.7	4.7	1.6	0.2	4.5	4.0
2	Mining & Quarrying	1.3	8.7	3.9	1.6	10.6	8	8.0
3	Manufacturing	9.6	14.9	10.3	3.2	10.8	10	10.5
4	Electricity, Gas & Water Supply	6.6	10	8.5	3.9	6.5	7.5	9.0
5	Construction	12.4	10.6	10	5.9	6.5	10	11.0
6	Trade, Hotels, Transport, Storage & Communication	12.1	11.7	10.7	7.6	9.3	10	10.0
7	Finance, insurance, real estate & business services	12.8	14.5	13.2	10.1	9.7	9.5	10.5
8	Community & personal services	7.6	2.6	6.7	13.9	5.6	6	7.5
9	Gross Domestic Product at factor cost	9.5	9.7	9.2	6.7	7.4	8.5	9.0
10	Industry (2 + 3 + 4 + 5)	9.3	12.7	9.5	3.9	9.3	9.7	10.3
11	Services (6 + 7 + 8)	11.1	10.2	10.5	9.3	3.5	8.9	9.6
12	Non-agriculture (9 - 1)	10.5	11	10.2	7.7	8.8	9.2	9.8
13	GDP (factor cost) per capita	7.8	8.1	7.7	5.2	6.2	7	7.5
	Some Magnitudes							
14	GDP at factor cost - 2004/05 prices in Rs lakh crore (or Trillion)	32.5	35.6	38.9	41.5	44.6		52.8
15	GDP market & current prices in Rs lakh crore (or Trillion)	37.1	42.8	49.5	55.7	62.3	0.3	79.2
16	GDP market & current prices in US$ Billion	837	947	1,231	1,222	1,317	529	1,722
17	Population in Million	1.106	1,122	1,138	1,154	1,170	86	1,203
18	GDP market prices per capita (current prices)	33,512	38,182	43,479	48,305	53,258	5	65,867
19	GDP market prices per capita in current US$	757	844	1,082	1,059	1,126	89	1,432

QE refers to the Quick Estimates for National Income released on '29 Jan 2010.
Rev refers to the Revised Estimate for National Income released on 31 May, 2010
f : stands for forecasts made by the PM Economic Advisory Council.

6. In 2010-11, the value of crude oil imports is expected to be high due to increase in crude prices by almost 15 per cent and an increase in the quantities imported. The oil import bill is expected to rise to $103 billion in

2010-11 and to $120 billion in 2011-12. Amongst the non oil imports, a comparatively slower growth in the case of gold, silver imports and a stronger growth in the remaining segments. The overall merchandise imports on balance-of-payments basis are expected to rise to nearly $354 billion (up 18 per cent) in 2010-11 and $414 billion (up 17 per cent) in 2011-12.

7. On the export side, the PMEAC has projected that in 2010-11 export growth of petroleum products would be slightly higher than that of imports at 24 per cent and 16 per cent in 2010-11 and 2011-12 respectively. The value of exports of gems and jewellery would show growth of 25 per cent. Export of non-oil, non-jewellery products is likely to rise by 20 per cent in 2010-11, and moderate slightly in 2011-12. The projections for exports on balance-of-payments basis for 2010-11 amounts to US $216 billion and for 2011-12 to $254 billion.

8. Overall, the merchandise trade deficit on balance-of-payments (BoP) basis in 2010-11 is estimated at $138 billion which is 18 per cent more than the previous year. The projected trade deficit in 2011-12 is $160 billion, an increase of 16 per cent over the 2010-11. In both years, the merchandise trade deficit is expected to be around 9 per cent of GDP.

9. ITES (software exports and business process outsourcing) and private remittances which had shown strong growth rates fell in 2008-09 as a result of the global crisis. In 2009-10, while private remittances showed a growth of 17 per cent, the ITES exports showed a surprising *decline* of 7 per cent. As a result of this, net invisibles showed a *decline* of 12 per cent for the first time in many years.

10. The process of revision is expected to see changes in many components of BoP. The current account deficit which is now provisionally placed at 2.9 per cent of GDP is likely to come down on revision to around 2.5 per cent. The projections that are being made for 2010-11 and 2011-12 are on the basis that such revisions would indeed happen. ITES related export earnings is expected to increase by 12 per cent in 2010-11 and 20 per cent in 2011-12. Private remittances are projected to grow at a lower rate of 12 and 16 per cent respectively in these two years. This gives us a current account deficit of US $42 billion (2.7 per cent of GDP) in 2010-11 and $51 billion (2.9 per cent of GDP) in 2011-12.

11. In 2009-10, the net FDI inflow at $20 billion was 11 per cent more in 2009-10 compared to the previous year. Portfolio capital inflows at $32 billion marked a big turnaround from (-) $14 billion in 2008-09, reflecting the growth in domestic and world asset markets. The portfolio inflows were primarily in the form of investments by Foreign Institutional Investors (FIIs) while the overseas equity issuance (GDR and ADR) by Indian corporates was quite subdued. Loan capital inflows stood at $12 billion.

12. In 2010-11 and 2011-12 a continued expansion of net FDI is expected to be to $30 billion in both years, portfolio capital inflows of $25 billion and $35 billion and a steady increase in net loan capital inflows to $17 and $25 billion respectively. Overall, capital inflows are expected to be $73 billion in 2010-11 and $91 billion in 2011-12. This would be adequate to finance the large current account deficit in the two years and leave a modest $31 and $41 billion (2.0 and 2.4 per cent of GDP) to be absorbed in the foreign exchange reserves.

Prices and Inflationary Pressure

13. Since October 2008, the Indian economy has been experiencing very high inflation in food prices. Initially, this high inflation was confined to only food articles – both primary and manufactured. However, as economic recovery began to stabilize it has, not unexpectedly, manifested itself in the prices of manufactured goods.

14. The headline inflation rate, which was 1 per cent in September 2009, has been rising since then reaching double digits in February 2010. Even in June the provisional headline rate was over 10 per cent. Inflation in manufactured goods also jumped from less than 1 per cent in September 2009 to a high level of 6-8 per cent in April-June 2010.

15. Inflation reflected in Consumer Price Indices has been running in double digits. In July 2009, both CPI-IW (Industrial Workers) and CPI-UNME (Urban Non-Manual Employees) surged from 9 per cent to 12 and 13 per cent respectively. By December 2009, both indices were reporting inflation of around 15 per cent, which increased further to 16 per cent in January 2010. There has been a slight easing thereafter, with both indices reporting inflation of less than 15 per cent in March, 2010. The CPI-IW inflation rate for May, 2010 was less than 14 per cent.

16. Inflation has remained a major source of concern in the economy for more than a year. The overall WPI inflation rate has remained at double digit levels for the past five months and the consumer price inflation for much longer. Inflationary expectations, particularly food inflation expectations, are likely to be moderated because of the projected normal monsoon. Food prices have already begun to soften. Combined with the base effect, inflation rate is expected to fall to around 6.5 per cent by March, 2011.

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Section-II

Chemical Sector

Indian Chemical Industry

Chemical Industry provides valuable chemicals for various end products such as textiles, paper, paints and varnishes, leather etc., which are required in almost all walks of life. It plays an important role in the overall economic activity of the country. The chemicals include inorganic & organic chemicals, petrochemicals, dyes and dye intermediates, pigments, plastics, specialty chemicals, fertilizers, drugs & pharmaceuticals, pesticides and agrochemicals, leather chemicals etc. The Indian Chemical Industry forms the backbone of the industrial and agricultural development of India and provides building blocks for downstream industries.

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 chemicals. Sealants, coatings, catalysts also come under this category.

iii. **Agro - Chemicals**

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

Chemical Industry and the Society

The Chemical Industry 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 Chemical Industry. It plays a crucial role in housing development.

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 needed in boilers and other applications. It is even more striking that gold, which is adored in our country, cannot be beneficiated without cyanide. 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 dialysers also depend on the Chemical Industry.

The Chemical industry presently faces 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. It is imperative that domestic manufacturers compete with the best in the world in terms of cost and quality.

The Chemical Industry touches almost every aspect of our daily life. The following figure indicates the various end uses of the output of the Chemical Industry.

Table-1 : Size of Indian Chemical Industry

S.No.	Name	Size (Rs. Crores)	Size (US $ Billion)
1	Beverages, spirits and vinegar	3200.00	0.71
2	Inorganic chemicals	8000.00	1.77
3	Organic chemicals	75700.00	16.83
4	Pharmaceuticals products	100611.00	22.35
5	Fertilizers	130902.00	29.08
6	Tanning or dyeing extracts, dyes pigments, paints and varnishes, putty and other mastics inks	26730.00	5.94
8	Soap, organic surface, active agents, washing, lubricating, artificial waxes, dental waxes, polishing	4456.00	1.00
12	Misc. Chemical products	11000.00	2.44
13	Petrochemicals, plastics synthetic, rubber, man made filaments, manmade fiber.	94500.00	21.00
	Total	**455099.00**	**101.12**

Note: In addition, Essential oils, perfumery cosmetic, albuminoidal substance, modified starches, glues, enzymes, Explosive, pyrotechnic products, matches, pyrophoric alloys, photographic or cinematographic goods are also included in the Chemical Industry. However, these are not included in this table due to non-availablity of relevant data.

Table-2 : Performance of Major Chemicals at a Glance

(Figures in 000'MT)

GROUP	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 *	CARG (%)
1	2	2	3	4	5	6	7	9	(08-09/02-03)
1. Alkali Chemicals									
Capacity	6256	6393	6422	6603	7072	7490	7490	7490	3.05
Production	4792	5070	5272	5475	5269	5443	5442	5602	2.14
Capacity Utilisation (%)	76.6	79.3	82.1	82.9	74.5	72.7	72.7	74.8	
Imports	219	201	252	711	409	500	511	723	15.17
Exports	239	217	358	230	179	111	148	104	-7.68
Consumption@	4772	5054	5166	5956	5499	5832	5805		3.32
2. Other Inorganic Chemicals									
Capacity	485	568	642	742	749	716	716	716	6.71
Production	404	441	508	544	602	609	513	518	4.06
Capacity Utilisation (%)	83.3	77.6	79.1	73.3	80.4	85.1	71.6	72.3	
Imports	99	116	99	131	130	174	189	141	11.38
Exports	34	64	153	121	101	123	98	274	19.30
Consumption@	469	493	454	554	631	660	604		4.31
3. Organic Chemicals									
Capacity	1385	1601	1669	1812	1889	1940	1940	1940	5.78
Production	1353	1474	1506	1545	1545	1552	1254	1280	-1.26
Capacity Utilisation (%)	97.7	92.1	90.2	85.3	81.8	80.0	64.6	66.0	
Imports	395	598	568	663	867	1207	1636	1141	26.73
Exports	22	46	63	53	61	116	82	91	24.52
Consumption@	1726	2026	2011	2155	2351	2643	2808		8.45
4. Pesticides (Tech.)									
Capacity	138	134	146	148	145	146	146	146	0.94
Production	70	85	94	82	85	83	85	82	3.29
Capacity Utilisation (%)	50.7	63.4	64.4	55.4	58.6	56.8	58.2	56.3	
Imports	1	2	2	2	2	1	0	0	-100.00
Exports	17	20	22	24	28	25	0	0	-100.00
Consumption@	54	67	74	60	59	59	85		7.85
5. Dyes & Dyestuffs									
Capacity	44	54	54	52	53	55	55	55	3.79
Production	26	26	28	30	33	44	32	42	3.52
Capacity Utilisation (%)	59.1	48.1	51.9	57.7	62.3	80.0	58.2	77.1	
Imports	10	13	15	23	27	32	25	22	16.50
Exports	122	131	122	152	170	199	197	167	8.31
Consumption@	-86	-92	-79	-99	-110	-123	-140		8.46
Total Major Chemicals (1 to 5)									
Capacity	8308	8750	8933	9357	9908	10347	10347	10347	3.73
Production	6645	7096	7408	7676	7534	7731	7326	7524	1.64
Capacity Utilisation (%)	80.0	81.1	82.9	82.0	76.0	74.7	70.8	72.7	
Imports	724	930	936	1530	1435	1914	2361	2027	21.78
Exports	434	478	718	580	539	574	525	636	3.22
Consumption@	6935	7548	7626	8626	8430	9071	9162		4.75

@ : *Derived consumption as Production + Import - Export*

* : *Exports and Imports are for the period April-Dec.,09*

Table-3 : Production, Capacity Utilisation & Growth of Major Chemicals (Group-wise) during 2002-2010

(000' MT , %)

Major Groups	Installed Capacity			Production								Growth in Prodn. (%)		Cap. Utilis. in 09-10
	2002-03	2008-09	2009-10	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CARG col 12/col.5	col.12/col. 11	Col.12/Col.4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I: Alkali Chemicals	6256	7490	7490	4792	5070	5272	5475	5269	5443	5442	5602	2.26	2.94	74.79
II: Inorgnic Chemicals	485	716	716	404	441	508	544	602	609	513	518	3.61	0.97	72.35
III Organic Chemicals	1385	1940	1940	1353	1474	1506	1545	1545	1552	1254	1280	-0.79	2.07	65.98
IV: Pesticides and Insecticides	138	146	146	70	85	94	82	85	83	85	82	2.29	-3.53	56.16
V:Dyes and Dyestuffs	44	55	55	26	26	28	30	33	44	32	42	7.09	31.25	76.36
TOTAL MAJOR CHEMICALS (I TO V)	8308	10347	10347	6645	7096	7408	7676	7534	7731	7326	7524	1.79	2.70	72.72

CARG : Compound Annual Rate of Growth

Table-4 : Production, Capacity Utilisation & Growth of Major Chemicals (Product-wise) during 2002-2010

(000' MT , %)

Major Groups / Products	Installed Capacity			Production								Growth in Prodn. (%)		Cap. Utili in 09-10
	2002-03	2008-09	2009-10	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CARG col 12/col.5	col.12/col.11	Col.12/Col.4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I : ALKALI CHEMICALS														
SODA ASH	2500.00	2952.00	2952.00	2057.12	2167.08	2287.24	2298.24	2078.06	2005.51	1989.05	2058.34	0.01	3.48	69.73
CAUSTIC SODA	2379.00	2647.00	2647.00	1662.04	1749.26	1795.88	1882.57	1914.22	2050.69	2050.03	2103.75	3.42	2.62	79.48
LIQUID CHLORINE	1377.00	1891.00	1891.00	1073.18	1154.03	1188.55	1293.80	1276.71	1387.13	1402.84	1439.92	4.29	2.64	76.15
Total	**6256.00**	**7490.00**	7490.00	**4792.35**	**5070.37**	**5271.68**	**5474.61**	**5268.99**	**5443.32**	**5441.92**	**5602.00**	**2.26**	**2.94**	**74.79**
II : Other INORGANIC CHEMICALS														
ALUMINIUM FLOURIDE	17.60	27.00	27.00	14.82	16.22	13.88	20.08	20.30	19.43	15.07	11.55	-3.50	-23.35	42.78
CALCIUM CARBIDE	71.60	145.00	145.00	49.02	47.95	52.73	64.64	91.95	97.41	66.55	22.02	-10.80	-66.91	15.19
CARBON BLACK	315.70	455.00	455.00	291.79	323.75	381.26	395.10	422.47	426.96	371.40	419.43	5.32	12.93	92.18
POTASSIUM CHLORATE	11.60	11.60	11.60	2.15	2.30	2.26	3.39	4.13	5.36	5.79	2.60	2.76	-55.08	22.42
TITANIUM DIOXIDE	66.50	76.00	76.00	45.46	49.84	57.56	60.29	62.92	59.15	53.24	61.32	4.37	15.18	80.69
RED PHOSPHORUS	1.70	1.70	1.70	0.59	0.55	0.47	0.46	0.54	0.54	0.46	0.58	-0.24	25.81	34.12
Total	**484.70**	**716.30**	**716.30**	**403.83**	**440.61**	**508.16**	**543.97**	**602.31**	**608.86**	**512.51**	**517.51**	**3.61**	**0.98**	**72.25**

Table-4 : Production, Capacity Utilisation & Growth of Major Chemicals (Product-wise) during 2002-2010

(000' MT , %)

Major Groups / Products	Installed Capacity			Production								Growth in Prodn. (%)		Cap. Utili in 09-10
	2002-03	2008-09	2009-10	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CARG col 12/col.5	col.12/col.11	Col.12/Col.4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
III : ORGANIC CHEMICALS														
ACETIC ACID	241.30	351.00	351.00	251.68	308.08	287.90	305.91	287.85	316.01	203.34	146.09	-7.48	-28.15	41.62
ACETIC ANHYDRIDE	50.40	59.00	59.00	23.19	28.48	26.71	28.63	30.60	29.32	36.14	43.42	9.37	20.14	73.60
ACETONE	46.00	46.00	46.00	44.13	46.72	51.68	36.79	44.22	47.19	46.83	44.25	0.04	-5.51	96.20
PHENOL	66.50	74.00	74.00	76.22	75.15	84.14	58.21	71.27	74.94	75.75	71.59	-0.89	-5.49	96.74
METHANOL	319.00	385.00	385.00	362.17	389.40	392.20	386.76	396.23	351.73	237.66	330.83	-1.28	39.20	85.93
FORMALDE HYDE	192.20	315.00	315.00	181.85	199.13	196.01	249.39	234.82	242.76	231.84	259.67	5.22	12.00	82.43
NITROBENZ ENE	52.00	54.00	54.00	25.70	27.92	26.51	23.59	14.73	13.11	13.93	12.34	-9.95	-11.40	22.85
MALEIC ANHYDRIDE	14.30	23.00	23.00	11.89	14.44	13.40	12.75	12.95	4.25	2.97	2.55	-19.73	-14.16	11.10
PENTA-ERITHRITOL	12.80	18.60	18.60	14.04	15.25	14.48	15.18	13.73	14.95	13.82	11.21	-3.17	-18.93	60.25
ANILINE	28.70	48.70	48.70	47.29	45.04	49.60	48.11	47.37	44.98	29.67	39.38	-2.58	32.74	80.87
CHLORO METHANES	81.10	90.00	90.00	79.13	89.57	92.49	93.80	92.19	85.86	96.22	91.12	2.04	-5.30	101.24
ISOBUTYLE	3.50	3.50	3.50	1.95	1.68	1.68	2.31	2.52	3.33	3.34	4.07	11.08	21.98	116.23
ONCB	32.80	32.80	32.80	15.17	12.24	15.60	14.75	12.82	13.81	15.71	15.44	0.25	-1.74	47.07
PNCB	42.00	42.00	42.00	24.51	18.53	24.67	22.23	18.46	20.92	25.25	23.57	-0.56	-6.66	56.11
MEK	4.00	9.00	9.00	8.74	7.64	7.27	1.36	0.10	0.00	0.00	0.00	-100.00	0.00	0.00
ACETALDEH YDE	127.20	236.00	236.00	126.15	127.45	139.73	159.11	163.87	182.48	108.07	59.25	-10.23	-45.17	25.11
ETHANOLA MINES	10.00	10.00	10.00	11.00	6.54	9.34	8.65	7.27	9.86	12.31	7.00	-6.25	-43.12	70.01
ETHYL ACETATE	55.10	132.00	132.00	40.12	53.81	66.26	70.29	87.67	90.84	93.22	103.96	14.57	11.52	78.76
ORTHO NITRO TOLUENE	6.10	10.00	10.00	4.42	6.81	6.23	7.45	6.80	5.72	8.10	13.80	17.68	70.32	137.99
Total	**1385.00**	**1939.60**	**1939.60**	**1352.65**	**1473.86**	**1505.90**	**1545.26**	**1545.44**	**1552.05**	**1254.17**	**1279.55**	**-0.79**	**2.02**	**65.97**

Table-4 : Production, Capacity Utilisation & Growth of Major Chemicals (Product-wise) during 2002-2010

(000' MT , %)

Major Groups / Products	Installed Capacity			Production								Growth in Prodn. (%)		Cap. Utill in 09-10
	2002-03	2008-09	2009-10	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CARG col 12/col.5	col.12/col.11	Col.12/Col.4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
IV : PESTICIDES AND INSECTICIDES														
D.D.T.	6.30	6.30	6.30	2.94	4.47	4.04	4.43	4.50	3.44	3.31	3.61	2.99	9.20	57.29
MALATHION	9.50	8.80	8.80	4.25	3.95	4.71	2.74	4.30	3.97	2.00	0.62	-24.05	-69.05	7.03
PARATHION (METHYL)	4.00	4.00	4.00	2.04	1.31	0.98	0.46	0.00	0.00	0.00	0.00	-100.00	0.00	0.00
DIMETHOATE	3.20	3.20	3.20	0.76	0.92	0.90	0.83	0.97	0.87	0.56	0.96	3.39	71.51	29.91
D.D.V.P.	3.90	5.40	5.40	2.51	3.46	4.98	3.84	3.89	3.29	2.73	3.12	3.15	14.16	57.80
QUINALPHOS	5.60	4.00	4.00	1.77	1.84	0.87	0.86	0.82	0.52	0.89	0.99	-7.98	11.37	24.73
MONOCROTOPHOS	16.20	14.00	14.00	6.52	8.12	9.51	4.90	4.91	5.12	4.57	5.74	-1.81	25.56	40.99
PHOSPHAMIDON	5.70	3.90	3.90	0.84	0.36	0.39	0.54	0.37	0.71	0.85	1.00	2.62	18.46	25.67
PHORATE	7.50	8.20	8.20	3.16	5.08	3.64	6.22	5.71	3.23	2.03	2.00	-6.29	-1.28	24.43
ETHION	5.10	5.60	5.60	1.68	2.83	1.79	1.51	1.80	0.77	0.16	0.43	-17.83	170.70	7.59
ENDOSULPHAN	10.10	9.90	9.90	3.66	3.60	3.05	2.94	3.90	3.96	4.26	2.80	-3.78	-34.39	28.25
FENVALERATE	2.10	2.60	2.60	0.52	0.82	0.63	0.57	0.52	0.72	0.49	0.53	0.30	9.22	20.50
CYPERMETHRIN	4.60	6.90	6.90	5.08	5.17	6.52	6.48	5.06	4.66	4.03	6.23	2.95	54.31	90.22
ANILOPHOS	1.20	1.10	1.10	0.35	0.47	0.36	0.20	0.02	0.00	0.00	0.00	-100.00	0.00	0.00
ACEPHATE	4.80	9.20	9.20	4.84	3.99	6.14	8.48	8.33	10.06	9.65	10.83	12.21	12.24	117.75
CHLORPYRIPHOS	10.30	9.10	9.10	6.40	8.11	9.13	4.94	4.72	4.54	3.89	2.90	-10.71	-25.47	31.84
PHOSALONE	1.00	1.00	1.00	0.44	0.49	0.54	0.27	0.25	0.50	0.00	0.00	-100.00	0.00	0.00
METASYSTOX	*	*	*	0.51	0.50	0.56	0.32	0.63	0.00	0.00	0.00	-100.00	0.00	0.00
FENTHION	*	*	*	0.91	0.22	0.18	0.33	0.12	0.00	0.00	0.00	-100.00	0.00	0.00
TRIAZOPHOS	*	*	*	1.15	2.11	2.94	2.85	1.84	1.84	2.06	1.00	-1.99	-51.50	0.00
LINDANE	1.30	0.70	0.70	0.33	0.41	0.38	0.18	0.25	0.08	0.00	0.00	-100.00	0.00	0.00

Table-4 : Production, Capacity Utilisation & Growth of Major Chemicals (Product-wise) during 2002-2010

(000' MT , %)

Major Groups / Products	Installed Capacity			Production								Growth in Prodn. (%)		Cap. Utili in 09-10
	2002-03	2008-09	2009-10	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CARG col 12/col.5	col.12/col.11	Col.12/Col.4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
TEMEPHOS	0.20	0.20	0.20	0.12	0.09	0.25	0.03	0.10	0.08	0.13	0.00	-100.00	-100.00	0.00
DELTAMETHRIN	0.30	0.50	0.50	0.21	0.18	0.39	0.31	0.34	0.26	0.03	0.02	-30.27	-34.62	3.40
ALPHAMETHRIN	0.40	1.50	1.50	0.19	0.21	0.33	0.25	0.17	0.21	0.02	0.00	-100.00	-100.00	0.00
CAPTAN & CAPTAFOL	1.80	1.80	1.80	0.78	0.84	0.85	0.01	0.19	0.00	0.00	0.00	-100.00	0.00	0.00
ZIRAM(THIO BARBAMATE)	0.40	0.50	0.50	0.00	0.28	0.29	0.11	0.24	0.19	0.07	0.00	#DIV/0!	-100.00	0.00
CARBENDZIM(BAVISTIN)	1.80	1.50	1.50	1.26	0.84	0.73	0.43	0.14	0.07	0.19	0.19	-23.77	1.61	12.60
CALIXIN	0.20	0.20	0.20	0.05	0.05	0.07	0.04	0.03	0.00	0.00	0.00	-100.00	0.00	0.00
MANCOZAB	11.00	20.70	20.70	10.19	17.25	20.80	18.86	22.88	27.12	35.34	31.49	17.49	-10.89	152.12
COPPER-OXYCHLORIDE	1.50	1.50	1.50	0.24	0.15	0.00	0.00	0.00	0.00	0.00	0.00	-100.00	0.00	0.00
2, 4-D	2.90	1.20	1.20	0.00	0.19	0.13	0.33	0.00	0.27	0.21	0.00	0.00	-100.00	0.00
BUTACHLOR	0.90	0.50	0.50	0.24	0.33	0.26	0.25	0.18	0.03	0.12	0.24	-0.30	100.84	47.80
ISOPROTURON	8.50	5.40	5.40	2.66	4.41	4.66	4.30	3.15	2.96	2.98	2.91	1.31	-2.32	53.89
GLYPHOSATE	2.00	2.60	2.60	0.11	0.31	1.02	1.52	2.10	1.52	2.33	1.70	48.41	-27.20	65.27
DIURON	0.04	0.10	0.10	0.05	0.06	0.00	0.00	0.00	0.08	0.01	0.13	14.78	950.00	126.00
ATRAZIN	0.04	0.50	0.50	0.20	0.06	0.04	0.00	0.09	0.22	0.26	0.26	3.99	0.00	52.60
FLUCHLORALIN	0.30	0.20	0.20	0.19	0.16	0.17	0.12	0.10	0.00	0.00	0.00	-100.00	0.00	0.00
ZINC PHOSPHIDE	0.90	0.90	0.90	0.24	0.23	0.31	0.25	0.81	0.46	0.38	0.33	4.83	-13.03	36.33
ALUMINIUM	2.30	2.30	2.30	1.99	1.17	1.36	1.52	1.53	1.62	1.72	2.16	1.18	25.55	94.00
DICOFOL	0.20	0.20	0.20	0.10	0.09	0.07	0.04	0.05	0.09	0.09	0.02	-20.76	-77.27	10.00
Total	**138.08**	**146.20**	**146.20**	**69.57**	**85.12**	**93.97**	**82.24**	**85.00**	**83.42**	**85.34**	**82.19**	**2.41**	**-3.69**	**56.21**

Table-4 : Production, Capacity Utilisation & Growth of Major Chemicals (Product-wise) during 2002-2010

(000' MT , %)

Major Groups / Products	Installed Capacity			Production								Growth in Prodn. (%)		Cap. Utill In 09-10
	2002-03	2008-09	2009-10	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CARG col 12/col.5	col.12/col.11	Col.12/Col.4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
V : DYES AND DYESTUFFS														
AZO DYES	7.90	8.70	8.70	4.10	3.95	4.12	3.91	3.53	5.31	2.90	2.70	-5.76	-6.76	31.08
DISPERSE DYES	4.30	6.50	6.50	1.29	1.23	1.12	1.13	1.00	0.65	0.55	0.42	-14.79	-23.91	6.46
FAST COLOUR BASES	0.60	0.60	0.60	0.00	0.01	0.00	0.00	0.01	0.04	0.04	0.05	0.00	11.36	8.17
INGRAIN DYES	0.30	0.50	0.50	0.03	0.16	0.18	0.42	0.57	1.20	1.09	0.93	64.02	-14.65	185.20
OPTICAL WHITENING AGENTS	1.10	3.40	3.40	0.41	0.30	0.27	0.37	0.45	1.58	1.73	2.21	27.43	27.89	65.00
ORGANIC PIGMENT COLOURS	9.00	11.00	11.00	10.93	11.27	13.55	13.57	16.45	25.66	13.97	18.24	7.59	30.57	165.80
PIGMENT EMULSION	6.30	6.30	6.30	2.02	2.37	2.27	2.22	1.82	1.90	3.39	4.79	13.16	41.35	76.02
REACTIVE DYES	7.90	7.90	7.90	2.98	2.28	2.65	2.87	1.16	1.31	1.30	2.80	-0.91	115.88	35.44
SULPHUR DYES (SULPHUR BLACK)	3.30	3.30	3.30	2.26	2.90	2.56	3.00	5.72	4.24	5.64	8.69	21.22	54.18	263.36
VAT DYES	2.30	3.00	3.00	1.45	0.99	1.23	1.60	1.49	1.60	1.22	1.45	0.09	18.79	48.47
SOLUBILISED VAT DYES	0.10	0.10	0.10	0.04	0.01	0.02	0.02	0.02	0.04	0.03	0.03	-2.11	24.00	31.00
NAPTHOLS	1.20	3.60	3.60	0.37	0.48	0.54	0.44	0.32	0.14	0.15	0.08	-20.09	-49.01	2.14
Total	**44.30**	**54.90**	**54.90**	**26.20**	**25.94**	**28.50**	**29.54**	**32.55**	**43.64**	**32.00**	**42.39**	**7.12**	**32.47**	**77.21**
TOTAL MAJOR CHEMICALS (I TO V)	8308.08	10347.00	10347.00	6644.59	7095.90	7408.19	7675.62	7534.29	7731.30	7325.94	7523.64	1.79	2.70	72.71

Table-5 : Production & Growth of Major Chemicals (Group-wise) during Q1 (2010- 11)

(000'MT ; %)

Group / Product	April - June		Growth (%)
	(2010 - 2011) *	(2009 - 2010)	
I : ALKALI CHEMICALS	1439.42	1386.54	3.81
II : Other INORGANIC CHEMICALS	135.87	131.08	3.65
III : ORGANIC CHEMICALS	336.31	282.63	18.99
IV : PESTICIDES AND INSECTICIDES	21.19	25.43	-16.69
V : DYES AND DYESTUFFS	11.91	9.19	29.52
MAJOR CHEMICALS (I TO V)	1944.69	1834.87	5.99

** : Provisional*

Table-6 : Production & Growth of Major Chemicals(Product-wise) during Q1 (2010-11)

(000'MT ; %)

Group / Product	April - June		Growth
	(2010 - 2011) *	(2009 - 2010)	(%)
I : ALKALI CHEMICALS			
SODA ASH	565.40	515.27	9.73
CAUSTIC SODA	511.86	517.61	-1.11
LIQUID CHLORINE	362.17	353.66	2.40
TOTAL	**1439.42**	**1386.54**	**3.81**
II : Other INORGANIC CHEMICALS			
ALUMINIUM FLOURIDE	1.79	2.33	-23.32
CALCIUM CARBIDE	4.26	5.96	-28.58
CARBON BLACK	114.23	106.41	7.34
POTASSIUM CHLORATE	0.19	1.24	-85.01
TITANIUM DIOXIDE	15.32	14.98	2.26
RED PHOSPHORUS	0.10	0.17	-37.58
TOTAL	**135.87**	**131.08**	**3.65**
III : ORGANIC CHEMICALS			
ACETIC ACID	31.60	35.37	-10.67
ACETIC ANHYDRIDE	11.28	11.48	-1.74
ACETONE	11.99	8.41	42.62
PHENOL	19.21	13.55	41.80
METHANOL	97.07	58.47	66.01
FORMALDEHYDE	65.76	57.92	13.52
NITROBENZENE	2.80	4.10	-31.55
MALEIC ANHYDRIDE	0.77	0.64	21.10
PENTA-ERITHRITOL	2.85	2.68	6.49
ANILINE	10.89	9.42	15.63
CHLORO METHANES	27.25	25.09	8.61
ISOBUTYLE	0.59	1.50	-60.64
ONCB	4.66	3.20	45.62
PNCB	6.97	5.71	22.06
ACETALDEHYDE	11.66	17.98	-35.12
ETHANOLAMINES	1.05	2.17	-51.54
ETHYL ACETATE	26.05	22.17	17.52
ORTHO NITRO TOLUENE	3.86	2.79	38.36
TOTAL	**336.31**	**282.63**	**18.99**

Table-6 : Production & Growth of Major Chemicals(Product-wise) during Q1 (2010-11)

(000'MT ; %)

Group / Product	April - June		Growth
	(2010 - 2011) *	(2009 - 2010)	(%)
IV : PESTICIDES AND INSECTICIDES			
D.D.T.	0.03	0.00	0.00
MALATHION	0.10	0.20	-47.96
DIMETHOATE	0.27	0.29	-7.82
D.D.V.P.	0.81	1.08	-25.46
QUINALPHOS	0.33	0.34	-1.76
MONOCROTOPHOS	2.25	2.08	8.48
PHOSPHAMIDON	0.15	0.09	60.64
PHORATE	0.89	0.85	3.75
ETHION	0.07	0.06	23.21
ENDOSULPHAN	0.37	0.98	-62.70
FENVALERATE	0.08	0.17	-52.69
CYPERMETHRIN	0.91	2.64	-65.48
ACEPHATE	3.25	2.74	18.82
CHLORPYRIPHOS	1.14	0.77	48.38
TRIAZOPHOS	0.25	0.56	-54.88
CARBENDZIM(BAVISTIN)	0.04	0.07	-45.95
MANCOZAB	7.93	10.54	-24.77
BUTACHLOR	0.09	0.14	-36.36
ISOPROTURON	0.54	0.35	51.41
GLYPHOSATE	0.85	0.70	21.31
DIURON	0.07	0.00	0.00
ATRAZIN	0.11	0.06	69.84
ZINC PHOSPHIDE	0.12	0.09	29.35
ALUMINIUM	0.53	0.59	-10.39
DICOFOL	0.00	0.01	-84.62
TOTAL	**21.19**	**25.43**	**-16.69**
V : DYES AND DYESTUFFS			
AZO DYES	0.88	0.56	57.14
DISPERSE DYES	0.11	0.08	48.00
FAST COLOUR BASES	0.02	0.01	171.43
INGRAIN DYES	0.25	0.28	-9.39
OPTICAL WHITENING AGENTS	0.75	0.49	52.54
ORGANIC PIGMENT COLOURS	4.99	3.99	25.17
PIGMENT EMULSION	1.35	1.27	6.71
REACTIVE DYES	0.90	0.74	21.27
SULPHUR DYES (SULPHUR BLACK)	2.27	1.57	44.64
VAT DYES	0.36	0.21	76.59
SOLUBILISED VAT DYES	0.01	0.00	133.33
NAPTHOLS	0.02	0.01	50.00
TOTAL	**11.91**	**9.19**	**29.52**
MAJOR CHEMICALS (I TO V)	**1944.69**	**1834.87**	**5.99**

Table-7: Installed Capacities of Selected Chemicals

(Figures in MT)

Product	2004-05	2005-06	2006-07	2007-08	2008-09
ACETIC ACID (Total)	312120	349440	349440	349440	349440
ACETIC ACID (Alcohol Based)	212120	249440	249440	249440	249440
ACETIC ACID (Petrol Based)	100000	100000	100000	100000	100000
ACETIC ANHYDRIDE (Alcohol Based)	42820	42820	42820	42820	42820
ACETONE (Petrol Based)	44500	44500	44500	44500	44500
ETHYL ACETATE ((Alcohol Based)	93368	104828	130628	130628	130628
MONO EHYLENE GLYCOL (Total)	618300	664800	733170	834300	819900
MEG (Alcohol Based)	60000	86500	86500	86500	86500
MEG (Petrol Based)	558300	578300	646670	747800	733400

Table-8 : Consumption of Major Chemicals (Group-wise)

(000'MT)

PRODUCT	CONSUMPTION						
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
ALKALI CHEMICALS	4772.77	5055.08	5164.65	5955.79	5498.99	5831.55	5805.01
Other INORGANIC CHEMICALS	468.86	492.92	454.72	554.74	631.04	659.78	603.19
ORGANIC CHEMICALS	1725.01	2025.23	2011.10	2155.19	2350.54	2643.58	2808.31
PESTICIDES AND INSECTICIDES	53.19	67.15	74.31	60.17	59.73	59.13	85.34

Consumption = Production + Imports - Exports

Table-9 : Consumption of Major Chemicals (Product-wise)

(000'MT)

PRODUCT	CONSUMPTION						
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
ALKALI CHEMICALS							
SODA ASH	1995.06	2111.58	2155.46	2753.77	2201.45	2288.23	2261.40
CAUSTIC SODA	1721.79	1793.86	1841.35	1913.93	2033.78	2161.92	2145.98
LIQUID CHLORINE	1055.91	1149.63	1167.84	1288.08	1263.76	1381.40	1397.63
TOTAL	**4772.77**	**5055.08**	**5164.65**	**5955.79**	**5498.99**	**5831.55**	**5805.01**
Other INORGANIC CHEMICALS							
ALUMINIUM FLOURIDE	14.08	16.15	10.79	20.41	20.12	22.71	29.90
CALCIUM CARBIDE	115.85	93.64	97.06	110.08	140.93	153.41	137.16
CARBON BLACK	284.57	321.27	280.04	353.44	393.12	410.43	353.03
POTASSIUM CHLORATE	2.24	2.41	2.80	2.14	-4.29	-5.52	3.18
SODIUM CHLORATE	5.38	7.70	8.40	9.40	14.06	13.92	19.02
TITANIUM DIOXIDE	46.21	51.24	55.17	59.03	66.78	64.65	60.50
RED PHOSPHORUS	0.53	0.51	0.46	0.24	0.32	0.18	0.39
TOTAL	**468.86**	**492.92**	**454.72**	**554.74**	**631.04**	**659.78**	**603.19**
ORGANIC CHEMICALS							
ACETIC ACID	283.89	323.01	344.50	335.96	397.49	437.40	475.78
ACETIC ANHYDRIDE	23.18	28.29	26.85	28.74	29.58	28.89	32.01
ACETONE	66.32	73.07	81.66	100.61	103.90	111.94	113.25
PHENOL	100.64	149.19	147.87	152.14	137.43	175.73	165.47
METHANOL	652.33	814.94	739.50	787.38	922.28	1108.81	1293.27
FORMALDEHYDE	180.37	197.20	195.23	247.29	233.03	237.49	229.13
NITROBENZENE	25.70	29.73	28.56	23.48	14.73	13.24	13.89
CITRIC ACID	6.84	4.22	2.87	13.67	25.00	30.99	34.04
MALEIC ANHYDRIDE	11.21	22.03	17.13	21.05	22.05	27.38	35.71
PENTA-ERITHRITOL	14.73	17.77	18.15	19.48	17.53	19.79	19.35
ANILINE	47.59	48.69	49.97	50.98	56.20	61.42	47.51
CHLORO METHANES	79.13	87.66	90.21	93.66	92.05	87.82	96.27

Table-9 : Consumption of Major Chemicals (Product-wise)

(000'MT)

PRODUCT	CONSUMPTION						
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
ISOBUTYLE	1.76	2.31	1.27	1.33	0.12	-3.98	-4.18
ONCB	11.43	10.24	15.92	13.46	18.03	18.82	20.80
PNCB	27.10	17.60	21.31	20.99	16.81	20.57	24.92
MEK	11.12	12.72	14.72	14.50	17.68	21.88	20.37
ACETALDEHYDE	126.15	127.52	139.80	159.21	163.88	182.37	107.89
ETHANOLAMINES	11.00	11.82	15.82	8.20	7.82	9.82	11.74
ETHYL ACETATE	40.12	44.09	58.03	64.63	76.63	58.19	69.19
MENTHOL	0.00	-3.69	-4.61	-8.31	-7.54	-10.66	-6.89
ORTHO NITRO TOLUENE	4.42	6.83	6.37	6.75	5.85	5.69	8.81
TOTAL	**1725.01**	**2025.23**	**2011.10**	**2155.19**	**2350.54**	**2643.58**	**2808.31**
PESTICIDES AND INSECTICIDES							
D.D.T.	2.93	3.57	2.27	3.23	0.60	0.93	3.31
MALATHION	2.67	3.95	4.71	2.74	4.30	3.97	2.00
PARATHION (METHYL)	2.38	2.23	2.12	1.34	0.91	-0.18	0.00
DIMETHOATE	0.69	0.86	0.87	0.78	0.64	0.42	0.56
D.D.V.P.	2.22	3.11	4.37	3.39	2.61	2.04	2.73
QUINALPHOS	1.59	1.76	0.59	0.41	0.47	0.43	0.89
MONOCROTOPHOS	6.52	8.12	9.51	4.90	4.91	5.12	4.57
PHOSPHAMIDON	0.84	0.36	0.39	0.54	0.37	0.71	0.85
PHORATE	3.16	5.08	3.64	6.22	5.71	3.23	2.03
ETHION	1.68	2.83	1.79	1.51	1.80	0.77	0.16
ENDOSULPHAN	-0.78	-1.74	-1.55	-0.11	0.72	-0.10	4.26
FENVALERATE	0.52	0.82	0.63	0.57	0.52	0.72	0.49
CYPERMETHRIN	-2.02	-1.28	-0.84	-4.29	-7.28	-7.84	4.03
ANILOPHOS	0.35	0.47	0.36	0.20	0.02	0.00	0.00
ACEPHATE	4.84	3.99	6.14	8.48	8.33	10.06	9.65
CHLORPYRIPHOS	6.40	8.11	9.13	4.94	4.72	4.54	3.89
PHOSALONE	0.44	0.49	0.54	0.27	0.25	0.50	0.00
METASYSTOX	0.51	0.50	0.56	0.32	0.63	0.00	0.00
FENTHION	0.90	0.11	0.15	0.16	-0.20	-0.01	0.00

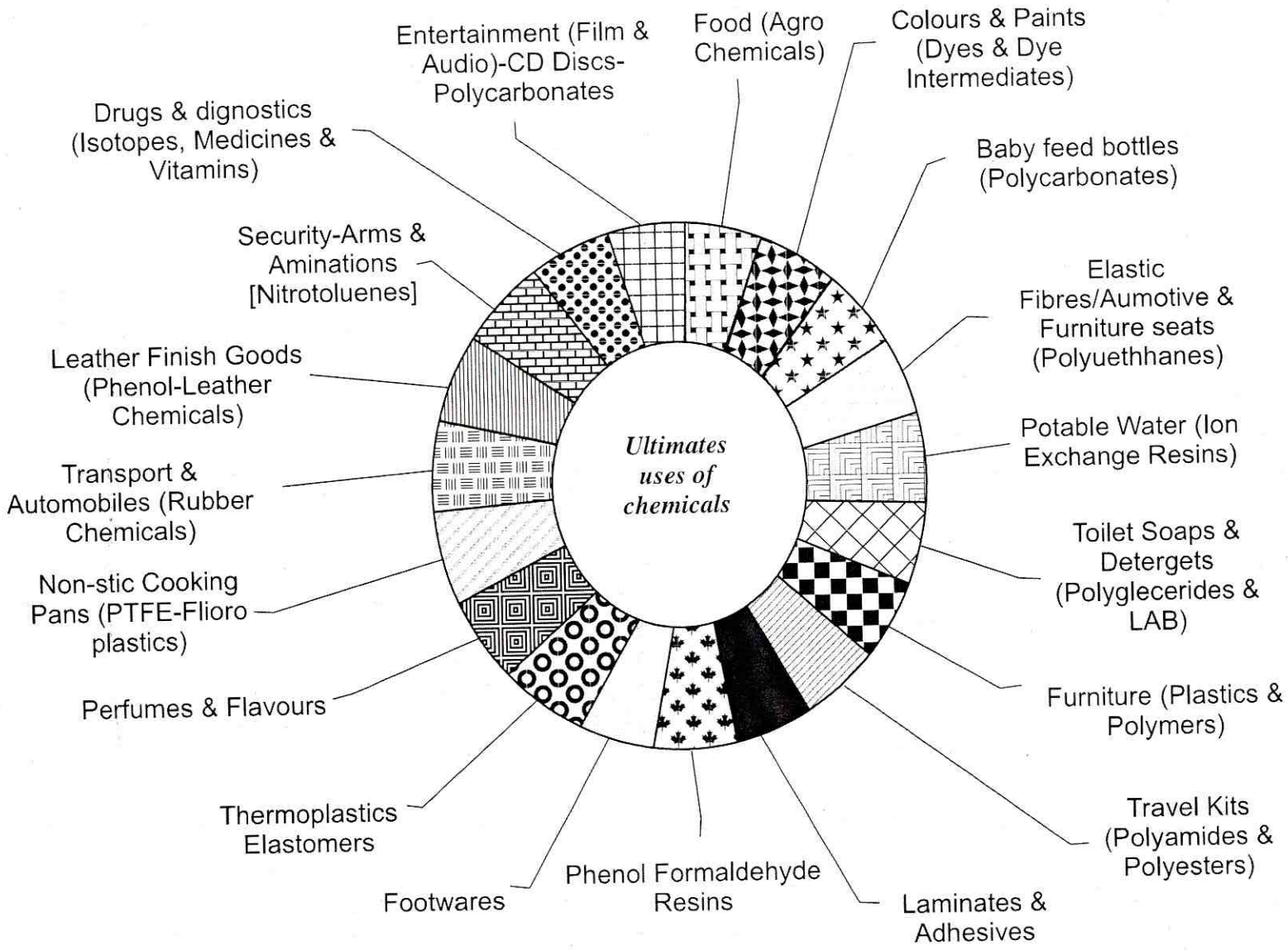
Table-9 : Consumption of Major Chemicals (Product-wise)

(000'MT)

PRODUCT	CONSUMPTION						
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09
TRIAZOPHOS	1.15	2.11	2.94	2.85	1.84	1.84	2.06
LINDANE	0.27	0.37	0.39	0.12	0.13	0.06	0.00
TEMEPHOS	0.12	0.09	0.25	0.03	0.10	0.08	0.13
DELTAMETHRIN	0.21	0.18	0.39	0.31	0.34	0.26	0.03
ALPHAMETHRIN	0.19	0.21	0.33	0.25	0.17	0.21	0.02
CAPTAN & CAPTAFOL	0.78	0.84	0.85	0.01	0.19	0.00	0.00
ZIRAM(THIO BARBAMATE)	-0.07	0.28	0.29	0.11	0.24	0.19	0.07
CARBENDZIM(BAVISTIN)	1.26	0.84	0.73	0.43	0.14	0.07	0.19
CALIXIN	0.05	0.05	0.07	0.04	0.03	0.00	0.00
MANCOZAB	10.19	17.25	20.80	18.86	22.88	27.12	35.34
COPPER-OXYCHLORIDE	0.24	0.15	-0.35	-0.41	-0.09	-0.20	0.00
2, 4-D	-0.75	-0.53	-1.21	-3.81	-2.41	-0.47	0.21
BUTACHLOR	0.24	0.33	0.26	0.25	0.18	0.03	0.12
ISOPROTURON	1.46	2.38	2.68	3.36	1.99	1.95	2.98
GLYPHOSATE	0.11	0.31	1.02	1.52	2.10	1.52	2.33
DIURON	0.05	0.06	0.00	0.00	0.00	0.08	0.01
ATRAZIN	0.20	0.06	0.04	0.00	0.09	0.22	0.26
FLUCHLORALIN	0.19	0.16	0.17	0.12	0.10	0.00	0.00
ZINC PHOSPHIDE	0.24	0.23	0.31	0.25	0.81	0.46	0.38
ALUMINIUM	1.01	0.36	-0.05	0.22	0.10	0.22	1.72
METHYL BROMIDE	0.11	-2.00	-1.05	0.05	0.71	0.13	0.00
DICOFOL	0.10	0.09	0.07	0.04	0.05	0.09	0.09
TOTAL	**53.19**	**67.15**	**74.31**	**60.17**	**59.73**	**59.13**	**85.34**

Consumption = Production + Imports - Exports

Figure 3 - Chemical Industry - Output destinations



Section-III

Petrochemical Sector

Indian Petrochemicals Industry

Petrochemicals are derived from various chemical compounds, mainly hydrocarbons which, in turn, are derived from crude oil and natural gas. Among the various fractions produced by distillation of crude oil, petroleum gases, naphtha, kerosene and gas oil are the main feed-stocks for the petrochemical industry. Ethane and natural gas liquids obtained from natural gas are the other important feed stocks used in the petrochemical industry. Olefins (Ethylene, Propylene & Butadiene) and Aromatics (Benzene, Toluene & Xylenes) are the major building blocks from which most petrochemicals are produced.

Petrochemical manufacturing involves manufacture of building blocks by cracking or reforming operation, conversion of building blocks into intermediates such as fibre intermediates (Acrylonitrile, Caprolactum, Purified Terephthalic Acid, Mono Ethylene Glycol); precursors (Styrene, Ethylene Dichloride, Vinyl Chloride Monomer etc.) and other chemical intermediates, production of synthetic fibres, plastics, elastomers, other chemicals and processing of plastics to produce consumer and industrial products. The Petrochemical sector has a significant growth potential and plays a vital role in economic growth & development of Indian petrochemical industry. The major players in the fields of petrochemicals include Reliance Industry Ltd. (RIL), Gas Authority of India Ltd. (GAIL), Haldia Petrochemicals Ltd. (HPL), Indian Oil Corporation Ltd. (IOCL) etc.

The per capita plastics consumption in India is approximately 5 kgs, much lower than the global average of 25 kgs and 30 kgs in China. The low level of per capita plastics consumption in the country is indicative of the immense growth potential of the Indian plastics industry.

Application of Petrochemicals

Petrochemical products find applications across almost all sectors of the economy and touch every sphere of modern life. Use of petrochemical products has multiple benefits both for the individual and the society at large by improving the quality of life. Plastic processing Industry constitute one of the major shares of Indian petrochemical industry which cater to the needs of major sectors namely Agriculture, Infrastructure, Public Health, Conservation, Employment and Environment. Among all the petrochemicals, use of plastics encompasses every sphere of life. Today Plastics find major applications in a wide array of sectors. Some of the key applications are packaging for preservation of food articles and medicines, moulded industrial and household items including furniture; electrical, including appliances, electronics including computer hardware and entertainment gadgets. It also has wide usage globally in transportation of liquids and gas through pipelines and in construction industry for doors, windows and conduit pipes.

Petrochemical products namely synthetic fibers cater to the clothing needs of mankind and are used in both apparel and non-apparel applications. Polymers find major applications in packaging for preservation of food articles, moulded industrial and home appliances, furniture, extruded pipes etc. Synthetic rubbers are used for making various types of tyres and non-tyre rubber goods and supplement natural rubber. Surfactant intermediates are used in the manufacture of detergents.

Petrochemical downstream processing units are major contributors to employment generation and entrepreneurial development, thereby serving a vital need of the economy. Starting from the raw material production to conversion into finished products, the employment potential (both direct and indirect) is generated in a cascading manner.

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Table-10 : Performance of Major Petrochemicals at a Glance

(Figures in 000'MT)

GROUP	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 *
1	2	3	4	5	6	7	8	9
1. Synthetic Fibres								
Capacity	1982	2073	2210	2281	3102	3431	3461	3511
Production	1755	1868	1875	1906	2250	2524	2343	2601
Capacity Utilisation (%)	88.5	90.1	84.9	83.6	72.5	73.6	67.7	74.1
Imports	189	155	193	162	157	140	120	
Exports	144	141	178	175	321	393	239	
Consumption@	1800	1882	1890	1893	2086	2271	2224	
2. Polymers								
Capacity	4316	4431	4614	4710	5187	5777	5720	6170
Production	4175	4499	4776	4768	5183	5304	5060	4791
Capacity Utilisation (%)	96.7	101.5	103.5	101.2	99.9	91.8	88.5	77.6
Imports	381	450	416	722	711	1105	1230	
Exports	761	843	1015	695	876	627	353	
Consumption@	3795	4106	4177	4795	5018	5782	5937	
3. Elastomers								
Capacity	145	147	147	148	148	186	186	186
Production	82	87	97	110	101	106	96	106
Capacity Utilisation (%)	56.4	59.3	65.9	74.7	68.7	56.8	51.7	56.8
Imports	123	179	210	240	286	290	132	
Exports	8	8	7	22	16	14	12	
Consumption@	197	258	300	328	371	382	216	
4. Surfactants								
Capacity	421	426	566	578	578	611	592	637
Production	447	453	488	555	556	585	552	618
Capacity Utilisation (%)	106.4	106.6	86.3	96.2	96.3	95.7	93.1	97.0
Imports	0	3	10	6	26	49	76	
Exports	58	42	67	108	127	130	90	
Consumption@	389	414	431	453	455	504	538	
5. Performance Plastics								
Capacity	115	115	130	137	163	202	202	202
Production	95	99	113	127	133	157	141	172
Capacity Utilisation (%)	82.5	86.5	86.9	92.8	81.5	77.8	70.1	85.1
Imports	20	31	30	37	45	57	67	
Exports	1	3	3	5	6	9	8	
Consumption@	114	127	140	159	172	205	200	
Total Major Petrochemicals (1 to 5)								
Capacity	6978	7191	7666	7853	9177	10207	10160	10707
Production	6553	7007	7349	7467	8224	8674	8193	8287
Capacity Utilisation (%)	93.9	97.4	95.9	95.1	89.6	85.0	80.6	77.4
Imports	713	818	859	1167	1225	1641	1625	
Exports	972	1037	1270	1005	1346	1173	702	
Consumption@	6294	6788	6938	7629	8103	9142	9116	

Consumption = Production + Import - Export

** : Exports and Imports are for the period April-Dec.,09*

Table-11 : Production, Capacity Utilisation & Growth of Major Petrochemicals (Group-wise) during 2002-2010

(000' MT , %)

Major Groups	Installed Capacity			Production								Growth in Prodn. (%)		Cap. Utilis. in 2009-10
	2002-03	2008-09	2009-10	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CARG col 12 / col.5	col.12 / col.11	Col.12 / Col.4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I : SYNTHETIC FIBRES	1982	3461	3511	1755	1868	1875	1906	2250	2524	2343	2601	5.78	10.98	74.07
II : POLYMERS	4316	5720	6170	4175	4499	4776	4768	5183	5304	5060	4791	1.98	-5.33	77.64
III : ELASTOMERS	145	186	186	82	87	97	110	101	106	96	106	3.79	10.03	56.91
IV : SYNTH. DETERGENT INTERMEDIATE	421	592	637	447	453	488	555	556	585	552	618	4.72	12.03	97.02
V : PERFORMANCE PLASTICS	115	202	202	95	99	113	127	133	157	141	172	8.86	21.36	84.90
MAJOR PETROCHEMICALS (I TO V)	**6978**	**10161**	**10706**	**6553**	**7007**	**7349**	**7467**	**8224**	**8674**	**8193**	**8287**	**3.41**	**1.15**	**77.40**

CARG : Compound Annual Rate of Growth

Table-12 : Production, Capacity Utilisation & Growth of Major Petrochemicals (Product-wise) during 2002-2010

(000' MT , %)

Major Groups / Products	Installed Capacity			Production								Growth in Prodn. (%)		Cap. Utili in 09-10
	2002-03	2008-09	2009-10	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CARG col 12/col.5	col.12/col.11	Col.12/Col.4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
I : SYNTHETIC FIBRES / YARN														
1. Polyester Filament Yarn (PFY) (i)	1081	1848	1899	946	1003	970	1015	1194	1350	1262	1345	5.14	6.56	70.80
2. Nylon Filament Yarn (NFY) (ii)	28	36	36	30	31	37	40	32	28	28	30	0.25	7.29	84.09
3. Nylon Industrial Yarn (NIY) (ii)	50	77	77	51	56	48	55	72	84	69	88	8.00	28.35	114.84
4. Polypropylene Filament Yarn (PPFY)(ii)	22	16	15	15	15	11	9	10	10	9	9	-7.74	-5.80	57.39
Sub Total Yarn (1+2+3+4)	**1181**	**1977**	**2027**	**1043**	**1105**	**1066**	**1119**	**1307**	**1471**	**1368**	**1472**	**5.04**	**7.59**	**72.61**
5. Acrylic Fibre (Inc. Dry Spun) (AF)	138	143	143	105	117	128	114	107	85	78	91	-2.01	17.09	63.59
6. Polyester Staple Fibre (PSF)	610	1266	1266	575	604	639	623	785	919	843	980	7.93	16.30	77.43
7. Polypropylene Staple Fibre (PPSF)	7	8	8	3	3	3	3	4	3	3	3	4.18	-2.59	40.88
8. Polyester Staple Fibrefil (PSFF)	46	67	67	30	39	40	47	47	45	51	54	9.10	5.66	81.04
Total Synth. Fibre / Yarn	**1982**	**3461**	**3511**	**1755**	**1868**	**1875**	**1906**	**2250**	**2524**	**2343**	**2601**	**5.78**	**10.98**	**74.07**
II : POLYMERS														
1. Linear Low Density Polyethylene (LLDPE)	No separate Capacity			500	606	650	689	772	837	817	683	4.55	-16.39	NA
2. High Density Polyethylene (HDPE)	No separate Capacity			978	958	1035	1035	958	974	942	856	-1.88	-9.06	NA
LLDPE/HDPE (Combined) iii	**1520**	**1865**	**2085**	**1478**	**1564**	**1685**	**1723**	**1730**	**1811**	**1758**	**1539**	**0.58**	**-12.46**	**73.82**
3. Low Density Polyethylene (LDPE)	200	200	200	192	184	205	201	195	198	191	193	0.07	0.73	96.30
4. Polyestyrene (PS)	414	462	462	224	274	275	311	285	274	240	270	2.65	12.32	58.34
5. Polypropylene (PP)	1365	2035	2076	1430	1567	1690	1541	2001	1978	1771	1617	1.77	-8.69	77.88
6. Poly Vinyl Chloride (PVC)	780	1105	1279	822	878	885	953	926	998	1051	1110	4.39	5.58	86.75
7. Expandable Polystyrene (EX-PS)	37	53	68	29	31	36	39	46	44	49	63	11.61	28.12	92.83
Total Polymers	**4316**	**5720**	**6170**	**4175**	**4499**	**4776**	**4768**	**5183**	**5304**	**5060**	**4791**	**1.98**	**-5.33**	**77.64**

Table-12 : Production, Capacity Utilisation & Growth of Major Petrochemicals (Product-wise) during 2002-2010

(000' MT , %)

Major Groups / Products	Installed Capacity			Production								Growth in Prodn. (%)		Cap. Utili in 09-10
	2002-03	2008-09	2009-10	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CARG col 12/col.5	col.12/col.11	Col.12/Col.4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
III : ELASTOMERS														
1. Styrene Butadiene Rubber (SBR)	62	62	62	16	19	16	15	13	17	13	19	2.46	44.12	31.48
2. Poly Butadiene Rubber (PBR)	50	74	74	54	56	64	67	72	74	72	73	4.51	1.38	98.61
3. Nitrile Butadiene Rubber (NBR)	9	27	27	6	7	9	9	10	13	11	13	10.82	25.31	49.29
4. Ethyl Propylene Dimers (EPDM)	10	10	10	5	5	4	4	4	1	0	0	-100.00	0.00	0.00
5. Ethyl Vinyl Acetate (EVA)	14	13	13	0	0	4	14	3	0	0	0	0.00	0.00	0.00
Total Elastomers	**145**	**186**	**186**	**82**	**87**	**97**	**110**	**101**	**106**	**96**	**106**	**3.79**	**10.03**	**56.91**
IV : SYNTHETIC DETERGENT INTERMEDIATES														
1. Linear Alkyl Benzene (LAB)	314	472	497	375	382	409	468	460	471	434	464	3.07	6.79	93.33
2. Ethylene Oxide (EO)	107	120	140	72	71	79	88	96	114	117	154	11.45	31.40	110.14
Total Synth. Detergent Intermediates	**421**	**592**	**637**	**447**	**453**	**488**	**555**	**556**	**585**	**552**	**618**	**4.72**	**12.03**	**97.02**
V : PERFORMANCE PLASTICS														
1. ABS Resin	60	86	86	49	48	62	76	74	78	68	84	7.87	22.94	97.82
2. Nylon-6 & Nylon 66	11	16	16	9	11	13	13	15	14	12	13	5.65	7.68	82.78
3. Polymethyl Methacrylate (PMMA)	4	4	4	3	3	2	2	3	3	2	3	0.17	7.88	65.38
4. Styrene Acrylonitrile (SAN)	40	96	96	34	37	36	36	41	61	58	72	11.41	22.95	74.50
Total Performance Plastics	**115**	**202**	**202**	**95**	**99**	**113**	**127**	**133**	**157**	**141**	**172**	**8.86**	**21.36**	**84.90**
TOTAL MAJOR PETROCHEMICALS (I+II+III+IV+V)	**6978**	**10161**	**10706**	**6553**	**7007**	**7349**	**7467**	**8224**	**8674**	**8193**	**8287**	**3.41**	**1.15**	**77.40**

Table-12 : Production, Capacity Utilisation & Growth of Major Petrochemicals (Product-wise) during 2002-2010

(000' MT , %)

Major Groups / Products	Installed Capacity			Production								Growth in Prodn. (%)		Cap. Utili in 09-10
	2002-03	2008-09	2009-10	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CARG col 12/col.5	col.12/col.11	Col.12/Col.4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
B : INTERMEDIATES														
I : FIBRE INTERMEDIATES														
1. Acrylonitrile (ACN)	30	41	41	33	36	39	33	37	39	30	39	2.55	29.57	96.25
2. Caprolactum	120	120	120	100	110	122	117	121	86	84	123	2.96	45.82	102.63
3. Dimethyl Terephthalate (DMT)	300	300	300	199	217	239	197	28	4	0	0	-100.00	0.00	0.00
4. Mono Ethylene Glycol (MEG)	590	820	820	611	652	714	881	872	923	783	738	2.73	-5.73	90.04
5. Purified Terephthalic Acid (PTA)	1325	3073	3873	1705	1676	1738	1734	2379	2059	2154	2985	8.33	38.59	77.08
Total Fibre Intermediates	**2365**	**4354**	**5154**	**2648**	**2691**	**2851**	**2963**	**3437**	**3111**	**3052**	**3886**	**5.63**	**27.33**	**75.40**
II : BUILDING BLOCKS														
OLEFINS														
1. Ethylene	2447	2841	3021	2305	2421	2645	2719	2683	2810	2639	2515	1.26	-4.67	83.27
2. Propylene	1541	2270	2387	1589	1746	1892	1745	2089	2157	1887	1859	2.27	-1.52	77.87
3. Butadiene	139	276	295	69	114	131	207	223	244	214	205	16.98	-3.88	69.64
Total Olefins	**4127**	**5387**	**5703**	**3962**	**4282**	**4668**	**4671**	**4995**	**5211**	**4740**	**4580**	**2.09**	**-3.38**	**80.30**
AROMATICS														
1. Benzene	686	1111	1158	595	608	640	686	886	867	880	823	4.74	-6.47	71.05
2. Toluene	280	281	281	163	166	177	159	147	142	139	137	-2.48	-1.55	48.62
3. Mixed Xylene	165	165	165	52	56	63	56	58	74	78	55	0.61	-29.56	33.10
4. Ortho-xylene	204	474	474	192	207	146	242	431	269	224	358	9.33	59.61	75.52
5. Paraxylene	1724	2296	2296	1424	1389	1425	1394	1925	2137	2155	2223	6.56	3.16	96.82
Total Aromatics	**3059**	**4327**	**4374**	**2426**	**2425**	**2451**	**2537**	**3447**	**3488**	**3475**	**3595**	**5.78**	**3.45**	**82.19**

Table-12 : Production, Capacity Utilisation & Growth of Major Petrochemicals (Product-wise) during 2002-2010

(000' MT , %)

Major Groups / Products	Installed Capacity			Production								Growth in Prodn. (%)		Cap. Utili in 09-10
	2002-03	2008-09	2009-10	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	CARG col 12/col.5	col.12/col.11	Col.12/Col.4
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C : Other Petro-based Chemicals														
1. Butanol	20	16	16	16	12	13	15	14	14	11	8	-9.49	-31.85	48.83
2. C4-Raffinate	225	225	225	172	164	121	105	76	77	55	65	-13.01	18.53	28.79
3. Di-Ethylene Glycol	44	52	58	42	46	48	58	60	68	58	69	7.29	18.50	119.17
4. Diacetone Alcohol	7	9	9	7	9	9	9	9	9	8	9	2.71	15.55	97.68
6. 2-Ethyl Hexanol	35	25	25	22	26	27	24	24	27	23	16	-4.32	-29.43	63.68
7. Epichlorohydrine	10	10	10	8	9	11	11	10	9	8	7	-1.74	-7.51	72.46
9. Methyl Methacrylate (MMA)	4	4	4	4	4	5	4	4	4	3	5	3.62	32.64	105.14
11. Phthalic Anhydride (PAN)	270	298	298	197	181	183	192	223	244	207	232	2.36	12.06	77.69
12. Propylene Oxide (PO)	24	27	27	21	25	25	27	28	28	29	32	5.83	10.51	117.17
13. Propylene Glycol (PG)	13	15	15	12	13	14	16	16	17	16	19	6.86	16.59	124.89
POLYVINYL ACETATE RESIN	20	20	20	0	0	10	12	10	11	10	4	0.00	-60.48	20.03
15. Vinyl Acetate Monomer (VAM)	60	48	48	26	26	29	26	24	23	24	0	-100.00	-100.00	0.00

(i) : Includes capacity of all the units producing PFY, NFY, NIY and PPFY under broadbanding as Synthetic Filament Yarn

(ii) : Independent capacity of units producing only NFY, NIY and PPFY.

(iii) : Combined capacity to produce both LLDPE and HDPE and hence capacity utilisation can not be worked out.

Table-13 : Production & Growth of Major Petrochemicals (Group-wise) during Q1 (2010-11)

(000'MT ; %)

Group	April-June,10	April-June,09	Growth (%)
I. SYNTHETIC FIBRES	688.78	647.4	**6.39**
II. POLYMERS	1202.42	1119.87	**7.37**
III. SYNTHETIC RUBBER	26.85	24.49	**9.61**
IV. SYNTHETIC DETERGENT INTERMEDIATES	136.09	145.56	**-6.51**
V. PERFOR MANCE PLASTICS	46.02	41.76	**10.19**
MAJOR PETROCHEMICALS (I to V)	**2100.16**	**1979.08**	**6.12**

Table-14 : Production & Growth of Major Petrochemicals (Product wise) during Q1 (2010-11)

(000'MT ; %)

Group / Product	April - June		Growth
	(2010 - 11)	(2009 - 10)	
I : SYNTHETIC FIBRES			
ACRYLIC FIBRE	18.36	24.54	-25.21
POLYESTER STAPLE FIBREFILL			
NYLON FILAMENT YARN	7.94	7.27	9.17
NYLON INDUSTRIAL YARN/TYRE CORD	21.80	21.52	1.32
POLYESTER FILAMENT YARN	371.04	337.90	9.81
POLYESTER STAPLE FIBRE	252.20	240.32	4.94
POLYPROPYLENE FILAMENT YARN	1.79	2.50	-28.38
POLYPROPYLENE STAPLE FIBRE	0.88	0.76	15.77
TOTAL	**688.78**	**647.40**	**6.39**
II : POLYMERS			
LOW DENSITY POLYETHYLENE	31.28	46.53	-32.77
HIGH DENSITY POLYTHYLENE	226.40	202.87	11.60
POLYESTYRENE	76.47	64.82	17.98
POLYPROPYLENE (INC. CO-POLYMER)	395.72	375.79	5.30
EXPANDABLE POLYESTYRENE	18.44	14.89	23.84
POLY VINYL CHLORIDE	292.10	236.70	23.40
LINEAR LOW DENSITY POLYTHYLENE	162.02	178.27	-9.12
TOTAL	**1202.42**	**1119.87**	**7.37**

Table-14 : Production & Growth of Major Petrochemicals (Product-wise) during Q1 (2010-11)

(000'MT ; %)

Group / Product	April - June (2010 - 11)	April - June (2009 - 10)	Growth
III : SYNTHETIC RUBBER			
STYRENE BUTADIENE RUBBER	4.53	4.13	9.76
POLY BUTADIENE RUBBER	19.67	16.40	19.95
NITRILE BUTADIENE RUBBER	2.64	3.96	-33.37
TOTAL	**26.85**	**24.49**	**9.61**
IV : SYNTHETIC DETERGENT INTERMEDIATES			
LINEAR ALKYL BENZENE	101.72	107.88	-5.71
ETHYLENE OXIDE	34.37	37.69	-8.80
TOTAL	**136.09**	**145.56**	**-6.51**
V : PERFOR MANCE PLASTICS			
ABS RESIN	21.06	19.96	5.52
NYLON-6	3.21	2.42	32.96
POLYMETHYL METHACRYLATE	0.63	0.65	-2.47
STYRENE ACRYLONITRILE	20.76	18.46	12.46
NYLON 6,6	0.36	0.28	26.24
TOTAL	**46.02**	**41.76**	**10.19**
MAJOR PETROCHEMICALS (I TO V)	**2100.15**	**1979.09**	**6.12**

Table-15 : Installed Capacities of Selected Petrochemicals (2002-03 to 2009-10)

(000'MT)

GROUP / PRODUCT	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
A : BASIC PETROCHEMICALS								
I : SYNTHETIC FIBRES	1982	2073	2210	2281	3102	3431	3461	3511
II : POLYMERS	4316	4431	4614	4710	5187	5777	5720	6170
III : ELASTOMERS	145	147	147	148	148	186	186	186
IV : SYNTH. DETERGENT INTERMEDIATE	421	426	566	578	578	611	592	637
V : PERFORMANCE PLASTICS	115	115	130	137	163	202	202	202
MAJOR PETROCHEMICALS (I TO V)	**6978**	**7191**	**7666**	**7853**	**9177**	**10207**	**10160**	**10707**
B : INTERMEDIATES								
VI : FIBRE INTERMEDIATES	2365	2510	2813	2860	4181	4368	4354	5154
VII : OLEFINS	4127	4181	4203	4375	4475	5517	5388	5704
VIII : AROMATICS	3059	3059	3139	3142	3528	4345	4327	4374

Table-16 : Consumption of Major Petrochemicals (Group-wise)

(Figures in 000'MT)

GROUP	CONSUMPTION*							
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 (April-Dec)
A : PETROCHEMICALS								
I : SYNTHETIC FIBRES	1800	1882	1890	1893	2086	2270	2225	1794
II : POLYMERS	3796	4107	4177	4795	5018	5782	5937	4680
III : ELASTOMERS (SYNTHETIC RUBBER)	196	258	300	328	372	433	371	346
IV : SYNTHETIC DETERGENT INTERMEDIATES	390	414	431	453	455	504	538	468
V : PERFOR MANCE PLASTICS	114	128	140	159	172	204	200	186
MAJOR PETROCHEMICALS (I to V)	**6295**	**6788**	**6939**	**7629**	**8104**	**9193**	**9270**	**7474**
B : INTERMEDIATES								
FIBRE INTERMEDIATES	2523	2767	2836	3082	3760	3488	3675	3768
OLEFINS	3981	4320	4630	4632	4899	5077	4644	3361
AROMATICS	2519	2233	2312	2200	2546	2727	2878	2386

** Consumption = Production + Imports - Exports*

Table-17 : Consumption of Major Petrochemicals (Product-wise)

(Figures in MT)

Product	CONSUMPTION*							
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 * (April-Dec)
A: BASIC PETROCHEMICALS								
I : SYNTH. FIBRES								
ACRYLIC FIBRE	116388	112121	124258	114388	110056	88953	85452	73449
POLYESTER STAPLE FIBREFILL	29506	38835	39820	47432	47078	44823	51390	40291
NYLON FILAMENT YARN	29414	27603	45310	46257	40647	28982	30490	23258
NYLON INDUSTRIAL YARN/TYRE CORD	63594	68763	64828	67965	81201	85423	68631	66241
POLYESTER FILAMENT YARN	967717	1029539	992508	1004537	1117745	1218332	1252897	956876
POLYESTER STAPLE FIBRE	571182	584010	603982	596337	674675	789569	723005	624222
POLYPROPYLENE FILAMENT YARN	20003	18165	16195	13518	11689	11248	10278	7259
POLYPROPYLENE STAPLE FIBRE	2222	2629	3258	2847	3340	3134	2650	2264
TOTAL I	**1800026**	**1881665**	**1890159**	**1893281**	**2086431**	**2270464**	**2224793**	**1793860**
II : POLYMERS								
LOW DENSITY POLYETHYLENE	199358	209216	200559	232242	253599	269237	272554	261624
HIGH DENSITY POLYTHYLENE	894690	833905	760660	888139	834137	1094152	1114929	957761
POLYESTYRENE	164240	214514	210662	204077	201407	211869	193997	167880
POLYPROPYLENE (INC. CO-POLYMER)	1128801	1178815	1314609	1445030	1668750	1824952	1900732	1197154
EXPANDABLE POLYESTYRENE	17622	26713	37778	36842	42402	51013	53037	48285
POLY VINYL CHLORIDE	878418	969764	960122	1199052	1148849	1348874	1388161	1232134
LINEAR LOW DENSITY POLYTHYLENE	512550	674007	692669	789782	869073	981498	1013418	815376
TOTAL II	**3795679**	**4106934**	**4177059**	**4795164**	**5018217**	**5781595**	**5936828**	**4680214**

Table-17 : Consumption of Major Petrochemicals (Product-wise)

(Figures in MT)

Product	CONSUMPTION*							
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 * (April-Dec)
III : ELASTOMERS (SYNTHETIC RUBBER)								
STYRENE BUTADIENE RUBBER	63891	77733	88535	72810	105500	122048	104361	114256
POLY BUTADIENE RUBBER	69992	71738	79592	79494	94605	102591	94010	90632
ETHYL PROPYLENE DIMERS	6415	11223	10888	12329	14972	16231	13498	15235
ETHYL VINYL ACETATE	13397	28770	51176	103319	86776	115202	88423	54849
NITRILE BUTADIENE RUBBER	12793	15633	20989	20455	23341	25133	17366	18733
BUTYL RUBBER	29478	52421	49217	40012	46523	51875	52881	52654
TOTAL III	**195966**	**257518**	**300397**	**328419**	**371717**	**433080**	**370539**	**346359**
IV : SYNTH. DETERGENT INTERMED.								
LINEAR ALKYL BENZENE	317370	342974	352035	365895	358743	389949	420264	353607
ETHYLENE OXIDE	72170	71362	79118	87515	96583	114058	117334	114195
TOTAL IV	**389540**	**414336**	**431153**	**453410**	**455326**	**504007**	**537598**	**467802**
V : PERFOR MANCE PLASTICS								
ABS RESIN	54216	57473	70138	81736	84923	90495	87965	84108
NYLON-6	18989	22786	25390	29989	33113	40260	43670	40330
POLYMETHYL METHACRYLATE	4837	6473	5605	6924	7420	4509	3032	3759
STYRENE ACRYLONITRILE	35095	39972	38261	39088	45714	67630	64221	57172
NYLON 6,6	664	813	1028	1073	1274	1281	928	859
TOTAL V	**113801**	**127517**	**140422**	**158810**	**172444**	**204175**	**199816**	**186228**
MAJOR PETROCHEMICALS (I TO V)	**6295012**	**6787970**	**6939190**	**7629084**	**8104135**	**9193321**	**9269574**	**7474463**

** Consumption = Production + Imports - Exports*

Table-18: Consumption of Major Petrochemicals (Intermediates)

(Figures in MT)

Product	CONSUMPTION*							
	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 * (April-Dec)
INTERMEDIATES								
FIBRE INTERMEDIATES								
ACRYLONITRILE	103359	134299	94807	103286	120836	120761	109148	83224
CAPROLACTUM	92110	106764	100902	108782	114235	108591	93669	90945
DIMETHYL TEREPHTHALATE	186086	228470	241158	202744	37871	7323	4088	2788
MONO EHYLENE GLYCOL	628763	694631	679385	838445	965900	1133197	1173060	1069425
PURIFIED TEREPHTHALIC ACID	1512506	1603296	1719544	1829178	2521246	2117872	2295406	2522030
Sub-TOTAL (FIBRE INTERMEDIATES)	**2522824**	**2767460**	**2835796**	**3082435**	**3760088**	**3487744**	**3675371**	**3768412**
OLEFINS								
BUTADIENE	68540	114716	85672	121740	110069	115521	97546	73133
ETHYLENE	2324323	2459138	2652528	2740663	2699424	2811655	2658655	1922672
PROPYLENE	1588542	1746343	1891997	1769804	2089330	2150063	1887524	1365441
Sub-TOTAL (Olefins)	**3981405**	**4320197**	**4630197**	**4632207**	**4898823**	**5077239**	**4643725**	**3361246**
AROMATICS								
BENZENE	533537	581052	456197	466163	449679	563540	521770	417146
MIXED XYLENE	46860	8464	63377	44127	26680	-120735	-32520	13116
ORTHO-XYLENE	191418	159528	208049	180615	230043	245101	207167	169592
TOLUENE	182377	195178	211600	242482	275294	282726	282465	250507
PARAXYLENE	1564505	1289160	1373187	1267082	1563814	1756281	1898770	1535142
Sub-TOTAL (AROMATICS)	**2518697**	**2233382**	**2312410**	**2200469**	**2545510**	**2726913**	**2877652**	**2385503**

** Consumption= Production + Imports - Exports*

Section-IV

Foreign Trade

Table-19: Exports & Imports of Major Chemicals and Petrochemicals At A Glance

(Rs. Crore, CARG : %)

Items/Years	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 (upto Dec.,09)	CARG	
									(08-09 / 02 03)	(08-09 / 07 08)
A: Total National Exports	**255137**	**293367**	**375340**	**456418**	**571779**	**655864**	**840755**	**599245**	**21.99**	**28.19**
Of Which:										
(a) Chemicals	17397	20679	25574	33462	39351	43482	53738	39202	20.68	23.59
(b) Petrochemicals	11186	13444	17492	17268	21801	22199	24226	20575	13.75	9.13
(c) Sub-Total (a+b)	28583	34123	43066	50730	61152	65681	77964	59777	**18.20**	**18.70**
(d) Share of (a+b) in Total Exports (%)	**11.20**	**11.63**	**11.47**	**11.11**	**10.70**	**10.01**	**9.27**	**9.98**		
B: Total National Imports	**297206**	**359108**	**501065**	**660409**	**840506**	**1012312**	**1374436**	**955166**	**29.08**	**35.77**
Of Which:										
(a) Chemicals	20190	25258	32838	40492	47914	54422	74857	56644	24.41	37.55
(b) Petrochemicals	6674	7865	10018	14141	16339	19577	24020	22274	23.79	22.69
(c) Sub-Total (a+b)	26864	33123	42856	54633	64253	73999	98877	78918	**24.26**	**33.62**
(d) Share of (a+b) in Total Imports (%)	**9.04**	**9.22**	**8.55**	**8.27**	**7.64**	**7.31**	**7.19**	**8.26**		
C: Trade Balance {A(c)- B(c)}	**1719**	**1000**	**210**	**-3903**	**-3101**	**-8318**	**-20913**	**-19141**		

Note: 'Chemicals' comprise chapters 28, 29, 32 & 38 while 'Petrochemicals include chapters 39, 54 & 55 of HS classification of DGCIS.

Source : DGCI&S, Kolkata, Min. of Commerce & Industry

Table-20: Exports of Major Chemicals (Group-wise)

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

PRODUCT	2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-10 (upto Dec.,09)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
ALKALI CHEMICALS	239109	15811	216745	12855	358543	25406	229907	19117	179359	15453	111266	13233	148176	25966	104145	14376
INORGANIC CHEMICALS	33827	9561	64011	16758	152859	39859	120592	39080	100754	40347	122943	47881	98240	51434	273876	69041
ORGANIC CHEMICALS	22567	8368	46227	34910	62881	57788	52854	70857	61607	85223	115650	111771	82030	86049	91323	67974
PESTICIDES & INSECTICIDES	16895	45065	20007	52654	21722	51797	24227	66882	27514	71123	25487	67749	0	0	32	108
DYES & DYESTUFF	121898	228732	130805	241863	122172	227344	152504	275068	169762	338018	198519	387611	197044	428845	166595	334647
EXPORTS OF MAJOR CHEMICALS	434296	307537	477795	359040	718177	402194	580084	471004	538996	550164	573865	628245	525490	592294	635971	486146

Source : DGCI&S, Kolkata, Min. of Commerce & Industry

Table-21 : Exports of Major Chemicals (Product-wise)

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

PRODUCT	2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-10 (upto Dec.,09)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
ALKALI CHEMICALS																
SODA ASH	167571	9734	183864	9651	319282	21485	197225	15545	136991	10472	73193	7310	86204	10956	56828	5085
CAUSTIC SODA	54213	4760	28469	2726	18515	1992	26959	3076	29409	4131	32337	5483	56498	14356	41044	8039
LIQUID CHLORINE	17325	1317	4412	478	20746	1929	5723	496	12959	850	5736	440	5474	654	6273	1252
TOTAL	**239109**	**15811**	**216745**	**12855**	**358543**	**25406**	**229907**	**19117**	**179359**	**15453**	**111266**	**13233**	**148176**	**25966**	**104145**	**14376**
Other INORGANIC CHEMICALS																
ALUMINIUM FLOURIDE	1420	451	2694	857	4607	1499	4812	2060	9146	4525	10013	5351	8417	7192	5303	3374
CALCIUM CARBIDE	101	43	27	5	22	66	2	2	43	12	4	4	250	87	696	221
CARBON BLACK	25932	5603	54524	11451	133226	28656	96998	24455	68280	23394	88174	30870	79603	35851	261969	60369
POTASSIUM CHLORATE	192	79	117	33	374	105	1301	310	8420	971	10893	1296	2629	1186	1628	665
SODIUM CHLORATE	47	15	752	102	492	92	697	81	1194	123	480	66	159	34	16	22
TITANIUM DIOXIDE	5903	3055	5668	4008	13872	9034	16392	11526	13311	10723	12798	9718	6835	6161	3921	3754
RED PHOSPHORUS	232	315	229	302	266	407	390	646	360	599	581	576	347	923	343	636
TOTAL	**33827**	**9561**	**64011**	**16758**	**152859**	**39859**	**120592**	**39080**	**100754**	**40347**	**122943**	**47881**	**98240**	**51434**	**273876**	**69041**

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Table-21 : Exports of Major Chemicals (Product-wise)

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

PRODUCT	2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-10 (upto Dec.,09)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
ORGANIC CHEMICALS																
ACETIC ACID	10994	3096	12102	3427	13796	5859	13074	5218	14819	6019	15040	5509	12589	5054	10030	3687
ACETIC ANHYDRIDE	8	8	197	85	153	63	295	142	1294	679	857	425	4168	2314	248	300
ACETONE	54	211	362	230	198	821	112	421	139	283	270	219	1950	1088	464	255
PHENOL	314	236	1413	1074	7502	5404	2168	1721	2596	2757	2078	2203	3195	3753	2096	2378
METHANOL	128	60	293	298	345	535	462	1376	1233	728	31743	13726	3264	846	24903	3330
FORMALDEHYDE	1869	304	2691	649	1522	434	2774	404	2217	407	5710	672	3256	380	2828	407
NITROBENZENE	2	1	113	69	122	83	443	336	104	80	35	39	126	144	127	87
CITRIC ACID	789	292	2825	934	6623	1858	1968	746	377	188	210	109	338	235	705	364
MALEIC ANHYDRIDE	1021	315	400	125	2033	1585	1148	696	2952	1780	622	383	274	232	95	67
PENTA-ERITHRITOL	939	536	1220	799	2221	1509	1733	1155	2469	1921	1776	1615	1325	1540	713	1071
ANILINE	459	522	922	750	2192	1750	2909	2056	4404	2716	2296	1538	964	1191	180	205
CHLORO METHANES	0	0	2549	1943	2665	2409	539	392	629	465	42	65	46	51	97	65
ISOBUTYLE	515	289	540	291	588	374	988	670	2414	1974	7314	5408	7516	6853	7961	6930
ONCB	4185	1658	2402	930	967	391	1294	770	484	381	40	40	267	225	608	340
PNCB	587	213	992	318	3618	1332	2630	1426	1754	1191	1806	790	1880	1270	679	310
MEK	703	627	351	324	300	244	409	390	178	165	207	217	304	466	98	131
ACETALDEHYDE	0	0	2	4	4	5	54	52	95	115	128	251	244	149	17	16
ETHANOLAMINES	0	0	1794	1789	2165	2159	1473	996	30	29	610	486	1143	950	0	0
ETHYL ACETATE	0	0	10419	3086	9953	3963	9327	3922	14773	6777	33054	13712	30753	13955	29229	12156
MENTHOL	0	0	4454	17691	5634	26906	8311	47670	7557	56116	10783	63970	6982	44793	9997	35775
ORTHO NITRO TOLUENE	0	0	186	94	280	104	743	298	1089	452	1029	394	1446	560	248	100
TOTAL	**22567**	**8368**	**46227**	**34910**	**62881**	**57788**	**52854**	**70857**	**61607**	**85223**	**115650**	**111771**	**82030**	**86049**	**91323**	**67974**

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Table-21 : Exports of Major Chemicals (Product-wise)

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

PRODUCT	2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-10 (upto Dec.,09)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
PESTICIDES & INSECTICIDES																
D.D.T.	9	16	958	1456	1763	2103	1204	1446	3891	4303	2532	2809	0	0	32	108
MALATHION	1574	1506	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PARATHION (METHYL)	53	381	478	891	200	240	413	904	568	637	803	885	0	0	0	0
DIMETHOATE	105	158	154	324	88	857	148	1796	334	2370	468	640	0	0	0	0
D.D.V.P.	365	379	345	1077	619	921	455	614	1276	1699	1254	1454	0	0	0	0
QUINALPHOS	180	335	86	137	273	449	442	764	353	669	98	191	0	0	0	0
ENDOSULPHAN	4447	9610	5399	9960	4628	9355	3070	6043	3175	5849	4104	7421	0	0	0	0
CYPERMETHRIN	7139	26300	6448	23235	7369	23663	10772	41245	12339	44722	12649	47179	0	0	0	0
FENTHION	2	5	109	694	26	45	174	804	318	645	5	9	0	0	0	0
LINDANE	64	152	66	333	23	52	60	118	122	204	17	102	0	0	0	0
COPPER-OXYCHLORIDE	0	0	5	8	373	298	412	434	88	148	200	305	0	0	0	0
2, 4-D	753	708	713	611	1345	1324	4138	4719	2408	2618	739	766	0	0	0	0
ISOPROTURON	1201	2162	2033	3233	1988	3562	1078	2041	1157	2191	1009	1675	0	0	0	0
ALUMINIUM	1000	3345	824	2263	1410	4322	1343	3947	1428	4913	1575	4206	0	0	0	0
METHYL BROMIDE	3	8	2389	8432	1617	4606	518	2007	57	155	34	107	0	0	0	0
TOTAL	**16895**	**45065**	**20007**	**52654**	**21722**	**51797**	**24227**	**66882**	**27514**	**71123**	**25487**	**67749**	**0**	**0**	**32**	**108**

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Table-21 : Exports of Major Chemicals (Product-wise)

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

PRODUCT	2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-10 (upto Dec.,09)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
(Contd..from pre-page)																
DYES & DYESTUFF																
AZO DYES	12153	19837	17621	27821	17369	26332	21016	33416	25583	44970	32437	54333	32784	63046	27884	48335
ACID DIRECT DYES (OTHER THAN AZO)	9988	16728	5117	7712	4048	6767	5870	9395	4693	8763	5433	11321	2809	7089	3528	7185
BASIC DYES	2581	3687	2898	4783	4762	8797	5353	9887	5935	11610	4875	7236	4355	6892	3639	5391
DISPERSE DYES	3571	6014	4591	7986	2835	5806	2794	6192	3605	7264	4201	9001	4735	12218	3185	7733
FAST COLOUR BASES	1624	3029	612	1237	923	1974	1461	3081	1852	3732	1904	4427	2116	6242	1893	4583
INGRAIN DYES	17	108	0	0	0	0	0	0	0	0	0	0	0	0	0	0
OIL SOLUBLE (SOLVENT DYES)	2737	6138	2686	5601	2984	6439	2620	6749	2326	7584	2024	6617	2245	8340	2112	6908
OPTICAL WHITENING AGENTS	4757	6126	6224	7368	6940	7504	10702	12928	12671	15897	15509	15452	15171	21115	14491	17564
ORGANIC PIGMENT COLOURS	872	1315	918	1046	843	1145	932	1949	1117	2447	366	990	265	769	390	741
PIGMENT EMULSION	24677	60489	28337	64567	27697	64019	36292	84349	42457	107119	49644	128666	49707	149583	39782	112258
REACTIVE DYES	45144	65787	45820	62446	39772	55847	46140	64209	52508	79982	64637	102448	65385	103675	55120	86313
SULPHUR DYES (SULPHUR BLACK)	1428	976	2098	3836	1648	3589	1030	2692	681	1293	391	970	597	1031	592	632
VAT DYES	1408	13377	3107	23839	2276	17078	6212	14835	1910	16055	1837	12839	1536	12160	1357	9305
SOLUBILISED VAT DYES	0	0	109	477	94	730	57	354	68	703	302	1041	346	1322	278	693
FOOD COLOURS	4697	12923	4845	12449	4129	10480	5725	13889	8130	18901	8435	18497	10103	24506	8169	18812
NAPTHOLS	3335	7185	3456	7194	3299	6941	1478	3091	1024	2415	828	2135	542	1827	577	1763
OTHER DYES	2909	5013	2366	3501	2553	3896	4822	8052	5202	9283	5696	11638	4348	9030	3598	6431
TOTAL	**121898**	**228732**	**130805**	**241863**	**122172**	**227344**	**152504**	**275068**	**169762**	**338018**	**198519**	**387611**	**197044**	**428845**	**166595**	**334647**

Source : DGCI&S, Kolkata, Min. of Commerce & Industry

(Concluded)

Table-22: Imports of Major Chemicals (Group-wise)

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

Group of Products	2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-10 (upto Dec.,09)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
ALKALI CHEMICALS	219530	12938	201445	12635	251523	18434	711078	20814	409364	44426	499490	54386	511268	68431	722988	84516
Other INORGANIC CHEMICALS	98860	21655	116326	30502	99421	33551	131364	36997	129480	51260	173866	69179	188914	96780	140547	67429
ORGANIC CHEMICALS	394918	52995	597606	97481	568092	123108	662782	156267	866698	230470	1207177	296797	1636173	343591	1140879	230203
PESTICIDES & INSECTICIDES	632	736	2042	2001	2067	2428	2159	2443	2242	2181	1198	1824	0	0	0	0
DYES & DYESTUFFS	9945	24059	12764	29732	15478	35650	22965	49985	27256	59788	32054	63327	24628	72345	21517	68429
IMPORTS OF MAJOR CHEMICALS	**723885**	**112383**	**930183**	**172351**	**936581**	**213171**	**1530348**	**266506**	**1435040**	**388125**	**1913785**	**485513**	**2360983**	**581147**	**2025931**	**450577**

Source : DGCI&S, Kolkata, Min. of Commerce & Industry

Table-23: Imports of Major Chemicals (Product-wise)

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

PRODUCT	2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-10 (upto Dec.,09)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
ALKALI CHEMICALS																
SODA ASH	105511	6555	128365	7502	187502	11859	652756	11872	260386	21394	355915	32594	358555	41202	450684	45864
CAUSTIC SODA	113963	6293	73070	5113	63988	6546	58320	8934	148977	23027	143568	21761	152446	27136	271987	38549
LIQUID CHLORINE	56	90	10	20	33	29	2	8	1	5	7	31	267	93	317	103
TOTAL	**219530**	**12938**	**201445**	**12635**	**251523**	**18434**	**711078**	**20814**	**409364**	**44426**	**499490**	**54386**	**511268**	**68431**	**722988**	**84516**
Other INORGANIC CHEMICALS																
ALUMINIUM FLOURIDE	679	164	2627	656	1519	400	5134	1811	8960	3917	13286	6126	23248	14241	16858	7484
CALCIUM CARBIDE	66931	8971	45720	9091	44356	10292	45446	10489	49026	11354	56000	14649	70860	25260	38957	13173
CARBON BLACK	18715	6598	52042	13219	32013	11814	55337	10760	38930	17636	71638	29212	61237	35998	52332	26711
POTASSIUM CHLORATE	280	68	232	50	908	237	49	13	0	1	22	15	22	8	4314	2232
SODIUM CHLORATE	5429	1040	8450	1620	8892	1702	10100	1906	15255	3042	14399	3471	19175	6513	16600	5095
TITANIUM DIOXIDE	6653	4691	7074	5720	11478	8783	15126	11802	17164	15135	18303	15407	14092	13794	11256	12269
RED PHOSPHORUS	173	123	181	146	255	323	172	216	145	175	218	299	280	966	230	465
TOTAL	**98860**	**21655**	**116326**	**30502**	**99421**	**33551**	**131364**	**36997**	**129480**	**51260**	**173866**	**69179**	**188914**	**96780**	**140547**	**67429**

(Contd..on next page)

Table-23: Imports of Major Chemicals (Product-wise)

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

PRODUCT	2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-10 (upto Dec.,09)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
ORGANIC CHEMICALS																
ACETIC ACID	43203	7909	27030	5300	70396	17397	43119	12379	124464	32678	136422	36149	285037	69914	287345	61521
ACETIC ANHYDRIDE	0	0	14	4	297	128	409	183	280	136	421	183	37	19	646	370
ACETONE	22246	5554	26715	7309	30176	11992	63933	22828	59826	21005	65026	26380	68364	27260	57336	20937
PHENOL	24737	6364	75458	18215	71229	27068	96098	43945	68754	40552	102871	66153	92918	46763	79270	36717
METHANOL	290289	28103	425827	48841	347650	42857	401088	49516	527287	95787	788816	112426	1058866	125780	610596	62096
FORMALDEHYDE	388	81	766	287	745	203	672	260	430	113	439	159	545	186	547	171
NITROBENZENE	1	0	1916	850	2171	1052	335	321	104	99	164	72	84	39	1	2
CITRIC ACID	4305	1456	7042	2085	9494	2846	15636	4610	25372	7720	31197	10043	34374	14281	26689	9680
MALEIC ANHYDRIDE	340	135	7993	2785	5756	2901	9445	5385	12055	6468	23751	12791	33009	18134	18723	9245
PENTA-ERITHRITOL	1623	932	3742	1976	5884	2752	6030	3236	6273	4132	6617	4937	6855	5354	9322	5299
ANILINE	756	391	4573	1809	2557	1554	5774	3514	13231	8012	18736	10953	18798	12312	13867	6723
CHLORO METHANES	0	0	643	313	388	155	400	711	489	692	1999	735	100	159	294	329
ISOBUTYLE	326	191	1172	639	176	115	9	40	16	15	0	0	2	10	18	13
ONCB	442	188	407	153	1285	543	0	1	5694	2887	5050	3568	5358	4008	3010	1787

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Table-23: Imports of Major Chemicals (Product-wise)

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

PRODUCT	2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-10 (upto Dec.,09)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
PNCB	3184	646	65	16	265	104	1389	613	100	30	1455	386	1551	658	2474	825
MEK	3078	1045	5434	1785	7751	3797	13544	5918	17759	7586	22091	10332	20668	13121	18301	8254
ACETALDEHYDE	0	0	67	165	71	237	156	651	104	381	20	147	62	420	70	601
ETHANOLAMINES	0	0	7067	3262	8643	5549	1029	784	581	396	576	440	577	585	0	0
ETHYL ACETATE	0	0	704	734	1718	769	3661	1316	3724	1581	404	343	6721	3371	12160	5371
MENTHOL	0	0	765	892	1024	932	5	39	17	134	120	226	97	401	52	212
ORTHO NITRO TOLUENE	0	0	206	61	416	157	50	17	138	66	1002	374	2150	816	158	50
TOTAL	**394918**	**52995**	**597606**	**97481**	**568092**	**123108**	**662782**	**156267**	**866698**	**230470**	**1207177**	**296797**	**1636173**	**343591**	**1140879**	**230203**
PESTICIDES & INSECTICIDES																
D.D.T.	0	0	57	155	0	0	1	0	0	0	23	29	0	0	0	0
PARATHION (METHYL)	398	398	1407	972	1345	1068	1289	1087	1473	1217	623	539	0	0	0	0
DIMETHOATE	36	44	94	100	60	69	101	133	0	0	12	16	0	0	0	0
D.D.V.P.	77	79	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ENDOSULPHAN	0	0	58	108	28	59	16	33	0	0	47	61	0	0	0	0
CYPERMETHRIN	42	43	0	0	2	137	0	15	0	0	147	428	0	0	0	0

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Table-23: Imports of Major Chemicals (Product-wise)

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

PRODUCT	2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-10 (upto Dec.,09)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
LINDANE	0	0	20	13	41	41	0	0	0	0	0	0	0	0	0	0
COPPER-OXYCHLORIDE	0	0	3	31	26	105	0	0	0	0	0	2	0	0	0	0
2, 4-D	0	0	0	30	0	0	0	22	0	0	0	0	0	0	0	0
ISOPROTURON	0	0	0	0	0	0	144	426	0	0	0	0	0	0	0	0
ALUMINIUM	20	6	14	52	0	0	45	23	0	0	183	511	0	0	0	0
METHYL BROMIDE	59	166	389	540	565	949	563	704	769	964	163	238	0	0	0	0
TOTAL	**632**	**736**	**2042**	**2001**	**2067**	**2428**	**2159**	**2443**	**2242**	**2181**	**1198**	**1824**	**0**	**0**	**0**	**0**
DYES & DYESTUFFS																
AZO DYES	467	1255	432	1308	351	1031	495	1247	615	1332	465	1343	583	2101	422	1484
ACID DIRECT DYES(OTHER THAN AZO)	68	159	120	458	208	337	357	501	620	731	571	741	459	1058	464	742
BASIC DYES	107	235	312	606	381	730	829	1471	990	1815	1064	1779	814	1799	1150	3246
DISPERSE DYES	3809	4709	4472	5586	5008	7009	6297	8946	7421	11000	7215	10076	7205	12543	6497	11727
FAST COLOUR BASES	42	266	52	116	79	176	231	432	170	413	219	422	249	591	310	769
OIL SOLUBLE (SOLVENT DYES)	45	79	225	1076	245	681	390	776	304	960	323	869	494	2657	394	2600
OPTICAL WHITENING AGENTS	277	1698	503	2429	379	1853	560	2876	475	2405	497	2441	378	2264	335	1899

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Table-23: Imports of Major Chemicals (Product-wise)

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

PRODUCT	2002-2003		2003-2004		2004-2005		2005-2006		2006-2007		2007-2008		2008-2009		2009-10 (upto Dec.,09)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
ORGANIC PIGMENT COLOURS	997	2400	875	1632	728	1751	548	1441	919	2222	428	922	670	968	269	501
PIGMENT EMULSION	1193	4656	1337	5608	1931	7568	2659	10565	3235	12969	4075	15695	4808	23398	3599	20821
REACTIVE DYES	757	3601	741	3252	1105	4426	1933	7647	2313	10379	2267	9473	2081	9235	1697	9242
SULPHUR DYES (SULPHUR BLACK)	360	250	1161	605	1586	888	4495	2038	5103	2231	7957	3214	2240	1471	2178	1611
VAT DYES	1092	3143	1781	4020	2362	5117	2744	6889	2834	6396	4765	9521	2788	8125	2643	8490
SOLUBILISED VAT DYES	0	0	24	335	43	164	75	431	149	518	93	481	90	448	21	180
FOOD COLOURS	55	179	162	1588	395	2656	438	3009	910	3928	493	3278	351	1917	310	1988
NAPTHOLS	553	1210	294	553	473	761	672	1100	971	1715	1006	1813	925	2045	862	1810
OTHER DYES	123	219	273	560	204	502	242	616	227	774	616	1259	493	1725	366	1319
TOTAL	**9945**	**24059**	**12764**	**29732**	**15478**	**35650**	**22965**	**49985**	**27256**	**59788**	**32054**	**63327**	**24628**	**72345**	**21517**	**68429**

Source : DGCI&S, Kolkata, Min. of Commerce & Industry

(concluded)

Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
SODA ASH	BANGLADESH PR	24725.25	2614.67
	SAUDI ARABIA	14600.00	1864.83
	INDONESIA	13600.00	1574.94
	THAILAND	9939.00	1469.66
	U ARAB EMIRATES	6858.65	909.75
	KUWAIT	5570.24	690.87
	NEPAL	3773.90	616.34
	MALAYSIA	3302.50	670.72
	SRI LANKA DSR	1248.79	133.27
	SOUTH AFRICA	500.00	55.35
	TANZANIA REP	446.61	57.91
	BAHARAIN IS	362.50	39.15
	MYANMAR	301.00	44.44
	BRAZIL	191.00	14.23
	OMAN	147.47	27.32
	EGYPT A RP	118.00	16.91
	KENYA	116.81	14.43
	Product Total	86203.72	10956.34

(Contd..on next page)

Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)

(Contd..from pre-page)

	BRAZIL	10436.37	2155.73
	NEPAL	7129.20	1648.35
	KENYA	6976.68	1611.03
	SRI LANKA DSR	5887.22	1327.86
	TANZANIA REP	3878.00	959.08
	U S A	2688.91	963.20
	BANGLADESH PR	2641.76	681.16
	U ARAB EMIRATES	2547.32	643.15
	GERMANY	1511.19	635.45
	CONGO D. REP.	1400.00	437.64
	UGANDA	1227.48	321.08
	CONGO,P REP	1103.06	351.97
	EGYPT A RP	866.00	262.93
	GHANA	825.00	229.31
	MOZAMBIQUE	813.00	203.56
	ZAMBIA	474.00	125.34
	IRAN	416.98	110.97
	MAURITIUS	390.00	78.11
	ITALY	330.50	136.10
	COTE D' IVOIRE	302.00	90.06
CAUSTIC SODA	SOUTH AFRICA	300.00	64.93
	MALI	275.00	68.93
	JAPAN	212.77	98.54
	TUNISIA	207.50	48.07
	SUDAN	201.40	52.03
	HUNGARY	200.00	55.64
	MALAYSIA	189.00	50.25
	NIGERIA	176.10	44.16
	IRAQ	150.00	50.37
	BAHARAIN IS	132.65	33.89
	ISRAEL	130.00	64.83
	SPAIN	127.00	26.73
	CZECH REPUBLIC	125.00	35.81
	SENEGAL	125.00	33.86
	SAUDI ARABIA	120.88	38.39
	LEBANON	112.50	27.18
	CAMEROON	100.01	28.78
	GREECE	100.00	27.83
	MALAWI	100.00	27.52
	NAMIBIA	100.00	24.77
	Product Total	**56498.09**	**14355.84**

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Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)

(Contd..from pre-page)

LIQUID CHLORINE	NEPAL	1070.84	87.95
	NIGERIA	969.33	99.07
	KENYA	571.50	108.45
	TANZANIA REP	223.40	49.73
	Product Total	**5474.17**	**654.33**
ALUMINIUM FLOURIDE	NEW ZEALAND	3151.00	2727.32
	U ARAB EMIRATES	1856.00	1216.72
	BAHARAIN IS	1500.00	1385.70
	KOREA RP	1485.00	1432.64
	JAPAN	423.00	429.44
	Product Total	8416.92	7192.45
CARBON BLACK	ETHIOPIA	19108.61	8630.46
	INDONESIA	16124.15	7652.07
	JAPAN	14641.69	7544.03
	KOREA RP	9490.70	4183.05
	MALAYSIA	6664.20	1181.60
	CONGO P REP	3380.87	1510.38
	AUSTRALIA	2077.47	1149.07
	ITALY	1816.51	885.28
	BANGLADESH PR	1341.80	659.56
	IRAN	1187.84	568.70
	DJIBOUTI	895.50	363.13
	ISRAEL	682.00	263.25
	CHINA P RP	512.57	292.92
	JORDAN	329.01	404.88
	ISRAEL	202.72	75.83
	IRAN	190.00	64.06
	KENYA	178.21	114.55
	DENMARK	163.25	70.57
	AUSTRALIA	132.71	52.02
	BANGLADESH PR	122.00	21.46
	Product Total	79602.80	35850.80
POTASSIUM CHLORATE	PAKISTAN IR	844.00	392.05
	EGYPT A RP	384.00	175.31
	BANGLADESH PR	218.00	87.90
	INDONESIA	216.53	87.83
	PHILIPPINES	210.00	103.84
	VIETNAM SOC REP	194.00	80.94
	KENYA	130.00	61.52
	Product Total	**2628.89**	**1185.66**

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Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
			(Contd..from pre-page)
TITANIUM DIOXIDE	IRAN	816.51	703.87
	SINGAPORE	780.00	679.33
	CHINA P RP	740.65	644.03
	ITALY	728.00	715.95
	SPAIN	714.00	656.53
	U S A	495.38	438.16
	BRAZIL	340.00	273.06
	KOREA RP	331.03	315.61
	JAPAN	248.00	240.11
	NETHERLAND	240.00	220.83
	SOUTH AFRICA	200.00	186.09
	RUSSIA	180.00	158.01
	U K	172.00	149.67
	U ARAB EMIRATES	132.00	121.65
	ARGENTINA	118.38	103.85
	TURKEY	100.00	92.52
	Product Total	**6834.79**	**6160.91**
ACETIC ACID	BANGLADESH PR	3660.14	1435.80
	PHILIPPINES	1918.00	769.99
	EGYPT A RP	1246.66	486.46
	U ARAB EMIRATES	727.59	277.92
	MAURITIUS	533.60	195.41
	SINGAPORE	502.96	214.86
	SRI LANKA DSR	390.18	151.43
	KENYA	364.00	112.68
	OMAN	344.40	192.93
	LEBANON	301.04	113.52
	SAUDI ARABIA	247.00	102.70
	KUWAIT	202.22	98.27
	ISRAEL	201.00	88.20
	MYANMAR	200.47	78.61
	AUSTRALIA	194.40	74.61
	DJIBOUTI	181.35	72.79
	TANZANIA REP	129.86	57.35
	MADAGASCAR	120.00	49.91
	NEPAL	113.61	35.36
	PAKISTAN IR	113.00	40.64
	TURKEY	103.58	40.25
	Product Total	**12589.12**	**5053.78**

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Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)

(Contd..from pre-page)

ACETIC ANHYDRIDE	NETHERLAND	3993.00	2207.00
	Product Total	4167.90	2313.93
ACETONE	U S A	1229.06	675.96
	SAUDI ARABIA	314.00	148.55
	U ARAB EMIRATES	170.12	100.00
	IRAN	122.00	65.34
	Product Total	1950.27	1087.53
PHENOL	GERMANY	994.73	1107.09
	SAUDI ARABIA	681.58	438.80
	KUWAIT	349.72	373.46
	U ARAB EMIRATES	304.32	214.55
	JAPAN	174.66	451.09
	THAILAND	170.30	184.34
	SOUTH AFRICA	118.00	103.22
	SWITZERLAND	109.50	293.71
	Product Total	**3194.91**	**3752.64**
METHANOL	ITALY	900.00	169.02
	SRI LANKA DSR	734.61	184.33
	NEPAL	713.85	156.67
	KENYA	475.60	108.21
	U ARAB EMIRATES	249.87	87.64
	Product Total	3264.46	846.39
FORMALDEHYDE	NEPAL	2533.19	248.61
	BHUTAN	290.86	31.66
	U ARAB EMIRATES	220.39	43.13
	Product Total	3256.19	379.56
ETHYL ACETATE	U S A	4698.00	4398.61
	CHINA P RP	2596.00	2248.61
	JAPAN	200.00	195.77
	Product Total	**7516.00**	**6853.33**

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Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)

(Contd..from pre-page)

ISOBUTYLE	NETHERLAND	9247.00	3956.81
	ITALY	9159.00	3810.46
	EGYPT A RP	2221.96	1090.77
	U ARAB EMIRATES	1569.01	840.93
	TURKEY	1520.00	693.36
	SAUDI ARABIA	1515.03	815.74
	NIGERIA	1249.00	622.94
	KENYA	1093.00	573.81
	OMAN	529.00	272.59
	BANGLADESH PR	516.22	273.66
	IRAN	302.80	134.49
	NEPAL	292.07	132.26
	TUNISIA	201.00	84.65
	LEBANON	193.00	105.70
	SYRIA	191.00	92.52
	TANZANIA REP	149.00	70.87
	MOROCCO	115.00	55.77
	SPAIN	104.00	38.79
	YEMEN REPUBLC	101.00	47.67
	Product Total	**30753.18**	**13955.09**
MENTHOL	CHINA P RP	3575.32	21100.75
	U S A	1011.08	7052.43
	NETHERLAND	688.15	4934.28
	SINGAPORE	366.00	2226.47
	PARAGUAY	281.54	2060.79
	HONG KONG	122.35	1034.58
	Product Total	6982.26	44793.09
ORTHO NITRO TOLUENE	JAPAN	1084.52	452.79
	Product Total	**1446.12**	**560.33**

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Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
			(Contd..from pre-page)
AZO DYES	ITALY	5934.45	11881.35
	GERMANY	3707.16	7128.22
	SPAIN	2005.74	3656.57
	TURKEY	1924.20	2951.72
	NETHERLAND	1874.62	3592.62
	U S A	1827.80	4675.80
	SINGAPORE	1552.71	2467.37
	BRAZIL	1537.89	2807.79
	KOREA RP	1448.17	2710.12
	PAKISTAN IR	1323.07	2255.98
	CHINA P RP	1002.59	2045.98
	ARGENTINA	827.22	1399.84
	TAIWAN	803.99	1476.32
	FRANCE	749.85	1472.56
	SWITZERLAND	627.32	1543.26
	MEXICO	605.33	1001.63
	JAPAN	527.93	1268.78
	U K	462.23	1336.76
	INDONESIA	306.35	600.39
	HONG KONG	294.31	643.29
	THAILAND	272.08	490.28
	SOUTH AFRICA	249.23	457.04
	RUSSIA	213.16	387.38
	BELGIUM	185.86	291.08
	GREECE	173.64	310.89
	BANGLADESH PR	157.26	228.79
	SYRIA	142.29	260.26
	EGYPT A RP	139.33	242.71
	MALAYSIA	136.92	199.71
	URUGUAY	131.77	202.59
	YEMEN REPUBLC	131.01	164.56
	NIGERIA	119.89	192.91
	MOROCCO	112.59	174.30
	COLOMBIA	111.22	176.76
	Product Total	**32783.63**	**63046.00**

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Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
			(Contd..from pre-page)
ACID DIRECT DYES(OTHER THAN AZO)	SWITZERLAND	472.22	1328.13
	ITALY	419.63	928.82
	NETHERLAND	146.08	596.10
	U S A	133.99	337.89
	ARGENTINA	109.18	214.63
	TAIWAN	102.44	209.50
	BRAZIL	102.10	199.65
	SPAIN	101.99	220.53
	JAPAN	100.99	373.75
	Product Total	**2809.16**	**7088.81**
BASIC DYES	U S A	506.94	651.62
	PAKISTAN IR	390.73	529.22
	TAIWAN	319.55	438.25
	U K	317.69	515.06
	ITALY	256.82	339.95
	BELGIUM	239.48	402.68
	NETHERLAND	198.78	259.55
	CANADA	190.34	220.10
	GERMANY	163.91	451.17
	MEXICO	121.41	220.69
	KOREA RP	118.56	208.12
	TURKEY	106.10	123.93
	Product Total	**4355.21**	**6891.99**
DISPERSE DYES	U S A	917.09	3009.28
	BELGIUM	607.48	1671.85
	INDONESIA	454.92	924.54
	HONDURAS	227.32	360.12
	JAPAN	212.43	618.15
	ITALY	178.16	466.84
	TAIWAN	136.54	110.15
	SAUDI ARABIA	130.17	240.06
	PAKISTAN IR	129.03	227.51
	BANGLADESH PR	125.82	168.63
	NETHERLAND	118.56	370.57
	BRAZIL	107.53	223.08
	Product Total	**4734.53**	**12217.88**

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Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
			(Contd..from pre-page)
FAST COLOUR BASES	NETHERLAND	452.33	1556.30
	GERMANY	352.60	1040.61
	U K	281.67	952.10
	BRAZIL	191.89	501.72
	BELGIUM	135.25	370.43
	CHINA P RP	119.45	461.59
	Product Total	2116.49	6242.02
OIL SOLUBLE (SOLVENT DYES)	U S A	415.18	1367.69
	GERMANY	325.49	1562.46
	BRAZIL	270.55	621.00
	ITALY	266.18	819.24
	U K	106.69	671.47
	Product Total	**2244.67**	**8340.14**

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Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
			(Contd..from pre-page)
OPTICAL WHITENING AGENTS	THAILAND	2126.92	1776.21
	FINLAND	1913.92	840.65
	U S A	1271.79	2128.71
	CHINA P RP	1094.64	1528.08
	NETHERLAND	1049.90	1985.05
	GERMANY	1032.50	3094.43
	AUSTRALIA	848.45	608.26
	SINGAPORE	587.03	923.65
	AUSTRIA	423.00	197.60
	EGYPT A RP	387.92	550.43
	VIETNAM SOC REP	346.55	613.93
	BRAZIL	338.87	745.94
	HONG KONG	313.96	326.61
	RUSSIA	305.83	554.41
	SOUTH AFRICA	242.96	556.42
	SWEDEN	237.90	411.19
	JAPAN	208.50	528.56
	PHILIPPINES	205.02	304.77
	FRANCE	205.00	175.59
	U K	148.76	129.05
	BELGIUM	148.17	84.89
	U ARAB EMIRATES	144.13	275.93
	BANGLADESH PR	110.26	118.11
	INDONESIA	104.51	189.79
	GHANA	103.45	70.01
	Product Total	**15171.00**	**21114.89**

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Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)

(Contd..from pre-page)

PIGMENT EMULSION	U S A	7842.24	22386.12
	JAPAN	4625.88	11408.25
	GERMANY	4099.88	13579.37
	BELGIUM	3195.13	10203.65
	KOREA RP	2995.31	7456.37
	NETHERLAND	2684.95	7595.76
	BRAZIL	1441.35	4880.07
	CHINA P RP	1438.54	6733.15
	ITALY	1346.60	4219.25
	U K	1324.73	3679.89
	THAILAND	1148.45	3559.23
	DENMARK	916.14	3377.63
	INDONESIA	895.93	2807.32
	TURKEY	803.99	2450.82
	RUSSIA	795.19	2225.19
	U ARAB EMIRATES	789.93	2435.45
	NIGERIA	758.47	2277.69
	SOUTH AFRICA	697.93	2131.77
	FRANCE	690.68	2002.47
	MEXICO	674.02	2011.04
	SPAIN	669.29	1893.48
	EGYPT A RP	649.69	1878.65
	TAIWAN	639.60	1718.28
	IRAN	568.90	1598.57
	SAUDI ARABIA	514.69	1609.92
	SWEDEN	501.92	1228.81
	PHILIPPINES	477.73	1558.83
	AUSTRALIA	461.40	1569.32
	MALAYSIA	422.28	1371.94
	BANGLADESH PR	411.37	1137.58
	PAKISTAN IR	365.13	1228.87
	SINGAPORE	341.99	1331.94
	HONG KONG	340.76	1056.68
	ARGENTINA	327.12	1078.91
	VIETNAM SOC REP	322.12	962.93
	SWITZERLAND	293.48	782.85
	CANADA	290.37	1378.48
	PORTUGAL	194.66	972.67
	KOREA DP RP	194.09	394.40
	KENYA	169.96	490.35
	COLOMBIA	159.34	498.11
	PERU	147.44	527.53
	GREECE	141.65	435.23
	SRI LANKA DSR	128.49	414.84
	ISRAEL	110.61	309.59
	TANZANIA REP	109.09	280.47
	ALGERIA	107.53	347.79
	MOROCCO	104.04	275.39
	Product Total	**49707.37**	**149583.27**

(Contd..on next page)

Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)

(Contd..from pre-page)

	BANGLADESH PR	14563.75	11240.09
	TURKEY	11302.38	18666.63
	PAKISTAN IR	3620.43	5827.38
	BRAZIL	3506.24	6467.44
	U S A	2714.74	5303.01
	INDONESIA	2591.58	4651.16
	CHINA P RP	2510.06	4945.37
	THAILAND	2464.28	4953.07
	HONDURAS	2436.25	4360.27
	GERMANY	2118.52	4825.87
	TAIWAN	2104.86	3529.86
	KOREA RP	1900.01	3688.64
	EGYPT A RP	1344.48	1930.27
	TANZANIA REP	1258.89	1573.18
	SINGAPORE	1129.63	2161.12
	MEXICO	898.34	1574.81
	ITALY	856.26	1996.85
	NETHERLAND	718.44	1341.36
	SWITZERLAND	639.05	1548.67
	HONG KONG	535.05	1163.97
	IRAN	534.61	888.25
REACTIVE DYES	CANADA	418.45	751.53
	SOUTH AFRICA	390.78	742.02
	PORTUGAL	384.55	648.89
	NIGERIA	359.18	523.40
	SPAIN	295.33	602.71
	ARGENTINA	289.56	563.27
	GREECE	256.24	457.72
	URUGUAY	252.06	419.46
	U K	209.53	614.52
	NEPAL	199.37	323.69
	UNSPECIFIED	199.18	376.00
	COLOMBIA	170.62	300.09
	RUSSIA	158.64	372.77
	GUATEMALA	142.62	252.83
	PANAMA REPUBLIC	120.37	257.32
	BELGIUM	118.74	275.61
	VENEZUELA	118.69	258.06
	JAPAN	110.24	478.04
	MOROCCO	110.17	173.65
	U ARAB EMIRATES	108.90	269.99
	Product Total	**65384.76**	**103674.73**

(Contd..on next page)

Table-24: Top Export Destinations of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
			(Contd..from pre-page)
FOOD COLOURS	U S A	1604.88	4543.14
	INDONESIA	645.40	1551.38
	BRAZIL	569.57	1336.19
	SPAIN	514.95	1418.05
	MALI	492.50	82.93
	U K	486.56	1364.09
	MEXICO	440.22	842.78
	SOUTH AFRICA	429.64	1216.07
	THAILAND	325.05	757.52
	PHILIPPINES	324.22	802.22
	CHINA P RP	240.08	646.19
	SAUDI ARABIA	237.24	426.03
	JAPAN	217.98	457.90
	AUSTRALIA	188.89	451.98
	RUSSIA	179.86	454.28
	ARGENTINA	177.59	410.27
	VIETNAM SOC REP	169.26	316.14
	PAKISTAN IR	162.98	343.12
	ITALY	161.86	517.18
	FRANCE	150.32	435.50
	U ARAB EMIRATES	133.54	348.13
	JORDAN	130.91	263.64
	CHILE	122.41	315.07
	EGYPT A RP	119.19	276.83
	MALAYSIA	105.08	265.67
	NIGERIA	102.05	241.29
	Product Total	**10103.32**	**24505.76**
OTHER DYES	INDONESIA	543.533	728.135
	U S A	492.567	1450.122
	TURKEY	337.426	445.208
	TAIWAN	297.471	488.371
	ITALY	285.68	765.356
	BRAZIL	239.465	444.264
	THAILAND	168.655	184.995
	PAKISTAN IR	162.576	257.407
	SPAIN	136.419	339.815
	NETHERLAND	134.733	322.788
	JAPAN	121.666	208.012
	MEXICO	106.049	225.008
	CHINA P RP	103.766	412.117
	Product Total	**4348.442**	**9029.844**

(concluded)

Table-25: Top sources (Countries) of Imports of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS. LAKHS)
SODA ASH	CHINA P RP	149726.45	16970.87
	KENYA	117571.98	13586.69
	BULGARIA	48760.11	5274.57
	IRAN	14098.07	1775.80
	ROMANIA	7652.00	1102.51
	UKRAINE	5981.59	706.93
	ITALY	5120.90	645.66
	TURKEY	3504.00	330.01
	RUSSIA	1455.75	262.60
	KOREA RP	992.00	122.98
	GERMANY	984.48	131.86
	U S A	829.55	71.15
	U ARAB EMTS	667.00	73.93
	FRANCE	497.50	62.23
	BOSNIA-HRZGOVIN	351.00	34.88
	PAKISTAN IR	231.00	26.82
	Product Total	**358555.14**	**41202.15**

(Contd..on next page)

Table-25: Top sources (Countries) of Imports of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS. LAKHS)
			(Contd..from pre-page)
CAUSTIC SODA	CHINA P RP	72859.51	11012.79
	INDONESIA	31360.80	6050.54
	QATAR	14569.44	2705.36
	KOREA RP	11010.72	2531.48
	THAILAND	9930.00	1742.93
	SAUDI ARAB	9146.00	1870.47
	KENYA	1166.60	165.90
	PAKISTAN IR	994.00	60.70
	U S A	673.24	555.23
	TAIWAN	186.16	109.41
	U K	148.12	114.57
	Product Total	**152446.00**	**27136.48**
ALUMINIUM FLOURIDE	CHINA P RP	21936.36	13520.09
	INDONESIA	1298.27	697.53
	Product Total	**23248.41**	**14240.52**
CALCIUM CARBIDE	BHUTAN	45230.57	16648.08
	CHINA P RP	20479.04	6862.67
	ARMENIA	2249.69	706.68
	ARGENTINA	1593.42	597.17
	GEORGIA	847.15	287.12
	BRAZIL	264.00	88.15
	SOUTH AFRICA	129.00	43.46
	Product Total	**70860.47**	**25260.28**

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Table-25: Top sources (Countries) of Imports of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS. LAKHS)
			(Contd..from pre-page)
CARBON BLACK	RUSSIA	21188.50	11409.93
	CHINA P RP	14714.15	7105.11
	THAILAND	6363.08	3314.84
	AUSTRALIA	4507.22	2344.93
	U K	2741.56	1099.88
	MALAYSIA	2550.78	1276.11
	U S A	1647.69	2785.08
	IRAN	1315.24	640.09
	NETHERLAND	1204.48	961.01
	KOREA RP	1120.57	747.79
	GERMANY	812.99	2600.45
	SPAIN	716.50	219.17
	BELGIUM	474.66	102.24
	U ARAB EMTS	450.08	227.64
	CANADA	358.16	263.71
	EGYPT A RP	240.20	121.58
	SINGAPORE	224.35	139.23
	JAPAN	187.43	277.70
	PAKISTAN IR	134.25	36.65
	Product Total	**61237.23**	**35998.41**

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Table-25: Top sources (Countries) of Imports of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS. LAKHS)
			(Contd..from pre-page)
TITANIUM DIOXIDE	CHINA P RP	2472.38	1583.05
	KOREA RP	1963.27	1979.12
	U S A	1928.90	2090.85
	GERMANY	1666.32	2253.97
	JAPAN	1092.90	1089.58
	MALAYSIA	738.06	738.80
	TAIWAN	723.95	767.64
	AUSTRALIA	479.09	470.69
	U K	465.97	508.09
	ITALY	444.65	365.49
	CZECH REPUBLIC	435.98	427.53
	SINGAPORE	356.71	382.65
	CANADA	258.14	193.43
	BELGIUM	221.90	211.00
	SAUDI ARAB	145.40	158.51
	SPAIN	144.00	175.62
	FRANCE	142.35	160.14
	Product Total	**14092.03**	**13794.47**
ACETIC ACID	SINGAPORE	215500.58	54712.66
	MALAYSIA	44378.53	9766.01
	IRAN	16452.48	2937.63
	RUSSIA	4469.40	1332.32
	SAUDI ARAB	4068.00	930.85
	Product Total	**285036.93**	**69914.39**

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Table-25: Top sources (Countries) of Imports of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS. LAKHS)
			(Contd..from pre-page)
ACETONE	KOREA RP	16031.26	6325.22
	SOUTH AFRICA	10408.65	4264.73
	TAIWAN	10156.74	3979.34
	SINGAPORE	9572.00	3919.11
	JAPAN	8398.96	3362.57
	U S A	3865.34	1835.08
	NETHERLAND	2892.00	1110.52
	ITALY	2045.00	867.07
	THAILAND	1913.82	550.34
	SPAIN	1363.03	410.47
	Product Total	**68363.75**	**27259.97**
PHENOL	U S A	24851.73	15638.87
	THAILAND	20497.76	6422.67
	JAPAN	18226.32	9146.89
	SOUTH AFRICA	8176.49	4057.55
	SINGAPORE	7002.39	3354.26
	SPAIN	6145.14	3312.83
	TAIWAN	2901.90	1504.28
	FINLAND	1716.16	851.46
	REUNION	679.14	465.14
	U K	335.09	238.22
	CHINA P RP	309.04	790.39
	RUSSIA	232.88	146.57
	NETHERLAND	226.00	156.67
	KOREA RP	192.00	133.72
	GERMANY	112.80	94.12
	Product Total	**92917.64**	**46762.85**

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Table-25: Top sources (Countries) of Imports of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS. LAKHS)
			(Contd..from pre-page)
METHANOL	SAUDI ARAB	428494.15	46425.06
	IRAN	394425.70	47184.09
	QATAR	129739.00	18342.68
	OMAN	103716.00	13234.93
	U ARAB EMTS	1301.00	129.71
	SOUTH AFRICA	934.04	143.58
	Product Total	**1058865.87**	**125779.66**
CITRIC ACID	CHINA P RP	33797.69	13898.67
	AUSTRIA	116.68	79.87
	SINGAPORE	102.99	104.27
	Product Total	**34374.04**	**14281.03**
MALEIC ANHYDRIDE	CHINA P RP	16993.81	10057.38
	MALAYSIA	10042.27	4927.24
	TAIWAN	3082.68	1513.27
	KOREA RP	1917.10	1102.53
	JAPAN	621.21	283.77
	BELGIUM	194.00	152.96
	Product Total	**33009.37**	**18134.15**
PENTA-ERITHRITOL	GERMANY	3106.71	2542.22
	CHINA P RP	2735.53	1993.90
	IRAN	231.00	73.35
	SPAIN	200.45	202.07
	TAIWAN	198.00	149.09
	KOREA RP	152.02	135.80
	Product Total	**6854.63**	**5354.40**
ANILINE	U K	7738.9	5164.1
	U S A	4189.0	2682.7
	CHINA P RP	2802.4	2012.9
	BELGIUM	833.5	355.2
	CZECH REPUBLIC	301.1	214.0
	Product Total	**18798.3**	**12312.5**

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Table-25: Top sources (Countries) of Imports of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS. LAKHS)
			(Contd..from pre-page)
ONCB	CHINA P RP	2507.69	2078.76
	GERMANY	2844.28	1925.43
	Product Total	5358.36	4008.05
PNCB	CHINA P RP	1405.082	612.773
	Product Total	**1550.622**	**658.316**
MEK	SOUTH AFRICA	9021.61	6146.41
	TAIWAN	3609.48	2344.24
	U K	2759.73	1619.09
	NETHERLAND	2222.96	1377.29
	CHINA P RP	1123.00	570.03
	JAPAN	999.00	399.24
	SINGAPORE	866.44	577.46
	Product Total	**20668.13**	**13120.92**
ETHYL ACETATE	CHINA P RP	3546.80	1634.68
	SINGAPORE	2545.00	1246.94
	BELGIUM	287.04	211.22
	KOREA RP	106.50	80.96
	Product Total	**6720.82**	**3371.06**
DISPERSE DYES	CHINA P RP	6203.53	10092.79
	INDONESIA	400.06	452.04
	GERMANY	231.13	708.01
	TAIWAN	115.81	362.52
	SINGAPORE	111.03	261.95
	Product Total	**7205.46**	**12542.64**

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Table-25: Top sources (Countries) of Imports of Selected Chemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS. LAKHS)
			(Contd..from pre-page)
PIGMENT EMULSION	CHINA P RP	1558.30	4520.92
	U S A	783.21	2594.53
	KOREA RP	594.13	1678.14
	GERMANY	550.26	6037.87
	U K	358.89	1891.80
	ITALY	232.50	531.06
	SWITZERLAND	132.99	1909.44
	SPAIN	116.88	261.06
	JAPAN	107.49	1562.05
	Product Total	**4808.15**	**23397.55**
REACTIVE DYES	SWITZERLAND	600.89	3496.38
	CHINA P RP	496.32	2054.15
	GERMANY	478.42	1918.94
	THAILAND	154.10	495.32
	Product Total	**2081.20**	**9234.84**
SULPHUR DYES (SULPHUR BLACK)	CHINA P RP	2043.49	1200.23
	IRAQ	103.37	32.51
	Product Total	**2240.48**	**1471.06**
VAT DYES	CHINA P RP	2027.99	5785.71
	GERMANY	436.75	1549.23
	LITHUANIA	214.62	198.24
	Product Total	**2788.06**	**8125.03**

(concluded)

Table-26: Exports of Major Petrochemicals(Group-wise)

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

PRODUCT	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-2010 (April-Dec)	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
SYNTHETIC FIBRES	143871	89005	140775	87844	177799	124688	174885	128186	320874	226106	393250	260681	238816	183208	208745	148244
FIBRE INTERMEDIATES	226546	60667	145906	40614	212456	87904	172218	79483	115956	56621	50503	27032	85323	32896	13926	9498
POLYMERS	760725	209074	842568	265813	1015088	444640	694764	331849	875916	493630	627091	351144	353521	224602	410057	220270
ELASTOMERS	8342	2864	8467	3600	6533	3797	21585	12346	15696	11877	14108	9558	15985	13129	11538	8766
SYNTH. DETERGENT INTERMEDIATES	58106	20240	41981	13295	66876	27367	107626	51504	127478	66490	129867	70877	90453	74968	65175	41472
PERFORMANCE PLASTICS	814	602	3028	1630	2853	2256	4553	3974	5956	6082	9454	7359	8582	7707	6541	6495
OLEFINS	15	8	132	159	48083	22113	86533	41517	113077	59703	152851	66634	119965	81935	105688	53353
AROMATICS	164047	41568	594203	153272	565010	216052	806261	327264	1252690	591614	1394158	609926	1117732	474224	817346	379658

Table-27: Exports of Major Petrochemicals (Product-wise)

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

PRODUCT	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-10 (April Dec)	
	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
SYNTHETIC FIBRES																
ACRYLIC FIBRE	10957	8969	19349	14446	17831	15339	11372	11350	9199	10483	5566	6463	6439	9027	9521	11151
NYLON FILAMENT YARN	5120	4844	12439	10628	7417	8296	5655	7132	1929	3719	2803	4721	2596	4711	1395	3236
NYLON INDUSTRIAL YARN/TYRE CORD	1501	1698	2517	2935	2909	4092	4009	6015	4825	7394	5736	8480	0	0	0	0
POLYESTER FILAMENT YARN	93775	57888	72147	43825	98207	69993	109875	80320	179030	134502	231608	160061	91947	89853	82065	70710
POLYESTER STAPLE FIBRE	29320	12778	31746	13708	50116	25904	42609	22046	124156	68391	145825	79363	136370	78080	115154	62500
POLYPROPYLENE FILAMENT YARN	2737	2590	2311	2157	975	856	938	980	1203	1103	1079	1095	571	688	313	416
POLYPROPYLENE STAPLE FIBRE	461	238	266	145	344	208	427	343	532	514	633	498	893	849	297	231
TOTAL	**143871**	**89005**	**140775**	**87844**	**177799**	**124688**	**174885**	**128186**	**320874**	**226106**	**393250**	**260681**	**238816**	**183208**	**208745**	**148244**
FIBRE INTERMEDIATES																
ACRYLONITRILE	26	32	21	54	76	153	6	13	1	6	76	450	2877	1184	1	3
CAPROLACTUM	11412	6540	9741	5363	26189	24791	21350	20696	13822	13317	2787	2930	7773	5986	8600	7902
DIMETHYL TEREPHTHALATE	16255	3656	696	250	513	202	1148	512	737	348	299	129	0	0	0	0
MONO EHYLENE GLYCOL	5665	1326	39851	10918	142694	50959	137410	54088	69177	30432	44306	22393	34570	11194	5325	1593
PURIFIED TEREPHTHALIC ACID	193188	49113	95597	24029	42984	11799	12304	4174	32219	12518	3035	1130	40103	14532	0	0
TOTAL	**226546**	**60667**	**145906**	**40614**	**212456**	**87904**	**172218**	**79483**	**115956**	**56621**	**50503**	**27032**	**85323**	**32896**	**13926**	**9498**

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Table-27: Exports of Major Petrochemicals (Product-wise)

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

PRODUCT	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-10 (April Dec)	
	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
POLYMERS																
LOW DENSITY POLYETHYLENE	20259	5533	2288	892	33028	14701	14212	6762	7188	3899	10937	6885	7536	4466	4063	2357
HIGH DENSITY POLYTHYLENE	198525	50851	233457	68353	364383	150086	285331	131248	263044	146631	134646	75109	101525	58931	17948	10177
POLYESTYRENE	69851	23753	72325	27807	74260	41431	120993	62578	104044	62715	83663	51784	60678	39922	42295	25788
POLYPROPYLENE (INC. CO-POLYMER)	405821	110936	486485	152842	471870	204479	224167	106472	462003	256693	364968	197406	154992	101826	340672	178514
EXPANDABLE POLYESTYRENE	12575	4364	6300	2122	1098	605	5960	3106	6330	3789	2120	1304	937	540	2710	1446
POLY VINYL CHLORIDE	1023	513	15210	5907	16369	7581	20911	10344	1113	778	4724	2300	1419	850	442	343
LINEAR LOW DENSITY POLYTHYLENE	52671	13124	26503	7890	54080	25757	23190	11339	32194	19125	26033	16356	26434	18067	1927	1645
TOTAL	**760725**	**209074**	**842568**	**265813**	**1015088**	**444640**	**694764**	**331849**	**875916**	**493630**	**627091**	**351144**	**353521**	**224602**	**410057**	**220270**
ELASTOMERS																
STYRENE BUTADIENE RUBBER	1653	677	3724	1648	3118	1440	12506	6402	8128	5513	8151	4635	7431	5180	5294	3272
POLY BUTADIENE RUBBER	6078	1835	1981	621	24	20	5337	2792	951	751	57	61	1279	511	797	738
ETHYL PROPYLENE DIMERS	260	172	1444	855	2729	1822	2448	1940	1977	1877	1817	1533	2339	2198	1317	1371
ETHYL VINYL ACETATE	90	42	964	313	186	169	380	297	3434	2460	2574	1963	1350	1320	388	369
NITRILE BUTADIENE RUBBER	207	113	194	88	277	199	607	643	829	739	1376	1238	3180	3637	3080	2637
BUTYL RUBBER	54	25	160	75	199	147	307	272	377	537	133	128	406	283	662	379
TOTAL	**8342**	**2864**	**8467**	**3600**	**6533**	**3797**	**21585**	**12346**	**15696**	**11877**	**14108**	**9558**	**15985**	**13129**	**11538**	**8766**

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Table-27: Exports of Major Petrochemicals (Product-wise)

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

PRODUCT	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-10 (April Dec)	
	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
SYNTH. DETERGENT INTERMED.																
LINEAR ALKYL BENZENE	58080	20212	41921	13221	66716	27095	107596	51458	127449	66452	129549	70361	90199	74552	64682	40789
ETHYLENE OXIDE	26	28	60	74	160	272	30	46	29	38	318	516	254	416	493	683
TOTAL	**58106**	**20240**	**41981**	**13295**	**66876**	**27367**	**107626**	**51504**	**127478**	**66490**	**129867**	**70877**	**90453**	**74968**	**65175**	**41472**
PERFORMANCE PLASTICS																
ABS RESIN	41	32	1498	416	200	145	1636	1074	1687	1384	1307	988	1539	959	44	27
NYLON-6	442	393	1284	1079	1672	1562	1945	2296	3355	4082	3750	3709	2621	3456	2615	3405
POLYMETHYL METHACRYLATE	311	164	205	115	801	450	872	547	879	598	4378	2649	4414	3286	3874	3054
STYRENE ACRYLONITRILE	20	13	41	20	180	99	100	57	35	18	19	13	8	6	8	9
TOTAL	**814**	**602**	**3028**	**1630**	**2853**	**2256**	**4553**	**3974**	**5956**	**6082**	**9454**	**7359**	**8582**	**7707**	**6541**	**6495**
OLEFINS																
BUTADIENE	0	0	0	0	48052	22081	86303	41359	112839	59471	132948	59324	119951	81927	82116	41737
ETHYLENE	15	8	128	155	27	28	229	156	189	153	12897	4615	11	3	12	34
PROPYLENE	0	0	4	4	4	4	1	2	49	79	7006	2695	3	5	23560	11582
TOTAL	**15**	**8**	**132**	**159**	**48083**	**22113**	**86533**	**41517**	**113077**	**59703**	**152851**	**66634**	**119965**	**81935**	**105688**	**53353**

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Table-27: Exports of Major Petrochemicals (Product-wise)

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

PRODUCT	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-10 (April Dec)	
	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
AROMATICS																
BENZENE	66733	15607	36411	8744	192083	72278	238176	82990	441894	184827	323755	134665	409757	148391	299068	128003
MIXED XYLENE	6149	1167	47174	13908	13	9	11604	4923	31029	11064	194298	71181	110056	47770	30219	9009
ORTHO-XYLENE	5822	1247	61752	13762	8438	3093	101640	44771	234841	108858	133635	55609	104360	46791	136370	56061
TOLUENE	1083	715	5610	1589	577	274	665	392	1006	476	1961	788	2026	1171	1285	494
PARAXYLENE	84260	22832	443256	115269	363899	140398	454176	194188	543920	286389	740509	347683	491533	230101	350404	186091
TOTAL	**164047**	**41568**	**594203**	**153272**	**565010**	**216052**	**806261**	**327264**	**1252690**	**591614**	**1394158**	**609926**	**1117732**	**474224**	**817346**	**379658**
OTHER PETRO-BASED CHEMICALS																
ETHYLENE DICHLORIDE	0	0	0	1	147	270	14	6	18	11	681	1107	531	1109	17	5
BUTANOL	13	13	124	120	1386	858	801	708	1941	1457	1700	1615	2640	2443	1409	911
OXO ALCOHOL	0	0	138	122	178	347	82	224	127	286	510	470	448	663	302	420
2-ETHYL HEXANOL	0	0	21	84	1466	848	6	25	0	5	3	124	8	20	108	262
VINYL CHLORIDE MONOMER	0	0	13	7	70	24	4578	1661	201	120	2	15	24	14	0	0
EPICHLOHYDRINE	0	2	552	235	856	460	359	289	52	55	3	3	8	8	10	9
PROPYLENE OXIDE	3	1	0	0	0	0	0	5	20	33	280	379	66	62	0	0
PROPYLENE GLYCOL	122	53	296	178	374	233	527	388	392	286	729	481	894	737	1056	683
PHTHALIC ANHYDRIDE	74928	20574	57703	16621	50308	19410	54370	20763	62649	33567	71272	37480	41744	20662	17760	8506
STYRENE	288	303	217	151	715	457	373	340	210	197	2619	1505	4294	2914	679	443

(Contd. from pre-page)

Table-27: Exports of Major Petrochemicals (Product-wise)

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

PRODUCT	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-10 (April Dec)	
	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V	Q	V
VINYL ACTATE MONOMER	189	75	155	62	278	133	515	207	537	404	3093	1813	332230	630	2100	850
ISOPROPANOL	19	13	26	31	42	67	69	33	24	28	1395	609	986	550	53	48

(concluded)

Table-28: Imports of Petrochemicals (Group-wise)

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

PRODUCT	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-2010	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
SYNTHETIC FIBRES	189342	116283	154693	101630	192540	133101	161973	128878	157382	132075	140039	106558	120227	99137	54547	49813
FIBRE INTERMEDIATES	100898	37036	222268	76485	196886	90084	291614	131211	438779	207239	427254	226838	708552	301849	869998	320337
POLYMERS	381319	124808	450333	151961	416401	188240	721840	332046	711268	383435	1105076	583960	1230119	708662	1541327	850377
ELASTOMERS	122801	67160	178591	99768	210155	140912	239772	173074	285988	225193	341630	272896	290430	343409	279246	255508
SYNTH. DETERGENT INTERMED.	219	173	2938	1425	10135	4497	5562	2637	26494	12732	49051	23543	76357	47343	71684	42229
PERFORMANCE PLASTICS	19959	18058	31288	24527	30438	31957	36681	42054	45349	51995	56839	63032	67075	79134	63388	71358
OLEFINS	19747	4358	38661	19949	10396	5022	47998	13669	16570	10604	18712	8732	23726	10880	29316	13162
AROMATICS	256487	64077	402625	117610	426110	167942	470178	186499	351092	167585	633018	282280	520259	232590	493608	208245

Table-29: Imports of Major Petrochemicals (Product-wise)

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

PRODUCT	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-10 (April-	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
SYNTHETIC FIBRES																
ACRYLIC FIBRE	22200	14129	14325	9917	14506	12060	12009	10477	11958	12210	9427	9611	14015	15659	10630	11688
NYLON FILAMENT YARN	4762	5455	9085	9048	15961	16184	12348	16853	10144	15650	3974	5674	4840	7221	2269	3847
NYLON INDUSTRIAL YARN / TYRE CORD	13691	14034	15410	16255	19706	25179	16570	23673	14402	21060	7659	11903	0	0	0	0
POLYESTER FILAMENT YARN	115101	68125	98552	53439	120465	64374	99420	63124	103148	70560	100088	65910	83075	63013	30076	25923
POLYESTER STAPLE FIBRE	25812	11063	12057	6806	15372	8978	15808	9704	14213	9266	16119	10654	16483	11412	10655	7381
POLYPROPYLENE FILAMENT YARN	7610	3380	5140	6049	5895	5776	5654	4873	3197	2977	2500	2516	1711	1704	787	850
POLYPROPYLENE STAPLE FIBRE	166	97	124	116	635	550	164	174	320	352	272	290	103	128	130	124
TOTAL	**189342**	**116283**	**154693**	**101630**	**192540**	**133101**	**161973**	**128878**	**157382**	**132075**	**140039**	**106558**	**120227**	**99137**	**54547**	**49813**
FIBRE INTERMEDIATES																
ACRYLONITRILE	70293	28117	97919	35550	56122	28056	70053	40752	83816	59227	81832	61838	81568	57315	53554	33522
CAPROLACTUM	3133	1521	6211	3751	5018	4856	13348	12687	7060	7104	24903	24396	16981	19745	9145	6977
DIMETHYL TEREPHTHALATE	3264	786	12396	3063	3036	1095	6480	2283	11076	5082	4060	1855	4088	2760	2788	1231
MONO EHYLENE GLYCOL	23196	6339	82565	27634	108209	47112	94488	35827	162603	65133	254734	117025	424427	145042	524322	160045
PURIFIED TEREPHTHALIC ACID	1012	273	23177	6487	24501	8965	107245	39662	174224	70693	61725	21724	181488	76987	280189	118562
TOTAL	**100898**	**37036**	**222268**	**76485**	**196886**	**90084**	**291614**	**131211**	**438779**	**207239**	**427254**	**226838**	**708552**	**301849**	**869998**	**320337**

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Table-29: Imports of Major Petrochemicals (Product-wise)

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

PRODUCT	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-10 (April-	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
POLYMERS																
LOW DENSITY POLYETHYLENE	27924	9480	27721	10376	28812	14932	45868	25850	65905	42045	82025	46454	88875	55719	121238	71888
HIGH DENSITY POLYETHYLENE	115463	36144	109287	35812	89952	40279	138724	69121	138792	83131	255190	150540	274868	176619	331556	197043
POLYESTYRENE	9687	5131	12816	6410	9723	6867	14542	10281	20570	11847	21046	12218	14699	11796	13518	13429
POLYPROPYLENE (INC. CO-POLYMER)	104380	34716	98080	34028	96266	45279	128275	64398	129812	76283	211695	122776	285074	162450	334767	199965
EXPANDABLE POLYESTYRENE	942	422	1586	730	3168	1814	3571	2157	2912	2093	8947	6097	4703	3585	4508	2949
POLY VINYL CHLORIDE	57850	17520	106581	31541	91717	33185	266592	97503	223531	87969	355702	143614	338650	152028	450998	195134
LINEAR LOW DENSITY POLYETHYLENE	65073	21395	94262	33064	96763	45884	124268	62736	129746	80067	170471	102261	223250	146465	284742	169969
TOTAL	**381319**	**124808**	**450333**	**151961**	**416401**	**188240**	**721840**	**332046**	**711268**	**383435**	**1105076**	**583960**	**1230119**	**708662**	**1541327**	**850377**
ELASTOMERS																
STYRENE BUTADIENE RUBBER	49141	20655	62576	29175	75594	46752	69864	46316	100510	69604	112794	80051	98297	96105	105957	71337
POLY BUTADIENE RUBBER	22487	10055	17966	9431	15476	10077	17487	14514	23863	19292	28245	21872	23312	27877	36859	26634
ETHYL PROPYLENE DIMERS	1638	1267	7215	4657	10088	7412	10647	10235	13406	14063	17539	17048	15837	18996	16552	18591
ETHYL VINYL ACETATE	13487	5584	29734	11744	47341	24306	89531	41319	87213	50857	117775	71162	89773	76757	55237	48133
NITRILE BUTADIENE RUBBER	6517	4570	8518	6301	12239	9405	11924	10827	14095	13161	13270	12428	9924	14113	11325	10688
BUTYL RUBBER	29531	25029	52582	38460	49417	42960	40319	49863	46901	58216	52007	70335	53287	109561	53316	80125
TOTAL	**122801**	**67160**	**178591**	**99768**	**210155**	**140912**	**239772**	**173074**	**285988**	**225193**	**341630**	**272896**	**290430**	**343409**	**279246**	**255508**
SYNTH. DETERGENT INTERMEDIATES																
LINEAR ALKYL BENZENE	216	145	2937	1417	10121	4418	5522	2561	26325	12503	48753	23255	76115	46829	71616	42022
ETHYLENE OXIDE	3	28	1	8	14	79	40	76	169	229	298	288	242	514	68	207
TOTAL	**219**	**173**	**2938**	**1425**	**10135**	**4497**	**5562**	**2637**	**26494**	**12732**	**49051**	**23543**	**76357**	**47343**	**71684**	**42229**

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Table-29: Imports of Major Petrochemicals (Product-wise)

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

PRODUCT	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-10 (April-	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
PERFORMANCE PLASTICS																
ABS RESIN	4769	2801	10562	6206	8135	5930	7524	6631	12383	10858	13365	11550	21073	19409	21263	18628
NYLON-6	11083	12622	13712	13783	15352	20722	20186	28224	23061	32751	31035	41317	34919	50607	34105	45112
POLYMETHYL METHACRYLATE	2564	1999	4020	3094	4195	3879	5330	4962	5590	5367	6244	5847	5022	5741	5635	5940
STYRENE ACRYLONITRILE	1543	636	2994	1444	2756	1426	3641	2237	4315	3019	6195	4318	6061	3377	2385	1678
TOTAL	**19959**	**18058**	**31288**	**24527**	**30438**	**31957**	**36681**	**42054**	**45349**	**51995**	**56839**	**63032**	**67075**	**79134**	**63388**	**71358**
OLEFINS																
BUTADIENE	30	74	589	321	2326	1333	1106	818	249	244	4512	1522	3776	1443	10	20
ETHYLENE	19709	4264	38021	19582	7968	3592	21710	8179	16243	10203	14079	6982	19881	9163	29272	12925
PROPYLENE	8	20	51	46	102	97	25182	4672	78	157	121	228	69	274	34	217
TOTAL	**19747**	**4358**	**38661**	**19949**	**10396**	**5022**	**47998**	**13669**	**16570**	**10604**	**18712**	**8732**	**23726**	**10880**	**29316**	**13162**
AROMATICS																
BENZENE	5318	1249	9182	2433	8191	3942	18520	6932	6053	2749	20342	9675	51859	15208	99900	34214
MIXED XYLENE	684	178	50	58	241	60	4	5	17	50	0	1	1	1	2785	1130
ORTHO-XYLENE	5501	1174	14701	4020	70922	27619	39846	15157	33667	16172	109947	49924	87240	44327	34506	14650
TOLUENE	20600	4053	35255	7915	34945	11771	84252	27320	129118	53632	142896	53918	145719	57228	149417	57271
PARAXYLENE	224384	57423	343437	103184	311811	124550	327556	137085	182237	94982	359833	168762	235440	115826	207000	100980
TOTAL	**256487**	**64077**	**402625**	**117610**	**426110**	**167942**	**470178**	**186499**	**351092**	**167585**	**633018**	**282280**	**520259**	**232590**	**493608**	**208245**

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Table-29: Imports of Major Petrochemicals (Product-wise)

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

PRODUCT	2002-03		2003-04		2004-05		2005-06		2006-07		2007-08		2008-09		2009-10 (April-	
	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE	QTY.	VALUE
OTHER PETRO-BASED CHEMICALS																
ETHYLENE DICHLORIDE	179207	27398	237144	35980	173450	36263	273986	42064	216594	39029	184235	31418	210965	30979	128630	23534
BUTANOL	7965	2426	14728	4260	17929	6216	22449	9034	19399	10732	25237	15080	24623	15158	30269	14480
OXO ALCOHOL	0	0	477	339	2734	1255	857	895	996	1085	697	794	669	967	1056	1140
2-ETHYL HEXANOL	0	0	7791	2115	7028	3001	7352	3298	8882	6674	10629	5680	21205	11748	31595	16918
VINYL CHLORIDE MONOMER	79241	20917	91873	28414	122382	45152	49391	15819	121811	41052	114988	40148	120303	43350	50783	17818
EPICHLOHYDRINE	4178	1825	2934	1647	4742	2887	4458	3543	6821	7100	11452	9555	13693	10764	13641	8446
ISO BUTYLENE	18492	5366	19935	7312	59159	18049	41890	19191	37540	21387	39350	25490	32713	29472	30614	17318
PROPYLENE OXIDE	866	476	1350	722	2201	1407	1816	1551	3833	3158	3304	2442	4432	3530	7126	5057
PROPYLENE GLYCOL	6663	3473	8672	4074	10740	5955	12885	8678	16491	10625	18716	11352	26070	18275	18879	11528
PHTHALIC ANHYDRIDE	9695	2875	17669	5384	19906	8249	24092	10061	14133	7192	31203	16312	37465	19365	20928	9809
STYRENE	185775	62976	273177	92862	386444	197238	391333	182013	405715	223199	413840	230561	395725	207567	339284	169933
VINYL ACTATE MONOMER	18264	5008	20958	6570	29217	12419	41864	17478	40103	17908	53895	26570	50377	25881	53635	22113
ISOPROPANOL	36320	10191	8768	2477	9898	4473	2955	1684	2379	1457	2114	1237	2943	1807	4118	2515

(Concluded)

Table-30 : Top Five Export Destinations of Selected Petrochemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS.Lakhs)
ACRYLIC FIBRE	BANGLADESH PR	1539.59	1761.96
	BELGIUM	598.06	1078.59
	CHINA P RP	595.19	519.70
	SOUTH AFRICA	275.66	488.69
	GERMANY	274.75	484.56
	Product Total	**6439.07**	**9026.88**
NYLON FILAMENT YARN	ISRAEL	328.45	730.60
	TURKEY	518.57	673.26
	U K	162.22	366.75
	U ARAB EMIRATES	137.36	339.41
	SRI LANKA DSR	122.78	316.77
	Product Total	**2595.99**	**4711.44**
POLYESTER FILAMENT YARN	BRAZIL	25261.00	19725.97
	TURKEY	9294.99	8294.28
	U ARAB EMIRATES	4817.05	6373.68
	MEXICO	5125.43	4024.80
	AFGHANISTAN TIS	2879.96	3388.53
	Product Total	**91946.73**	**89852.92**
POLYESTER STAPLE FIBRE	SYRIA	20866.16	11057.06
	U S A	15519.89	8946.47
	INDONESIA	16635.95	8865.50
	EGYPT A RP	9862.33	5616.29
	BANGLADESH PR	6272.03	3760.77
	Product Total	**136370.25**	**78079.84**
POLYPROPYLENE FILAMENT YARN	THAILAND	72.56	165.96
	U ARAB EMIRATES	55.50	86.76
	NEPAL	176.27	86.46
	BANGLADESH PR	48.05	54.40
	SRI LANKA DSR	30.13	43.50
	Product Total	**571.38**	**688.46**
POLYPROPYLENE STAPLE FIBRE	U ARAB EMIRATES	297.20	295.09
	NEPAL	313.53	266.42
	IRAN	240.00	253.37
	SAUDI ARABIA	40.00	32.67
	CYPRUS	1.00	0.88
	Product Total	**893.41**	**849.42**

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Table-30 : Top Five Export Destinations of Selected Petrochemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS.Lakhs)
			(Contd..from pre-page)
ACRYLONITRILE	CHINA P RP	1847.03	619.76
	THAILAND	1000.00	314.12
	U S A	27.02	202.38
	COLOMBIA	2.35	41.14
	AUSTRALIA	0.20	2.10
	Product Total	2877.13	1183.86
CAPROLACTUM	CHINA P RP	7002.86	5407.66
	IRAN	326.70	340.64
	CHILE	330.00	166.26
	U S A	99.00	49.88
	SAUDI ARABIA	12.00	16.12
	Product Total	7772.70	5985.82
MONO EHYLENE GLYCOL	CHINA P RP	26765.34	8876.79
	PAKISTAN IR	2156.00	827.43
	U ARAB EMIRATES	1728.53	660.21
	ITALY	2973.00	293.77
	NEW ZEALAND	200.00	105.96
	Product Total	**34570.09**	**11193.53**
PURIFIED TEREPHTHALIC ACID	MALAYSIA	35955.00	13084.90
	ITALY	3996.00	1386.99
	EGYPT A RP	95.00	49.13
	CHINA P RP	50.00	6.87
	SRI LANKA DSR	4.94	2.12
	U S A	1.12	0.82
	U K	0.15	0.64
	NEPAL	1.00	0.23
	KOREA RP	0.02	0.02
	KOREA DP RP	0.01	0.01
	Product Total	**40103.23**	**14531.73**
LOW DENSITY POLYETHYLENE	TURKEY	1247.41	1086.97
	CHINA P RP	1522.87	642.82
	BANGLADESH PR	1159.60	467.98
	JORDAN	324.06	280.99
	U ARAB EMIRATES	313.72	230.92
	Product Total	**7535.81**	**4466.30**

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Table-30 : Top Five Export Destinations of Selected Petrochemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS.Lakhs)
			(Contd..from pre-page)
HIGH DENSITY POLYTHYLENE	CHINA P RP	63360.01	33639.98
	VIETNAM SOC REP	8409.57	5383.17
	MAURITIUS	2662.36	2773.66
	TURKEY	3956.11	2604.50
	SPAIN	2796.51	1501.94
	Product Total	101525.01	58931.47
POLYESTYRENE	U S A	8456.26	5973.17
	ITALY	5971.28	4120.81
	EGYPT A RP	5851.28	3994.82
	U ARAB EMIRATES	5396.85	3466.30
	BELGIUM	4388.10	2600.67
	Product Total	**60677.87**	**39922.24**
POLYPROPYLENE (INC. CO-POLYMER)	CHINA P RP	24041.73	16541.01
	PAKISTAN IR	24294.54	15664.44
	BRAZIL	16067.36	10635.02
	VIETNAM SOC REP	14527.00	9871.24
	NEPAL	10051.33	6856.25
	Product Total	**154991.77**	**101825.54**
EXPANDABLE POLYESTYRENE	BANGLADESH PR	674.02	333.78
	U S A	61.86	77.63
	ESTONIA	68.00	52.75
	CANADA	74.78	31.43
	MAURITIUS	16.22	11.38
	Product Total	937.04	539.76
POLY VINYL CHLORIDE	CHINA P RP	590.88	319.03
	NIGERIA	214.37	161.38
	PORTUGAL	255.78	93.29
	U ARAB EMIRATES	78.92	38.15
	SRI LANKA DSR	41.97	36.82
	Product Total	**1419.32**	**849.83**
LINEAR LOW DENSITY POLYTHYLENE	FRANCE	8468.08	5101.10
	U S A	1552.25	2702.12
	BELGIUM	3059.35	2276.02
	CHINA P RP	3905.11	1898.35
	NEPAL	1574.75	949.04
	Product Total	**26433.86**	**18066.51**

(Contd..on next page)

Table-30 : Top Five Export Destinations of Selected Petrochemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS.Lakhs)
			(Contd..from pre-page)
PVC COMPOUND	U ARAB EMIRATES	789.03	435.07
	KENYA	571.89	377.64
	THAILAND	680.22	360.74
	MAURITIUS	295.39	228.53
	SRI LANKA DSR	303.73	216.02
	Product Total	**3924.09**	**2449.81**
STYRENE BUTADIENE RUBBER	CHINA P RP	1089.99	742.74
	PAKISTAN IR	969.48	649.21
	KOREA RP	598.30	607.62
	U ARAB EMIRATES	613.21	408.43
	UKRAINE	543.35	334.52
	Product Total	**7431.20**	**5179.68**
POLY BUTADIENE RUBBER	CHINA P RP	418.71	167.57
	SRI LANKA DSR	196.42	128.34
	MALAYSIA	45.00	79.75
	U S A	514.34	48.43
	FRANCE	29.12	27.62
	SPAIN	14.36	17.44
	BELGIUM	27.00	15.52
	NETHERLAND	14.38	13.25
	INDONESIA	18.40	12.82
	IRAN	1.00	0.64
	Product Total	**1278.73**	**511.39**
ETHYL PROPYLENE DIMERS	U ARAB EMIRATES	1265.03	1103.28
	EGYPT A RP	272.17	259.41
	U S A	206.11	236.58
	BELGIUM	96.24	169.10
	ITALY	48.13	68.59
	Product Total	**2339.24**	**2197.90**
ETHYL VINYL ACETATE	EGYPT A RP	340.82	314.42
	U ARAB EMIRATES	293.31	283.33
	IRAN	225.05	212.74
	SAUDI ARABIA	138.57	107.56
	CHINA P RP	43.06	106.74
	Product Total	**1350.32**	**1319.77**

(Contd..on next page)

Table-30 : Top Five Export Destinations of Selected Petrochemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS.Lakhs)

(Contd..from pre-page)

NITRILE BUTADIENE RUBBER	CHINA P RP	1407.91	1397.22
	U S A	300.05	492.16
	THAILAND	267.00	317.27
	TURKEY	154.18	147.91
	JAPAN	76.71	141.57
	Product Total	**3179.54**	**3636.70**
BUTYL RUBBER	BRAZIL	108.00	93.76
	CHINA P RP	20.00	44.35
	VIETNAM SOC REP	150.00	42.60
	GERMANY	31.99	38.77
	U ARAB EMIRATES	14.55	12.26
	Product Total	**405.81**	**282.77**
LINEAR ALKYL BENZENE	U K	14907.00	13696.88
	VIETNAM SOC REP	16547.40	11837.46
	INDONESIA	10870.00	8081.38
	PAKISTAN IR	7778.40	7196.07
	THAILAND	7304.00	6407.28
	Product Total	**90199.42**	**74552.45**
ETHYLENE OXIDE	U K	113.40	174.23
	U S A	39.20	70.09
	U ARAB EMIRATES	40.83	67.30
	NETHERLAND	21.10	29.43
	GERMANY	16.82	28.60
	Product Total	**253.55**	**416.28**
ABS RESIN	U S A	1475.47	913.36
	CROATIA	18.00	15.01
	U K	15.62	9.56
	SPAIN	5.56	7.35
	UGANDA	5.00	2.55
	Product Total	**1538.74**	**959.04**
NYLON-6	U ARAB EMIRATES	737.44	1002.00
	SAUDI ARABIA	522.21	643.08
	SRI LANKA DSR	166.80	277.19
	MALAYSIA	116.91	210.02
	IRAN	155.73	168.68
	Product Total	**2621.08**	**3456.20**

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Table-30 : Top Five Export Destinations of Selected Petrochemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS.Lakhs)
			(Contd..from pre-page)
POLYMETHYL METHACRYLATE	NIGERIA	642.59	410.34
	U S A	162.81	374.27
	ITALY	793.39	341.38
	INDONESIA	265.08	327.39
	U ARAB EMIRATES	335.07	206.45
	Product Total	**4413.60**	**3285.86**
STYRENE ACRYLONITRILE	TANZANIA REP	5.00	3.29
	SINGAPORE	1.30	1.21
	ISRAEL	1.00	1.00
	BAHARAIN IS	0.42	0.66
	JORDAN	0.50	0.27
	Product Total	**8.24**	**6.42**
BUTADIENE	MALAYSIA	44285.00	33695.50
	KOREA DP RP	16600.00	15925.77
	THAILAND	14756.00	10667.64
	TAIWAN	21099.00	9934.19
	KOREA RP	12110.00	6191.78
	Product Total	**119951.47**	**81926.84**
ETHYLENE	NEPAL	8.91	1.86
	ANGOLA	0.87	0.67
	NETHERLAND	1.00	0.48
	GERMANY	0.14	0.03
	THAILAND	0.00	0.00
	Product Total	**10.92**	**3.04**
PROPYLENE	GHANA	1.08	2.63
	NIGERIA	0.20	0.88
	UGANDA	0.65	0.86
	MALAYSIA	1.00	0.27
	Product Total	**2.92**	**4.63**
BENZENE	SAUDI ARABIA	153635.03	54720.11
	SINGAPORE	58750.00	23726.42
	BELGIUM	64900.50	23267.62
	U S A	61214.00	22067.36
	SPAIN	22494.00	9642.63
	Product Total	**409757.06**	**148390.99**

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Table-30 : Top Five Export Destinations of Selected Petrochemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS.Lakhs)
			(Contd..from pre-page)
MIXED XYLENE	TAIWAN	24214.00	9045.43
	U ARAB EMIRATES	19821.10	8473.12
	INDONESIA	12443.00	8169.27
	KOREA RP	15738.00	6569.27
	PAKISTAN IR	7800.00	5491.17
	CHINA P RP	17356.00	4864.82
	IRAN	5280.00	2191.49
	SINGAPORE	5250.00	2020.99
	SAUDI ARABIA	1609.00	791.44
	EGYPT A RP	499.00	130.18
	SRI LANKA DSR	23.02	11.84
	KUWAIT	15.00	7.15
	SUDAN	8.00	3.41
	Product Total	**110056.12**	**47769.57**
ORTHO-XYLENE	CHINA P RP	59710.00	25869.81
	PAKISTAN IR	17550.00	8126.87
	INDONESIA	14650.00	7532.23
	MALAYSIA	6308.00	2823.88
	KOREA RP	6120.00	2431.22
	Product Total	**104359.65**	**46791.20**
TOLUENE	U ARAB EMIRATES	1789.00	882.07
	CHINA P RP	83.00	147.29
	ISRAEL	20.00	65.93
	SRI LANKA DSR	76.81	27.79
	BELGIUM	8.90	21.68
	Product Total	**2025.92**	**1171.16**
PARAXYLENE	INDONESIA	186210.20	93482.22
	PAKISTAN IR	157332.60	79592.51
	KOREA RP	53965.00	20964.83
	MALAYSIA	46250.00	15986.25
	TAIWAN	24750.00	10555.40
	Product Total	**491532.80**	**230101.30**
ETHYLENE DICHLORIDE	U S A	488.16	1027.55
	ISRAEL	20.00	33.37
	SOUTH AFRICA	16.70	25.16
	BULGARIA	6.00	23.19
	GERMANY	0.10	0.19
	Product Total	**530.96**	**1109.46**

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Table-30 : Top Five Export Destinations of Selected Petrochemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS.Lakhs)
			(Contd..from pre-page)
BUTANOL	CHINA P RP	1012.20	838.04
	NETHERLAND	500.00	399.94
	ITALY	155.93	230.42
	U S A	217.73	206.84
	SINGAPORE	229.00	175.80
	Product Total	**2640.16**	**2443.25**
OXO ALCOHOL	U S A	359.70	371.37
	ITALY	11.97	92.54
	BELGIUM	3.00	46.46
	BRAZIL	24.16	43.52
	SWITZERLAND	7.00	35.94
	Product Total	**448.12**	**662.68**
2-ETHYL HEXANOL	U K	0.10	12.34
	SRI LANKA DSR	8.00	8.14
	Product Total	8.10	20.48
VINYL CHLORIDE MONOMER	SYRIA	20.00	12.03
	TAIWAN	4.00	2.14
	U ARAB EMIRATES	0.00	0.00
	Product Total	**24.00**	**14.17**
EPICHLOHYDRINE	IRAN	4.14	3.81
	U ARAB EMIRATES	3.22	3.78
	INDONESIA	0.23	0.32
	GERMANY	0.05	0.19
	Product Total	**7.64**	**8.09**
ISO BUTYLENE	BHUTAN	30.50	5.70
	GERMANY	0.13	0.17
	Product Total	30.63	5.87
METAXYLENE	SAUDI ARABIA	10500.00	1966.73
	INDONESIA	300.00	123.90
	FRANCE	9.00	115.96
	BELGIUM	2.60	20.88
	TAIWAN	34.00	18.70
	Product Total	**10861.56**	**2255.47**
METHYL ISOBUTYL			

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Table-30 : Top Five Export Destinations of Selected Petrochemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS.Lakhs)
KETONE			*(Contd..from pre-page)*
	SINGAPORE	13.20	11.88
	NEPAL	0.33	0.40
	UNSPECIFIED	0.49	0.32
	Product Total	**82.26**	**71.91**
PIB	SINGAPORE	2630.20	1706.32
	U S A	1497.41	1025.70
	BRAZIL	389.68	209.19
	SAUDI ARABIA	129.84	182.80
	SOUTH AFRICA	87.60	63.83
	Product Total	**5215.16**	**3501.59**
POLYCARBONATE	SINGAPORE	372.19	1186.77
	SRI LANKA DSR	233.12	317.93
	INDONESIA	17.00	73.60
	HONG KONG	75.40	49.82
	KOREA RP	42.09	45.55
	Product Total	**963.39**	**1859.77**
PROPYLENE OXIDE	TURKEY	49.67	43.35
	U S A	16.50	17.24
	HONG KONG	0.25	1.43
	SRI LANKA DSR	0.05	0.04
	Product Total	**66.47**	**62.06**
PROPYLENE GLYCOL	U ARAB EMIRATES	403.99	325.86
	IRAN	220.00	171.44
	U S A	80.31	57.63
	SRI LANKA DSR	69.48	55.23
	CHINA P RP	34.31	42.41
	Product Total	**894.18**	**737.23**
PET	SAUDI ARABIA	40500.89	20944.05
	U S A	20306.89	11862.97
	ISRAEL	20302.65	11453.08
	U ARAB EMIRATES	14413.14	8192.46
	ITALY	13134.18	7919.84
	Product Total	**279167.77**	**153360.35**
UNSATURATED POLYSTER RESIN	IRAN	6224.46	4762.78
	U ARAB EMIRATES	2923.54	2113.29
	SPAIN	1276.05	1093.18
	SINGAPORE	677.27	712.88
	SAUDI ARABIA	724.97	551.95
	Product Total	**14197.14**	**11366.76**

(Contd..on next page)

Table-30 : Top Five Export Destinations of Selected Petrochemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS.Lakhs)
			(Contd..from pre-page)
ETHYL BENZENE	U S A	213.00	368.51
	KOREA RP	271.60	258.11
	VIETNAM SOC REP	30.00	38.08
	GERMANY	20.02	24.24
	U K	2.00	18.14
	Product Total	550.62	725.06
CELLULOSE ACETATE BUTYRATE	SOUTH AFRICA	10.00	10.07
	GERMANY	1.00	2.79
	CUBA	0.50	0.70
	TANZANIA REP	0.25	0.24
	Product Total	11.75	13.80
CELLULOSE ACETATE SHEET	U S A	14.40	77.77
	GERMANY	50.43	42.20
	BRAZIL	25.97	19.77
	BELGIUM	3.18	12.46
	ITALY	13.00	10.40
	Product Total	137.13	195.38
CELLULOSE NITRATE SHEET	MALAWI	31.24	69.99
	NIGERIA	9.20	4.19
	U ARAB EMIRATES	1.90	3.15
	BANGLADESH PR	4.00	2.27
	NEPAL	1.11	0.60
	Product Total	47.66	80.84
MELAMINE MOULDING POWDER	TANZANIA REP	183.24	174.68
	GABON	157.78	117.83
	SOUTH AFRICA	28.46	77.22
	INDONESIA	64.00	68.48
	PAKISTAN IR	59.29	50.86
	Product Total	765.17	627.25
POLYACETAL RESIN	CHINA P RP	86.00	169.30
	JAPAN	104.19	83.35
	BANGLADESH PR	48.25	43.36
	SRI LANKA DSR	28.00	28.48
	U S A	14.61	23.43
	Product Total	310.56	375.70
PHTHALIC ANHYDRIDE	SAUDI ARABIA	12753.00	7092.42
	U ARAB EMIRATES	10221.50	4881.23
	TURKEY	3760.03	1773.12
	EGYPT A RP	3633.00	1769.43
	ALGERIA	1558.00	683.94
	Product Total	41744.15	20662.30

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Table-30 : Top Five Export Destinations of Selected Petrochemicals During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (RS.Lakhs)
	(Contd..from pre-page)		
STYRENE	NETHERLAND	2559.00	1695.25
	IRAN	796.00	544.01
	U ARAB EMIRATES	761.73	492.92
	U S A	75.80	87.38
	TAIWAN	64.00	64.94
	Product Total	4293.78	2914.06
VINYL ACTATE MONOMER	U ARAB EMIRATES	352.46	181.09
	NETHERLAND	16.00	93.74
	SWITZERLAND	60.00	70.53
	KENYA	110.00	64.65
	NIGERIA	331330.00	50.41
	Product Total	332229.69	630.14
ISOPROPANOL	NIGERIA	331.23	203.43
	ITALY	93.00	55.71
	ISRAEL	106.00	54.11
	SINGAPORE	88.00	42.51
	TANZANIA REP	70.00	32.73
	Product Total	**986.09**	**549.66**

Note: Only top five destinations (countries) for various export products, arranged in descending order of value of exports, have been shown in this table.

(Concluded)

Table-31 : Top Five Sources (Countries) of Imports of Selected Petrochemicals to India During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
ACRYLIC FIBRE	NEPAL	3153.62	3674.09
	THAILAND	3280.13	2797.27
	GERMANY	1783.04	2111.03
	JAPAN	1608.24	2100.67
	CHINA P RP	1080.28	1247.23
	Product Total	**14014.64**	**15658.94**
NYLON FILAMENT YARN	CHINA P RP	1443.34	2165.21
	MALAYSIA	1657.79	1832.81
	FRANCE	669.05	1033.74
	SRI LANKA DSR	244.69	581.41
	ITALY	192.74	300.44
	Product Total	**4839.78**	**7221.08**
POLYESTER FILAMENT YARN	CHINA P RP	51055.88	35216.78
	THAILAND	9187.37	8055.90
	TAIWAN	4136.96	4043.20
	NEPAL	5893.11	3936.26
	KOREA RP	4340.65	3787.77
	Product Total	**83074.82**	**63013.46**
POLYESTER STAPLE FIBRE	MALAYSIA	5482.98	3445.41
	CHINA P RP	4542.04	2722.08
	KOREA RP	2135.33	1870.75
	GERMANY	820.39	1028.94
	INDONESIA	1442.77	661.55
	Product Total	**16483.26**	**11411.84**

(Contd..on next page)

Table-31 : Top Five Sources (Countries) of Imports of Selected Petrochemicals to India During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
	(Contd..from pre-page)		
ACRYLONITRILE	U S A	21563.64	15727.26
	U K	15448.94	13393.97
	BRAZIL	12760.40	9088.02
	NETHERLAND	6824.20	5397.99
	LATVIA	8816.40	4256.68
	Product Total	**81568.32**	**57315.29**
CAPROLACTUM	RUSSIA	12828.85	15163.20
	BELGIUM	2551.83	2855.26
	POLAND	1600.00	1726.90
	Product Total	**16980.68**	**19745.36**
MONO EHYLENE GLYCOL	SAUDI ARABIA	213284.18	76897.01
	KUWAIT	126802.14	43723.19
	IRAN	70845.36	19111.18
	IRAQ	5992.79	3197.11
	SINGAPORE	5342.06	1420.98
	Product Total	**424427.40**	**145041.61**
PURIFIED TEREPHTHALIC ACID	KOREA RP	51260.27	23156.54
	IRAN	43907.25	18965.31
	THAILAND	35709.05	13270.32
	TAIWAN	16421.57	7058.98
	SAUDI ARABIA	15937.69	5758.32
	Product Total	**181488.04**	**76987.22**
LOW DENSITY POLYETHYLENE	QATAR	13222.53	8821.53
	KOREA RP	8978.61	7065.38
	U S A	9465.89	6965.92
	MALAYSIA	17992.79	6436.59
	U ARAB EMIRATES	6959.19	5206.38
	Product Total	**88875.17**	**55719.47**

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Table-31 : Top Five Sources (Countries) of Imports of Selected Petrochemicals to India During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
	(Contd..from pre-page)		
HIGH DENSITY POLYTHYLENE	QATAR	53129.14	34315.26
	U ARAB EMIRATES	42156.00	31610.80
	SAUDI ARABIA	49109.00	27670.90
	KOREA RP	20664.07	13558.73
	U S A	20008.93	12163.72
	Product Total	**274868.37**	**176619.00**
POLYESTYRENE	KOREA RP	3924.85	2552.12
	TAIWAN	3719.34	2020.76
	SINGAPORE	2521.32	1587.77
	JAPAN	985.23	1543.77
	CHINA P RP	1158.68	1132.37
	Product Total	**14698.87**	**11796.27**
POLYPROPYLENE (INC. CO-POLYMER)	SAUDI ARABIA	73454.78	37949.60
	SINGAPORE	49557.68	29802.08
	KOREA RP	39037.57	23631.96
	U S A	31407.66	14383.32
	THAILAND	11277.94	8538.42
	Product Total	**285074.47**	**162450.48**
POLY VINYL CHLORIDE	KOREA RP	78458.97	36164.84
	TAIWAN	69341.79	32311.12
	CHINA P RP	64397.49	32068.41
	GERMANY	31497.23	12132.49
	U S A	23193.07	7611.76
	Product Total	**338649.56**	**152027.58**
LINEAR LOW DENSITY POLYTHYLENE	U S A	41663.40	28127.08
	SAUDI ARABIA	42479.62	24903.66
	U ARAB EMIRATES	21420.70	12624.33
	CANADA	16352.91	12598.21
	QATAR	12997.08	8982.11
	Product Total	**223250.11**	**146465.24**

(Contd..on next page)

Table-31 : Top Five Sources (Countries) of Imports of Selected Petrochemicals to India During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
	(Contd..from pre-page)		
STYRENE BUTADIENE RUBBER	KOREA RP	50924.24	51105.24
	TAIWAN	9280.12	8394.98
	RUSSIA	6761.63	7378.32
	U S A	4608.93	5036.33
	THAILAND	3746.15	3955.20
	Product Total	**98296.71**	**96105.49**
POLY BUTADIENE RUBBER	U S A	4456.85	5112.68
	KOREA RP	4437.03	4873.27
	FRANCE	2800.56	3682.99
	GERMANY	2753.41	3297.71
	IRAN	2418.00	3264.78
	Product Total	**23312.30**	**27877.18**
ETHYL PROPYLENE DIMERS	U S A	7847.95	9328.27
	NETHERLAND	3835.05	4623.41
	GERMANY	1416.23	1664.71
	KOREA RP	1152.13	1419.52
	JAPAN	369.57	489.50
	Product Total	**15837.09**	**18995.84**
ETHYL VINYL ACETATE	TAIWAN	33385.27	25243.61
	KOREA RP	17483.30	14384.67
	THAILAND	17157.64	13668.76
	BRAZIL	4432.91	4273.41
	BELGIUM	4432.84	4147.65
	Product Total	**89773.41**	**76757.28**
NITRILE BUTADIENE RUBBER	KOREA RP	4592.89	5726.14
	JAPAN	942.65	2224.23
	FRANCE	1286.85	2177.90
	U S A	724.15	906.79
	ITALY	492.18	775.49
	Product Total	**9924.16**	**14113.47**
	(Contd..on next page)		

Table-31 : Top Five Sources (Countries) of Imports of Selected Petrochemicals to India During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
BUTYL RUBBER	RUSSIA	28183.47	66763.05
	U S A	6058.16	10557.12
	U K	5973.39	10050.92
	FRANCE	5612.34	9414.77
	CANADA	2309.49	4535.91
	Product Total	**53286.72**	**109560.73**
LINEAR ALKALI BENZENE	IRAN	27520.97	16329.19
	QATAR	24660.90	15588.90
	SAUDI ARABIA	13659.89	10599.53
	U ARAB EMIRATES	5802.46	1799.75
	EGYPT A RP	1879.00	996.85
	Product Total	**76115.37**	**46829.28**
ABS RESIN	KOREA RP	13996.64	12638.00
	MALAYSIA	3332.62	3026.98
	TAIWAN	1385.12	1167.64
	CHINA P RP	792.96	842.10
	IRAN	529.52	467.13
	Product Total	**21072.59**	**19408.63**
NYLON-6	GERMANY	6165.09	11276.53
	TAIWAN	6676.14	7304.23
	KOREA RP	2745.42	3997.36
	THAILAND	2853.66	3633.01
	SINGAPORE	2288.15	3248.02
	Product Total	**34919.19**	**50606.78**
STYRENE ACRYLONITRILE	KOREA RP	3182.26	2136.94
	JAPAN	479.10	318.88
	THAILAND	255.37	195.63
	U K	197.50	157.81
	GERMANY	123.10	133.12
	Product Total	**6061.19**	**3376.56**

(Contd..on next page)

Table-31 : Top Five Sources (Countries) of Imports of Selected Petrochemicals to India During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
	(Contd..from pre-page)		
BUTADIENE	SAUDI ARABIA	599.50	800.09
	IRAN	3140.00	562.71
	U S A	13.30	40.03
	CHINA P RP	22.32	39.02
	GERMANY	0.92	1.16
	Product Total	**3776.13**	**1443.05**
ETHYLENE	IRAN	10474.07	4820.79
	SAUDI ARABIA	9325.89	4211.80
	U S A	21.39	74.17
	SINGAPORE	50.00	51.03
	NETHERLAND	2.40	2.55
	Product Total	**19881.00**	**9163.05**
PROPYLENE	CHINA P RP	31.48	220.66
	KOREA RP	33.35	40.83
	SWITZERLAND	3.05	9.81
	U S A	0.96	1.27
	U K	0.20	0.90
	Product Total	**69.16**	**273.71**
BENZENE	IRAN	31548.00	7231.74
	THAILAND	6037.00	3393.85
	KOREA RP	6085.00	2562.77
	SINGAPORE	3815.00	1037.82
	U ARAB EMIRATES	4246.00	900.69
	Product Total	**51858.77**	**15207.71**
ORTHO-XYLENE	IRAN	32133.52	18037.50
	SINGAPORE	13622.00	7327.67
	SPAIN	10420.27	4269.48
	ISRAEL	8464.56	3775.11
	SWITZERLAND	6246.00	3518.58
	Product Total	**87240.05**	**44326.59**

(Contd..on next page)

Table-31 : Top Five Sources (Countries) of Imports of Selected Petrochemicals to India During 2008-09

PRODUCT	COUNTRY	QUANTITY (MT)	VALUE (Rs.Lakhs)
	(Contd..from pre-page)		
TOLUENE	IRAN	49661.40	19221.80
	NETHERLAND	37196.00	13964.64
	SINGAPORE	19718.13	8928.98
	SPAIN	10596.66	3368.02
	KOREA RP	7267.78	2273.39
	Product Total	**145719.39**	**57227.87**
PARAXYLENE	MALAYSIA	120085.68	59956.93
	SINGAPORE	83619.59	39141.64
	INDONESIA	24462.46	12382.15
	IRAN	4812.53	3000.97
	U S A	2376.00	1262.63
	Product Total	**235440.48**	**115826.23**
PHTHALIC ANHYDRIDE	KOREA RP	14273.82	7516.97
	ISRAEL	7605.15	3922.60
	TAIWAN	4554.97	2597.84
	PAKISTAN IR	3931.41	1816.15
	INDONESIA	2738.00	1423.59
	Product Total	**37465.36**	**19364.83**
STYRENE	SAUDI ARABIA	205753.74	102884.08
	SINGAPORE	157547.64	88560.03
	KOREA RP	11465.00	6720.60
	NETHERLAND	5972.00	2398.37
	INDONESIA	3565.00	2334.87
	Product Total	**395724.86**	**207566.79**
VINYL ACTATE MONOMER	SINGAPORE	29457.97	15922.45
	TAIWAN	5482.84	3016.54
	IRAN	6601.00	2636.25
	U S A	5091.14	2385.41
	BELGIUM	2008.00	1101.53
	Product Total	**50377.49**	**25881.31**

Note: Only top five sources (countries) of imports of various products, arranged in descending order of value of imports, have been shown in this table.

Table-32 : Exchange Rates of Indian Rupee vis-à-vis US $

(Rs. /US $)

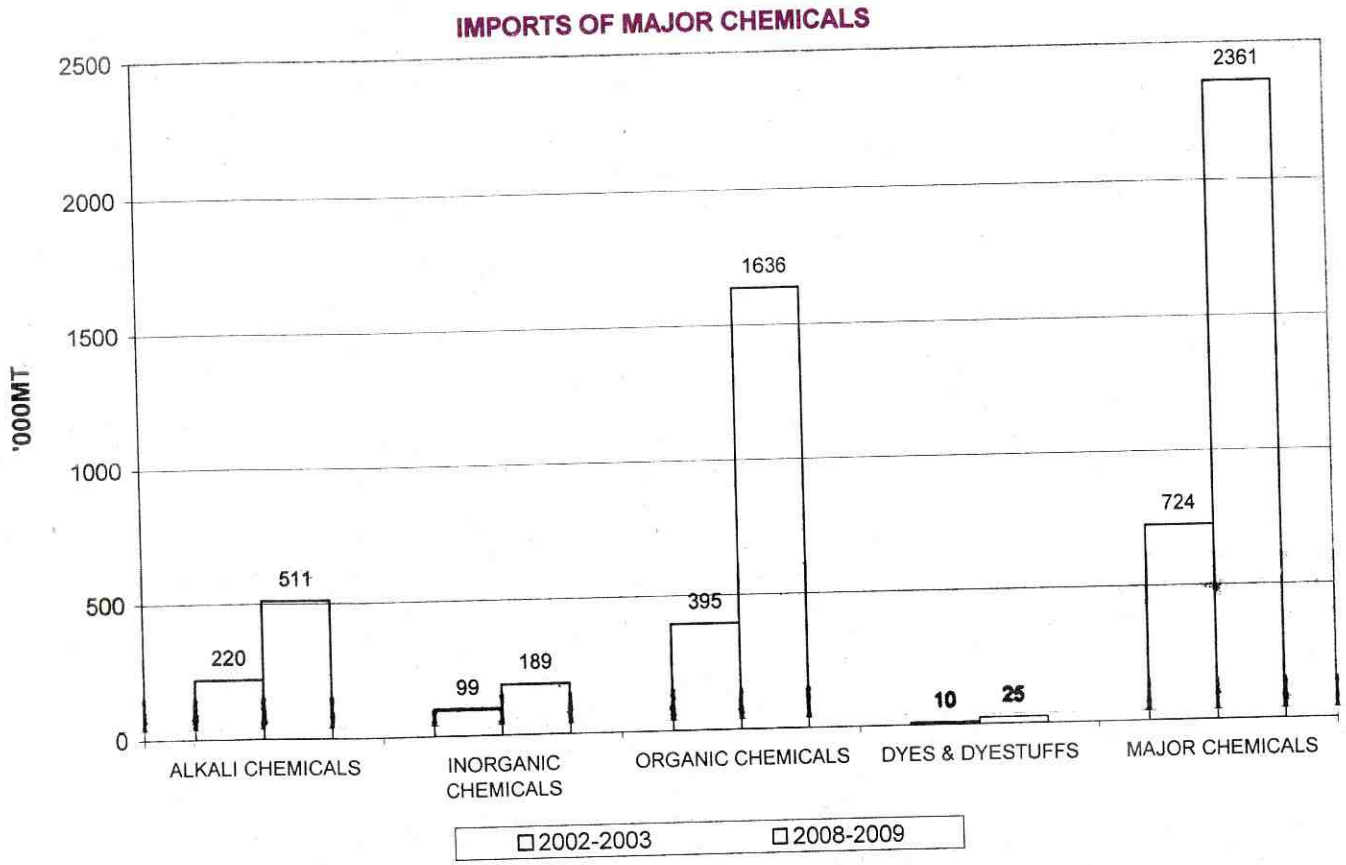
April, 08	40.46
May, 08	42.59
June, 08	42.95
July, 08	42.49
August, 08	43.79
Sept., 08	46.94
Oct., 08	49.25
Nov.08	49.84
Dec, 08	48.45
Jan. 09	49.02
Feb, 09	50.73
March, 09	50.95
April., 09	50.22
May, 09	47.29
June, 09	47.87
July, 09	48.16
August, 09	48.88
Sept., 09	48.04
Oct., 09	46.96
Nov.09	46.48
Dec, 09	46.68
Jan., 10	46.37
Feb, 2010	46.23
March, 2010	45.14
April, 2010	44.44
May, 2010	46.45
June, 2010	46.60
July, 2010	46.46
August, 2010	47.08

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

IMPORTS OF MAJOR CHEMICALS

(QTY IN 000 MT)

	2002-2003	2008-2009
ALKALI CHEMICALS	220	511
INORGANIC CHEMICALS	99	189
ORGANIC CHEMICALS	395	1636
DYES & DYESTUFFS	10	25
MAJOR CHEMICALS	724	2361



Section-V

Foreign Direct Investment (FDI)

Table-33 : Sector-wise FDI during 2007-08 to 2009-10

(Rs. Crores, %)

S.No	*Sector*	2007-08	2008-09	2009-10	Cumulative Inflow (2000-2010)	% to total Inflows
1	SERVICES SECTOR (financial & non-financial)	26,589	28,411	20,958	105,411	21%
2	COMPUTER SOFTWARE & HARDWARE	5,623	7,329	4350	43846	9%
3	TELECOMMUNICATIONS	5,103	11,727	12338	40706	8%
4	HOUSING & REAL ESTATE	8,749	12,621	13586	37369	8%
5	CONSTRUCTION ACTIVITIES	6,989	8,792	13544	35721	7%
6	POWER	3,875	4,382	6908	20919	4%
7	AUTOMOBILE INDUSTRY	2,697	5,212	5609	20677	4%
8	METALLURGICAL INDUSTRIES	4,686	4,157	1935	13440	3%
9	PETROLEUM & NATURAL GAS	5,729	1,931	1328	11504	2%
10	CEHMICALS (other than fertilizers)	920	3,427	1707	11274	2%

Source : Collated from the figures of Department of Industrial Policy & Promotion

Table–34 : Country-wise FDI Inflow to India in Chemical Sector during 2009-10 (Top 10 countries)

S.N.	*Country*	*FDI Inflows*		*%age Inflows*	*Cumulative %age*
		(Rs. Crore)	*(US$)*		
1	Germany	500.37	106.5	29.31	29.43
2	U.S.A.	198.13	42.42	11.61	41.04
3	Japan	196.68	41.12	11.52	52.56
4	Mauritius	192.56	40.5	11.28	63.84
5	NRI	94.71	19.36	5.55	69.39
6	Cayman Islands	84.52	18.39	4.95	74.34
7	Unindicated Country	56.7	11.84	3.32	77.66
8	Luxembourg	54.6	11.59	3.2	80.86
9	Singapore	47.96	9.99	2.81	83.67
10	Switzerland	47.68	10.28	2.79	86.46

Source : Collated from the figures of Department of Industrial Policy & Promotion

Table-35: Sector-wise Growth Rates under FDI during 2007-08, 2008-09 & 2009-10

(Percent)

S.N.	Sector	2007-08	2008-09	2009-10
1	Automobile Industry	115.07	93.25	7.62
2	Chemicals	-1.08	272.50	-50.19
3	Computer Software & Hardware	-52.29	30.34	-40.65
4	Construction Activities	57.98	25.80	54.05
5	Housing & Real Estate	312.49	44.26	7.65
6	Metallurgical Industries	-40.43	-11.29	57.64
7	Petroleum & Natural Gas	1328.68	-66.29	-31.23
8	Power	443.48	13.08	57.64
9	Services Sector (Financial & Non-Financial)	26.33	6.85	-26.23
10	Telecommunications	136.80	129.81	5.21

Source : Collated from the figures of Department of Industrial Policy & Promotion

Section-VI

Index of Industrial Production

Table-36 : Monthly Growth in 'Basic chemicals & chemical Products' vis-a-vis Manufacturing Sector During April, 2009 to June, 2010
{Based on Index of Industrial Production (IIP)}

(Percent)

Years	IIP (Overall)	Manufacturing	Basic chemicals & chemical Products included in Manufacturing
April, 09	1.13	0.39	-0.88
May, 09	2.08	1.84	2.07
June, 09	8.32	7.95	4.77
July, 09	7.19	7.37	6.94
Aug, 09	10.62	10.56	14.83
Sept, 09	9.34	9.65	20.57
Oct, 09	10.19	10.91	19.25
Nov, 09	12.03	13.13	17.48
Dec, 09	17.71	19.38	29.11
Jan, 10	16.29	17.42	6
Feb, 10	15.07	16.14	4.9
March,10	13.93	14.68	5.63
2009-10	**10.42**	**10.91**	**10.39**
April, 10	16.52	17.93	8.95
May,10	11.34	11.99	7.56
June,10	7.13	7.3	3.83
April-June, 10	11.55	12.22	6.72

Source: MOSPI, New Delhi

Table-37 : Annual Growth in 'Basic chemicals & chemical Products' vis-a-vis Manufacturing Sector During 2003-04 to 2009-10

{Based on Index of Industrial Production (IIP)}

(Percent)

Years	IIP (Overall)	Manufacturing	Basic chemicals & chemical Products included in Manufacturing
2003-04	7.02	7.37	8.65
2004-05	8.36	9.16	14.49
2005-06	8.15	9.13	8.34
2006-07	11.56	12.51	9.63
2007-08	8.46	8.99	10.59
2008-09	2.76	2.75	4.12
2009-10	10.42	10.91	10.39

Source: MOSPI, New Delhi

Table-38 : Weights of CHEMICALS & PETROCHEMICALS in

S.NO.	Product	WEIGHT	
		CURRENT SERIES (Base Year 1993-94=100)	NEW SERIES (Base Year 2004-05=100)
(1)	(2)	(3)	(4)
CHEMICALS			
1	SODA ASH	4.1705	1.8154
2	CAUSTIC SODA	4.9965	2.7888
3	LIQUID CHLORINE	0.6673	0.5988
4	TITANIUM DIOXIDE	1.1405	0.3993
5	ACETIC ACID	0.9039	0.7650
6	ACETONE		0.2104
7	PHENOL	0.9769	0.4443
8	METHANOL	1.0237	0.5684
9	FORMALDEHYDE	0.7013	0.2198
10	MALEIC ANHYDRIDE	0.8501	0.0814
11	QUINALPHOS		0.0625
12	MONOCROTOPHOS	3.5077	0.8257
13	ENDOSULPHAN	3.7015	0.2327
14	FENVALERATE		0.0452
15	CYPERMETHRIN		0.7356
16	ACEPHATE		0.8228
17	CHLORPYRIPHOS		0.4636
18	FENTHION		0.1056
19	TRIAZOPHOS		0.3011
20	TEMPHOS		0.0771
21	ALPHAMETHARIN		0.0287
22	CARBENDZIM(BAVISTIN)		0.0740
23	MANCOZAB		1.0962
21	2,4D		0.0074
25	ATRAZIN		0.0031

Table-38 : Weights of CHEMICALS & PETROCHEMICALS in IIP

S.NO.	Product	WEIGHT	
		CURRENT SERIES (Base Year 1993-94=100)	NEW SERIES (Base Year 2004-05=100)
(1)	(2)	(3)	(4)
PETROCHEMICALS			
26	ACRYLIC FIBRE		0.2610
27	NYLON FILAMENT YARN		0.0885
28	NYLON INDUSTRIAL YARN/TYRE CORD	0.7578	0.1684
29	POLYESTER FILAMENT YARN		1.4859
30	POLYESTER STAPLE FIBRE	6.8230	0.8949
31	ACRYLONITRILE		0.3901
32	CAPROLACTUM	0.2422	1.0170
33	MONO EHYLENE GLYCOL	0.5855	1.4274
34	PURIFIED TEREPHTHALIC ACID		5.2790
35	LOW DENSITY POLYETHYLENE		0.4641
36	HIGH DENSITY POLYTHYLENE	2.3395	2.2492
37	POLYESTYRENE	0.4708	0.8241
38	POLYPROPYLENE (INC. CO-POLYMER)		3.7008
39	POLY VINYL CHLORIDE		1.6901
40	LINEAR LOW DENSITY POLYTHYLENE	0.5074	1.4061
41	STYRENE BUTADIENE RUBBER		0.0459
42	POLY BUTADIENE RUBBER		0.1724
43	LINEAR ALKYL BENZENE	0.0294	2.1492
44	ETHYLENE OXIDE		0.4116
45	ABS RESIN		0.2199
46	BUTADIENE		1.0910
47	ETHYLENE	0.0122	4.8981
48	PROPYLENE		5.2629
49	BENZENE	1.3523	1.0688
50	PARAXYLENE		2.3648
51	PHTHALIC ANHYDRIDE	1.0055	0.6860
	Total	**36.7655**	**52.4901**

Note: 'Blanks' in column (3) indicate that those commodities are being introiduced in the New Series.

Section-VII

Inflation – Based on Wholesale Price Index (WPI)

Table-39 : Annual Inflation of Chemicals & Chemical Products vis-a-vis other commodities during 2000-01 to 2009-10

(Based on Wholesale Price Index)

Year	All Commodities	Food Articles	Manufacturing Products	Chemicals & Chemical Products
Weight	**100.00**	**15.40**	**63.75**	**11.93**
Inflation (%)				
2000-01	7.16	3.02	3.28	5.93
2001-02	3.60	3.28	1.83	2.80
2002-03	3.41	1.76	2.63	2.90
2003-04	5.46	1.28	5.67	1.90
2004-05	6.48	2.64	6.26	2.54
2005-06	4.43	4.83	3.07	3.58
2006-07	5.42	7.78	4.43	3.03
2007-08	4.61	5.46	4.92	5.52
2008-09	8.44	8.02	8.15	7.28
2009-10	3.85	14.72	3.20	4.37
Wholesale Price Index				
2000-01	155.7	170.5	141.7	164.4
2001-02	161.3	176.1	144.3	169
2002-03	166.8	179.2	148.1	173.9
2003-04	175.9	181.5	156.5	177.2
2004-05	187.3	186.3	166.3	181.7
2005-06	195.6	195.3	171.4	188.2
2006-07	206.2	210.5	179.0	193.9
2007-08	215.7	222.0	187.8	204.6
2008-09	233.9	239.8	203.1	219.5
2009-10	242.9	275.1	209.6	229.1

Source: Ministry of Commerce and Industry, New Delhi.

Table-40 : Monthly Inflation of Chemicals & Chemical Products vis-a-vis other commodities during April, 2009 to March, 2010

(Based on Wholesale Price Index)

(%)

Month	All Commodities	Food Articles	Manufacturing Products	Chemicals & Chemical Products
April, 09	1.31	8.59	1.75	3.19
May, 09	1.38	8.45	2.18	4.55
June, 09	-1.01	10.89	0.64	2.12
July, 09	-0.54	14.16	0.10	3.15
August, 09	-0.17	14.08	0.10	2.45
September, 09	0.46	14.20	0.53	2.40
October, 09	1.46	12.99	1.60	2.45
November, 09	5.55	18.66	4.33	4.52
December, 09	8.10	20.04	5.42	4.56
January, 10	9.44	18.41	7.30	7.78
February, 10	9.89	17.79	7.42	7.84
March,10	9.90	16.65	7.13	8.14
April, 09-March, 10	3.85	14.72	3.20	4.37

Source: Ministry of Commerce and Industry, New Delhi.

Section-VIII

Miscellaneous

Table-41 : Production of Molasses in India during 2004-05 to 2009-10

('000MT)

STATES/UT	Production of Molasses					
	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10 *
Andhra Pradesh	384	553	675	661	269	306
Assam	24	30	39	47	32	39
Bihar	118	208	242	173	126	196
Chhattisgarh	0	1	1	1	1	1
Gujarat	360	338	534	575	526	472
Haryana	286	343	600	1632	578	403
Himachal Pradesh	2	1	2	3	2	1
Jammu & Kashmir	0	0	0	0	0	0
Jharkhand	4	5	5	7	5	3
Karnataka	319	758	912	1273	1018	818
Kerala	8	31	16	11	9	9
Madhya Pradesh	59	83	105	154	106	98
Maharashtra	741	1784	3206	2888	2223	1896
Orissa	24	37	47	53	23	27
Punjab	174	114	190	185	138	146
Rajasthan	8	16	23	29	15	4
Tamil Nadu	576	1084	1288	1050	779	893
Uttar Pradesh	2418	3052	4686	3741	2259	2456
Uttarakhand	180	208	216	240	118	147
West Bengal	28	42	47	62	50	70
Others	0	0	20	30	22	23
All India	**5713**	**8687**	**12856**	**12815**	**8300**	**8007**

The figures shaded in yellow have been estimated on the basis of 'regression' analysis.

** : Production of Molasse during 2009-10 have been extrpolated based on 5 years average ratio of molases to sugarcane*

Table-42 : State-Wise / Year-wise Production of Alcohol during 2004-05 to 2008-09

(Crores litres)

State	2004-05	2005-06	2006-07	2007-08	2008-09	% Productio
Andhra Pradesh	7.66	6.32	6.10	7.69	16.09	7.10
Bihar	1.53	1.67	1.72	1.81	3.82	1.68
Gujarat	5.06	5.13	10.78	7.92	8.49	3.75
Haryana	2.95	2.99	3.82	5.10	4.06	1.79
Karnataka	10.48	14.36	18.89	19.80	20.63	9.11
Maharashtra	19.36	38.44	51.36	52.19	44.14	19.49
Punjab	9.40	22.57	61.47	31.40	37.34	16.49
Tamil Nadu	12.58	16.01	16.86	15.02	15.10	6.67
Uttar Pradesh	43.28	48.94	67.10	92.65	68.15	30.09
Uttaranchal	7.42	10.55	12.18	14.68	8.67	3.83
Total	119.73	166.98	250.29	248.28	226.49	100.00

Table-43 : Prices of Ethanol during 2004-05 to 2009-10

(Rs./ Litre)

Year	Import Prices	Export Prices
2004-05	16.24	20.38
2005-06	19.67	21.43
2006-07	27.49	24.95
2007-08	54.96	30.63
2008-09	35.87	35.00
2009-10 (April-Dec)	24.19	36.13

Domestic weighted average price (ex-distillery) in major Ethanol producing states were Rs.21.71 / litre & Rs. 21.44 / litre during 2009-10 & April, 10 respectively.

Table-44 : Employment in Chemicals and Petrochemicals during 2001-02 to 2009-10

S.NO.	Industry	Number of Person Employed								
		2001-02	2002-03	2003-04	2004-05	2005-06	2006-07*	2007-08*	2008-09*	2009-10*
	2	3	4	5	6	7	8	9	11	12
1	(A) Chemicals	402554	412606	386793	403457	423177	442635	463628	473284	484684
2	(B) Petrochemicals	226296	212598	218356	246760	256508	278258	295551	305662	312254
3	(C) Chemicals & Petrochemicals (A+B)	628850	625204	605149	650217	679685	720893	759180	778946	796938
4	(D) Industries Other than C&PC	7121516	7310744	7264932	7803407	8431995	9083230	9799067	10156266	10418552
5	(E) Total All industries	7750366	7935948	7870081	8453624	9111680	9804122	10558246	10935213	11215489
6	**Share in Employment (%)**									
7	Share of Chemicals to Total	5.19	5.20	4.91	4.77	4.64	4.51	4.39	4.33	4.32
8	Share of Petrochemicals to Total	2.92	2.68	2.77	2.92	2.82	2.84	2.80	2.80	2.78
9	Share of C & PC to Total	8.11	7.88	7.69	7.69	7.46	7.35	7.19	7.12	7.11
10	**Growth Rates in Employment (%)**									
11	(A) Chemicals		2.50	-6.26	4.31	4.89	4.60	4.74	2.08	2.41
12	(B) Petrochemicals		-6.05	2.71	13.01	3.95	8.48	6.21	3.42	4.53
13	(C) Chemicals & Petrochemicals (A+B)		-0.58	-3.21	7.45	4.53	5.99	5.26	2.60	3.15
14	(D) Industries Other than C&PC		2.66	-0.63	7.41	8.06	7.73	7.89	3.65	5.25
15	(E) Total All industries		2.39	-0.83	7.41	7.78	7.60	7.69	3.57	5.09

*: Extrapolated on the basis of 'Report on Effect of Economic Slowdown on Employment in India' by M/O Labour & Employment (Jan, 09) for Oct, 08-March,10 during preceding years for the period April, 06 to Sept,08

Source: Collated & derived from Annual Survey of Industries, Ministry of Statistics & Programme Implemntation, New Delhi