CHEMEXCIL'S

5-YEAR EXPORT PROMOTION

STRATEGY AND VISION DOCUMENT

Prepared by

TATA

TATA STRATEGIC MANAGEMENT GROUP

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Individual members may not endorse all aspects of this report.

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As always, it was an insightful experience for the team to materialize this report.

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Vision 2025

To excel in positioning basic chemicals, cosmetics and dyes exports from India as products of choice in the regional and global markets

Mission

To enable and assist the members of the Basic Chemicals, Cosmetics & Dyes Export Promotion Council (CHEMEXCIL) in enhancing exports of chemical products to realize the full potential in global markets through concerted efforts & deliver duties by the virtue of being a nodal government agency

Goals and Objectives

- ✓ To be an interface with the Industry and the Government of India to formulate Export-oriented Policies and also to create a favorable environment to augment exports of the above items from India.
- ✓ Participate in international exhibitions being held abroad and invites overseas delegations to India to promote our exports & establish long term strategic alliances
- ✓ Sponsor trade delegation, study teams and sales teams to various markets abroad
- ✓ Organize Workshops/Seminars on various trade and policy related issues
- ✓ Provide consultancy and guidance services for chemical exporters
- ✓ Assists its members in locating and pinpointing the source of their requirements. It also helps to effect a smooth trade deal between buyers and sellers to offer a total service package, completely free.
- ✓ Acts as a forum for representation of the trade related issues & as a liaison between the exporting community and the policy planners
- ✓ Deliver duties by the virtue of being a nodal agency appointed by the Ministry of Commerce & Industry for compliance of REACH legislation of the European Union.
- ✓ Participate in the Grievance Committee Meetings organized by the DGFT from time to time and take up issues of the member-exporters connected with Customs, Central Excise, Port Authorities, etc. and try to resolve the same
- ✓ Participate in the Review Meetings as well as Task Force Meetings being organized by the Ministry of Commerce & Industry from time to time to chalk out strategies for promotion of exports of the items coming under the purview of the Council with presentations covering suggestions/views being received from its members.
- ✓ Prepare and submit to the Ministry of Commerce & Industry Annual Action Plan for promotion of exports of the items coming under its purview, covering Budget Proposals for participation in various international exhibitions/Buyer Seller Meets/ being held abroad as well as in India for the benefit of its member-exporters.
- ✓ Issue Recommendation letters addressed to various overseas Consulates/Embassies in India for issue of Visas for the member-exporters for attending Exhibitions/delegations as well as export/business promotion tours abroad.
- ✓ Issue Non-preferential Certificates of Origin to its member-exporters for export of their items to various countries abroad on the condition that the said items are covered under our purview and are manufactured in India as authorized by the Ministry of Commerce & Industry
- ✓ Organize Export Award Function to felicitate outstanding exporters on their excellent export performance
- ✓ Become a 'one contact point' for sourcing information on any of the above products from India

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Executive Summary

With contribution of about 7% to the Indian GDP, the Indian Chemical Industry is an integral component of the Indian economy. It is a diversified industry covering over 80,000 commercial products. Chemical products contribute ~10.5% to India's foreign trade. In FY16, export of chemicals increased from INR 177,813 Cr to INR 181,381 registering 2% growth. At the same time, its imports came down marginally from INR 262,744 Cr to INR 261,817 Cr. Though this is a positive sign for Indian chemical industry and to an economy as a whole, there is a substantial trade deficit which needs to be worked on.

India is gradually progressing from an inward looking policy of self-reliance to the export of surplus products. Over the past five years, while total exports from India have grown by 8.6%, chemical exports have outpaced it and grown at 12.2%. With concerted efforts from government towards driving exports from the country, share of chemicals export as percentage of total national exports has grown from 9% in FY11 to 10.6% in FY16. Exports for products under CHEMEXCIL stood at ~USD 13 Bn in FY16 and have remained largely stable over the years.

Indian chemical industry is facing issues such as feedstock unavailability, lack of access to latest technology & R&D and unfavourable/ inverted duty structures have led to a few hiccups faced in the manufacturing and thus exports of chemicals. In order to tackle this, the government has taken initiatives such as Make in India to promote manufacturing of chemicals in India and increase exports. To augment these efforts, CHEMEXCIL is also playing an active role towards helping its member organizations in increasing exports.

Strategy report comprises detailed analysis of 4 chemical panels under CHEMEXCIL covering over 125 product categories traded across 190^{+} countries

Panel 1 comprises Dyes and Dye Intermediates. Owing to the enhanced focus on environmental pollution along with changing consumer demographics, several companies worldwide are leveraging upon their technical capabilities and developing newer products. To stay competitive, Indian manufacturers could build capabilities to cater to global requirements, such as high performance pigments.

Panel 2 comprises Organic, Inorganic and Agro chemicals. Given the wide product spectrum comprising commodity as well as a small chunk of petrochemical intermediates, this panel has different dynamics. For a large number of products, including the likes of basic aromatics like benzene and xylene to key feedstock materials like Terephthalic acid, scale and technology up-gradation are of prime importance for companies to stay competitive globally. For less commoditized products like agrochemicals, investments in R&D and veering their manufacturing excellence to wards global trends, such as higher focus on herbicides rather than insecticides could hold Indian exporters in good stead in years to come.

Panel 3 comprises Cosmetics, Toiletries and Essential Oils. Product requirements are largely driven by rapidly changing lifestyles and consumer demands for beauty and skin care products, which Indian companies need to build process and marketing capabilities. India is inherently strong in natural based products and with Ayurveda gaining substantial mileage globally, Indian manufacturers and exporters need to translate the ancient ayurvedic recipes into modern easy to use formats with superior quality.

Panel 4 comprises Specialty Chemicals and Castor Oil (Edible). Adherence to REACH regulations is imperative for exports to be sustained in the EU. Severe competition from global companies, specifically Chinese companies has been a bane to Indian exporters of specialty chemicals. In order to tackle this, scale and process efficiencies to reduce costs along with specific niche offerings catering to changing consumption patterns could be the way forward.

For each panel, export trends, overall global import trends, key market trends and competition posed by other countries have been analysed. Opportunities for chemical exporters to focus upon specific countries have been devised herewith using a country prioritization tool based on select parameters. These parameters incorporate aspects as such import share and import trends for each panel per country, ease of trading across borders in each country, India's trade relations with each country and India's share of a country's total exports. Top 20 export markets have been identified for each panel on the basis of these parameters.

Based on the prioritized list of countries, each of these countries have been bracketed in 4 sets which provide a picture of the country's imports vis-à-vis India's exports to that country.

Set 1 consists of countries with high global imports and high imports from India. These are large markets and hence it has been recommended that exporters could consider setting up local offices and engage with customers on a frequent basis. On the other hand, CHEMEXCIL could build a repository of requirements to help set up offices in these countries, could monitor product import trends and share insights with members.

Set 1			
Panel 1	**Panel 2**	**Panel 3**	**Panel 4**
Italy	Netherlands	Singapore	China
Turkey	Brazil	Japan	France
Mexico	-	UAE	Netherlands
Bangladesh	-	-	-

Set 2 consists of countries with high global imports but low imports from India. These are large markets where India has not been able to make substantial inroads. Exporters could build new market development teams and engage with consultants and research agents to identify newer opportunities for further penetration into these countries. CHEMEXCIL could bring in delegations from these countries to inform them about domestic manufacturing, product portfolio, compliance adherences etc.

Set 2			
Panel 1	**Panel 2**	**Panel 3**	**Panel 4**
Germany	Germany	USA	Germany
China	China	Germany	USA
USA	USA	China	Japan
Korea	Japan	UK	Italy
Japan	Belgium	France	Singapore
France	France	Netherlands	Korea
-	Korea	Spain	Belgium
-	-	Belgium	Canada
-	-	Italy	-
-	-	Canada	-
-	-	Mexico	-

Set 3 consists of countries with low global imports but high imports from India. These are smaller markets where India has a strong presence. It would be imperative for the exporters to sustain their market position in these countries by investing in R&D and catering to the swiftly changing market requirements in these countries. CHEMEXCIL could arrange for reverse buyer-seller meets in India to showcase a large product portfolio which can be sold to the existing customers and thus further penetrate these markets through cross-selling. To increase the penetration in these countries through effort-light means, it should adopt digital promotion/ e-engagement techniques like webinars etc.

Set 3			
Panel 1	**Panel 2**	**Panel 3**	**Panel 4**
Thailand	Spain	Saudi Arabia	Thailand
Netherlands	Italy	Malaysia	UK
Indonesia	UK	Bangladesh	Malaysia
United Kingdom	Mexico	-	Turkey
Belgium	Indonesia	-	-

Spain	Malaysia	-	-
Brazil	Saudi Arabia	-	-
Singapore	Canada	-	-
Pakistan	Switzerland	-	-
-	Thailand	-	-
-	Singapore	-	-

Set 4 consists of countries with low global imports as well as low imports from India. Exporters could consider operating in these countries through distributors and engage with CHEMEXCIL to identify and tap newer markets. CHEMEXCIL could track panel-wise market growth in these countries, to identify markets which could grow rapidly in next few years. At the same time, it could adopt an effort light digital promotion model.

Set 4			
Panel 1	**Panel 2**	**Panel 3**	**Panel 4**
Vietnam	Canada	Hong Kong	Spain
-	Switzerland	Russia	Indonesia
-	-	-	Russia
-	-	-	UAE
-	-	-	Saudi Arabia

Overall, each of these strategic directions will be implementable largely backed by the support from the government. Reassessing the basic customs duty for a plethora of raw materials is an aspect that the government could consider. This could have implications on the inverted duty structure which has posed as a big challenge to manufacturers of downstream chemicals. Further, India needs to strengthen its Free Trade Agreements with a large number of countries, particularly those in the Asia Pacific region, which currently procure chemicals from China by paying a much lower customs duty compared to chemicals from India.

The government could support on overcoming infrastructural challenges by allocating land and resources to chemical manufacturers. For instance - Dye clusters in PCPIRs under separate entities called “Dye Parks”. The government could also look to create a one-stop-portal/ database for all the exporters in India. These efforts would not only help overcoming structural deficiencies in manufacturing units but also make them competitive.

On the regulatory front, the government could reassess pollution norms and benchmark them against that in some of the other countries. Providing support in terms of subsides for REACH compliance is an aspect that the government could consider as this would help small Indian exporters stay competitive in the EU.

Concerted efforts from the government, CHEMEXCIL and member organizations will not only boost chemical exports in the near term but will also enhance competitive position in the global chemicals market.

I. Indian Chemical Industry

With contribution of about 7% to the Indian GDP, the Indian Chemical Industry is an integral component of the Indian economy. It is a diversified industry covering over 80,000 commercial products. It provides key building blocks to a host of downstream industries such as automobiles, textiles, papers, paints, soaps, detergents, pharmaceuticals among many others. Being a capital intensive industry and employing more than 2 million people, it is a critical part of the Indian manufacturing sector.

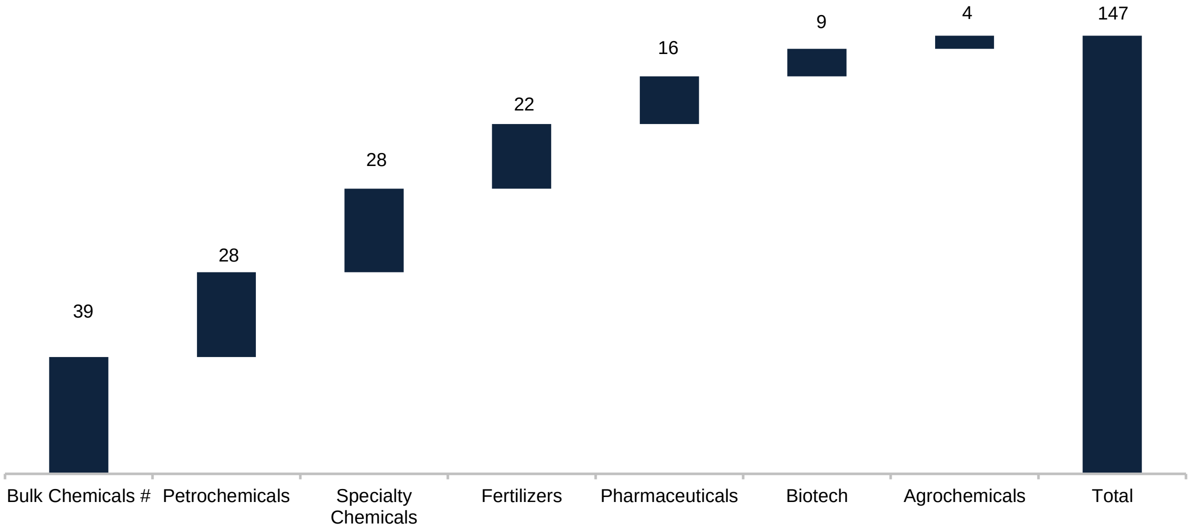


Figure 1: Sector-wise Breakdown of Indian Chemical Sales in FY15 (In USD Bn)
***Note**: # Bulk Chemicals includes Intermediates*

The industry is estimated to be valued at USD 147 Bn in 2015 and contributes 3% to the global chemical industry. As shown in figure 1, bulk chemicals constitute the largest component of Indian chemical exports. Western India has been the dominant region contributing approximately 50% to the Gross Value Added (GVA) for the Indian Chemical Sector. It ranks 14th in exports and 8th in imports of chemicals (excluding pharmaceutical products) globally. India's chemical trade balance is negative with imports being significantly higher than exports. Net imports have grown at 17% per annum during 2011-15.

Key issues faced by Indian Chemical Industry:

Indian Chemical Industry, which was predominantly a small scale sector in the early days, has now grown to a multi-dimensional sector and holds a recognized position in the world. However, there are some issues which are hampering the growth of this industry.

- *Feedstock Availability*: Key feedstock used for the manufacturing process in the Indian chemical industry is natural gas and crude oil. Fluctuations in oil prices, constraints in logistics and heavy dependence on imports often lead to unavailability of raw material or high prices. With the basic raw materials constituting a major share in the cost of production (more than 30%), feedstock availability issues further exacerbate this issue.

- *High Level of Fragmentation*: As was the trend before opening up of the Indian economy, the chemical industry in India is highly fragmented with large number of small-scaled players spread across the country. Their capacities are miniscule compared to global standards, which places India at a competitive disadvantage with regard to tapping export opportunities with large volumes.
- *Low levels of R&D*: The level of R&D investments in the Indian chemical sector is low at around 0.3% of total sales. The areas for strengthening of R&D in the chemical industry include improvements in manufacturing process for reduction in cost of production, application development to diversify demand, and new product development.
- *Low Level of Brand Development*: Majority of the Indian chemical manufacturers, except a few large manufacturers, focus on selling generic products without development of brands. Among small-scaled players, level of interest towards brand development is low. Against global counterparts, this can be construed as a position of disadvantage.

Government of India Initiatives:

The Government of India has taken several initiatives which are supporting the growth of the chemical industry in India. 'Make in India' is one of such initiatives. It is expected to foster growth in the Indian chemical industry by enabling duty rationalization for feedstock, improving infrastructure and R&D & skill development along with ease of regulation for setting up "Reverse SEZs" and tax incentives for R&D investments. The other key reform is the GST bill which got implemented from July 1, 2017. This key tax reform is expected to lower logistics cost by 10-15% and create a unified market across the country. To improve trade, SWIFT (Single Window Interface for Facilitating Trade) has been launched which enables importers or exporters to file a common integrated declaration, instead of 9 forms across 6 agencies.

Driven by consumption growth and government's initiatives, the Indian chemical industry has opened up multiple opportunities for both the MNCs and the domestic companies. Few of which are:

- Manufacturers enhancing profitability of their product portfolio by exploring adjacencies and vertical integration options
- MNCs further strengthening their position in the country by building strategic alliances, investing in market creation activities and by scaling up through M&A's
- Domestic companies with competitive cost structure leveraging export potential opportunities

Innovation and Growth in the Industry:

The R&D intensity of Indian companies has traditionally been limited, but this situation is slowly changing with more and more companies looking at R&D as a key source of building and sustaining competitive advantage. The investment in R&D for Indian companies will grow over 2% (as share of revenues) thereby bridging the competitive gap to a certain extent. The industry is also observing increasing tie-ups with academia which will facilitate the basic and applied research further. Innovation has not been constrained to R&D but applicable to the entire value chain. Innovations in market delivery, supply chain, go to Market propositions etc. are helping increase competitiveness. Indian manufacturers have been developing market access quite strongly with deeper understanding of regional needs and focus on brand development. Development of these intangible assets has enhanced competitive advantage for such players.

Strong end-use industries growth in the last couple decades has been the key factor to fuel the demand of the chemical products. This has prompted both multinational as well as domestic chemical companies towards growth. It has led to capacity additions along with import substitution. Further, as the country becomes self-sufficient, exports become a viable possibility.

II. India's Chemical Exports Scenario

India had an inward looking policy of self-reliance and exporting only the surplus. Its abhorrence towards international trade can be evidently seen during the phase of 1951-1960 and 1961-70, where India's exports lost its global market position. Policies, then, mainly revolved around strengthening the domestic manufacturing capabilities while tightening control on foreign trade. This, along with an overvalued domestic currency, hampered the growth of exports while the imports grew. The Indian exports were also affected as incentives were only available to a limited number of manufacturing industries and select agricultural exports (which were subjected to export duties at varying rates).

Over the period, share of imports as a share of GDP has increased, compared to exports (Ref Table 1).

Period	Average Annual Growth Rate		Share of GDP		India's Share in World's Exports
	Export (%)	Import (%)	Export (%)	Import (%)	
1951-60	0.7	8.6	6.3	8.0	1.4
1961-70	4.6	0.3	4.2	5.8	0.9
1971-80	6.8	3.7	5.8	6.7	0.5
1981-90	6.1	3.9	6.5	8.4	0.5
1991-97	11.4	14.3	9.9	10.6	0.6

Table 1: India's Past Import-Export Scenario
***Source**: Reproduced from Economic Policy reforms and the Indian Economy (2002)*)

The following table gives the scenario of exports of chemical products by India over the last 6 years (Ref Table 2). The national exports have grown at 8.6% CAGR over this period while the exports of chemical products have grown at 12.2%. With efforts from government and focus towards driving up exports from the country, share of exports of chemicals as percentage of total national exports has grown from 9% in FY11 to 10.6% in FY16.

***All the figures are in USD Million*[1]**

Products	FY11	FY12	FY13	FY14	FY15	FY16
Total National Exports	**1,86,388**	**2,36,445**	**2,59,416**	**2,97,658**	**2,91,746**	**2,55,913**
Chemicals Share in Total Exports	9.0%	9.2%	9.2%	9.3%	9.4%	10.6%
Total Chemical Exports	**16,755**	**21,827**	**23,941**	**27,791**	**27,356**	**27,072**
Inorganic Chemicals	1,310	1,398	1,139	1,290	1,346	1,180
Organic Chemicals	6,596	9,061	10,455	11,384	11,241	11,242

[1] Exchange rates considered for INR conversion from FY11 to FY16 are 61,62, 63, 64, 65 & 67 respectively

Tanning or Dyeing Chemicals	1,266	1,506	1,805	2,415	2,647	2,398
Misc. Chemicals	1,542	2,014	2,467	2,921	2,990	2,995
Plastic & Articles Thereof	2,945	4,083	4,446	5,337	4,773	5,121
Synthetic Rubber and Factice	29	46	29	38	58	66
Manmade Filaments	1,716	2,011	1,923	2,434	2,249	2,039
Manmade Fibres	1,351	1,710	1,677	1,972	2,051	2,032

Table 2: Indian Chemical Exports Scenario

Currently, total Indian exports stands at ~USD 288 billion out of which ~USD 27 billion is contributed by the exports of Chemical product. Figure 2 below indicates the percentage break-up of the segments contributing towards the exports of these chemicals.

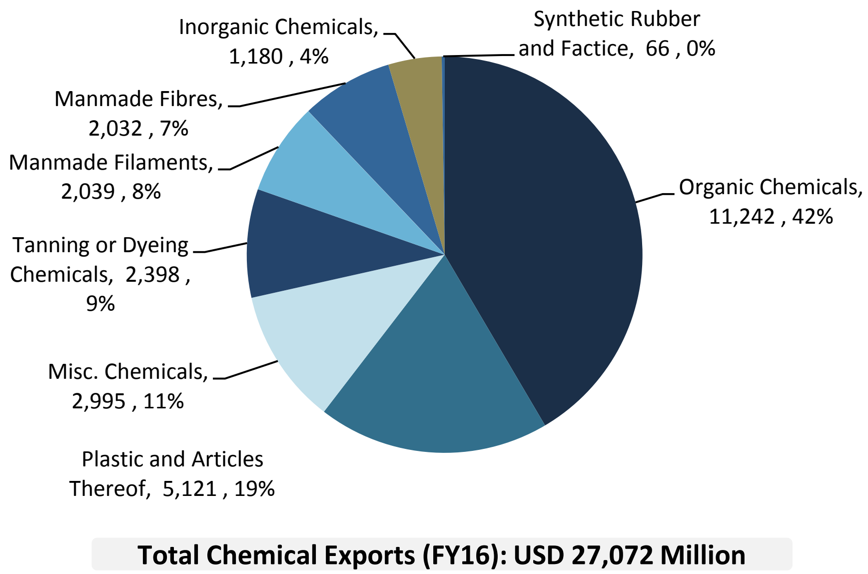


Figure 2: Indian Chemical Exports in USD million (FY16)

Out of the total chemical export, products exported under CHEMEXCIL are valued at USD 13.1 Bn in FY16. While the total chemicals exported came down marginally from USD 27.8 Bn in FY14 to USD 27.1 Bn in FY16, chemicals exported under CHEMEXCIL reduced from USD 13.7 Bn in FY14 to USD 13.1 Bn in FY16 (Ref. Figure 3).

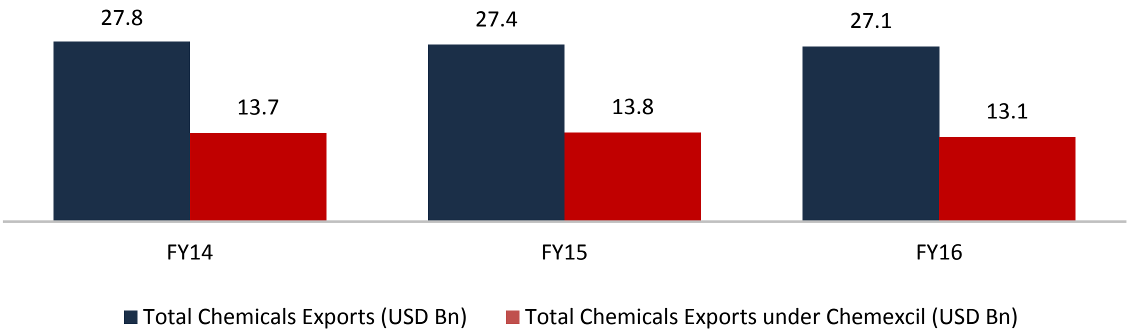


Figure 3: Total Chemical Exports Trends

Chemical products exported under CHEMEXCIL have a share of 48% in the total chemical products exported from India in FY16. The share was 50% and 49% in FY15 and FY14 respectively.

The government of India has been proactive in announcing a number of measures to improve the global competitiveness of the Indian Chemical industry. Industrial licensing has been abolished in most of the chemical sub-sectors, excepting a small list of hazardous chemicals. Also, FDI up to 100% in the chemical sector has been approved.

In order to put chemical exports on a pedestal of high growth trajectory, India needs a market diversification strategy based on the changing dynamics of growth in the world economy. India's bilateral trade engagements have been largely with the industrial powers or driven by multiple considerations. In the future, it is expected that India will engage with regions and countries that are not only promising markets but are also major suppliers of critical inputs and have complementarities with the Indian economy.

III. The New Free Trade Policy (FTP) and the Government Initiatives

The government aims to raise the share of India's exports from the existing 2% to 3.5%. The focus is therefore to increase the exports of merchandise and services from USD 465.9 billion in FY14 to approximately USD 900 billion by FY20. And in order to help the country to achieve such a position of leadership on an international trade platform, government has been talking numerous measures through it its new foreign trade policy (FTP) FY15-20. The policy aims to create an export promotion mission by helping to boost the various sectors of the economy and thereby promote the diversification of India's export basket. This will not just improve India's competitiveness but will expand India's market, increase demand for Indian products which will further accelerate the 'Make in India' initiative and provide a mechanism to rationalise imports and reduce the trade imbalance.

In order to successfully bring in effect the new policy the government firstly plans to address the in-house challenges such as infrastructure bottlenecks, constraints in manufacturing high transaction costs, and complex procedures. On the market and product strategy front, it aims to develop a market strategy that is focused on strengthening relations with its traditional markets, supply inputs of high quality and exports products that brings a higher value addition from these markets. The government is committed on transforming India into a manufacturing and exporting hub by making India's product of world class standard. For the same, it has set up a roadmap to raise the quality of products, enhance the capacity and set up measures to protect consumers.

Talking of the external strategies, the country may have many FTAs signed but the lack of information about FTAs is a common complaint. So to address this problem, an intensive FTA outreach programme has been launched. The information is also now available online on the website of the Department of Commerce, including FAQs and a web portal on FTAs has also been developed. Besides that, an 'Impact Analysis' of FTA has been instituted so as to keep track on whether the concessions under these agreements are optimized and have resulted in meaningful gains.

On the policy and scheme front, various measures are being taken to counterbalance the infrastructural inefficiencies and associated costs involved, to provide exporters a level playing field. Schemes namely Merchandise Exports from India Scheme (MEIS), Duty Exemption & Remission Schemes, Market Access Initiative (MAI) Scheme, Marketing Development Assistance (MDA) Scheme etc. are been incorporated so as to provide financial, procedural assistance and to help encourage exporters in a big way. For the problems associated with infrastructure, the Dept. of Commerce is been working with states to fill the gaps through the ASIDE (Assistance to States for Developing Export Infrastructure and Allied Activities) Scheme, it is also in the procedure of taking actions to strengthen the SEZs(Special Economic Zone) and make them more viable for manufacturing exports. In terms of complexities related to trade procedures, Directorate General of Foreign Trade has constituted two Task forces based on which the Ministries and Departments are taking steps to simply the administrative procedures and reduce transaction costs. Further in order to boost the confidence of new entrepreneurs and encourage them to be a part of the global trade schemes such Niryat Bandhu will function to provide extensive trading programmes.

Moreover it is important to keep a track of all the initiatives and to ensure that they are been implied in the rightful manner for which two institutional mechanism are being put in place for regular communication with stakeholders, namely, a Board of Trade which will have an advisory role and a Council for Trade Development and Promotion which will have representation from State and UT Governments. This indicates that setting up policy would not suffice to beat the existing challenges, but a consolidated and coordinated effort of all the stakeholders is critical to drive the success of the nation.

IV. Key Assumptions

- Trend analysis for all the panels has been carried out based on the trade volume information
- Country prioritization and competition analysis has been carried out based on the trade value
- Financial year has been considered for India’s export analysis while Calendar year has been considered for Global Trade analysis
- Analysis of India’s exports is done using DGCIS data (which is available at an 8 digit level) whereas analysis of global imports is done using UN Comtrade data (4 digit level)
- CHEMEXCIL has defined panels at an 8 digit HS code level while for global imports, since 8 digit HS codes were not available, the 4 digit import data was put in unique panels based on the share of 4 digit HS codes in India’s exports.

  Example 1: If 80% of HS code 3314 falls under Panel 3 and 20% under Panel 4, HS code 3314 would be assumed to be entirely in Panel 3 for global import analysis.
- In some cases, a given product category may be a part of ‘Panel A’ for India exports and ‘Panel B’ for Global imports. This happens because products (8 digit HS codes) of a particular product category (4 digit HS codes) may come under multiple panels. They are included under specific panel on the basis of their revenue contribution in ‘India exports’/ ‘Global imports’

Reader can refer to the ‘Annexure’ to find out in which panel a particular product (8 digit HS code) is considered for ‘India Export’/ ‘Global Import’ analysis

Panel 1

Dyes & Dyes Intermediates

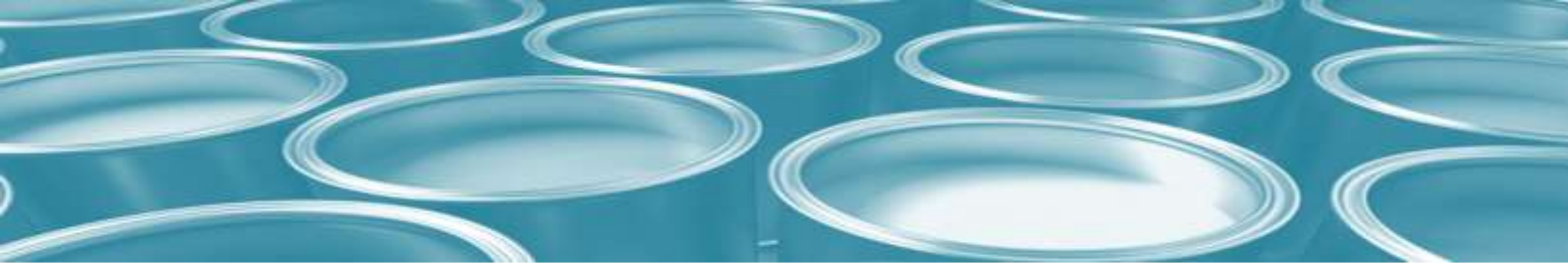
V. Panel 1- Analysis

A. India Exports (Volume Trend Analysis) - Panel 1

Following product categories are classified under this panel for the analysis of India's export:

HS Code	Description
2902	Cyclic hydrocarbons
2904	Sulphonated, nitrated or nitrosated derivatives of hydrocarbons, whether or not halogenated
2905	Acyclic alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives
2907	Phenols; phenol-alcohols
2917	Polycarboxylic acids, their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives
2921	Amine function compounds
3202	Synthetic organic tanning substances; inorganic tanning substances; tanning preparations,whether or not containing natural tanning substances; enzymatic preparations for pre-tanning
3204	Synthetic organic colouring matter, whether or not chemically defined; preparations as specified in note 3 to this chapter based on synthetic organic colouring matter; synthetic organic products of a kind used as fluorescent brightening agens or as luminophores, whether or not chemically defined. Synthetic organic colouring matter and preparations based thereon as specified in note 3 to this chapter:
3205	Colour lakes; preparations

Table 3: Panel 1- India's Exports: Product Category Descriptions



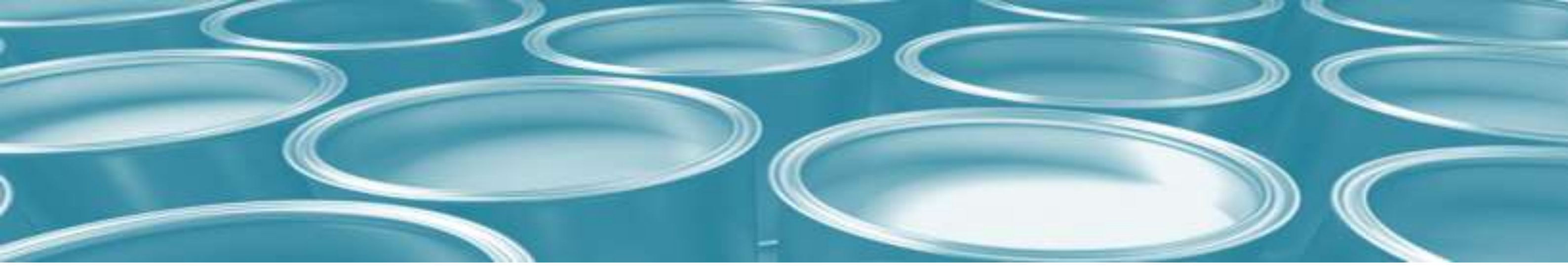
a) ***India Exports: By Product Category***

This panel consists of two groups (Dyes and Dyes Intermediates) with total 18 product categories. Group 1 - Dyes includes 5 product categories whereas Group 2 - Dyes Intermediates includes 13 product categories. In Group 1, 3 product categories (3204, 3202 and 3205) contribute 99.9% (By volume), whereas in Group 2, 6 product categories (2905, 2917, 2921, 2904, 2907 and 2902) form 89.9% (By volume).

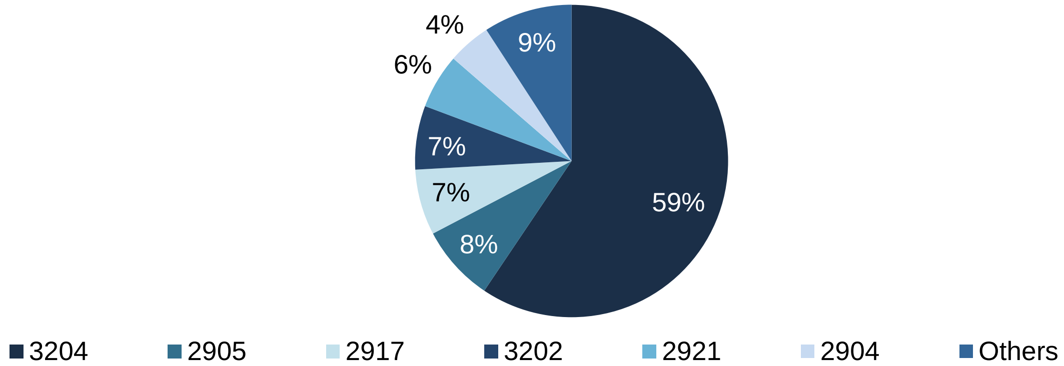
Following table shows a brief snapshot of this panel with contribution from key product categories, key products and major export market for India.

Sr. No.	Product Categories	Key Products	% volume share in Product Category Export	Key Export Markets for India
Group 1 – Dyes				
1.	3204	Reactive blacks	14%	Turkey, USA, Bangladesh, Italy, Germany, Indonesia and Brazil
		Pigment blue 15	9%	
		Optical whitening agents	7%	
		Acid blacks	6%	
		Reactive blues	6%	
		Reactive reds	5%	
2.	3202	Synthetic organic tanning substances	92%	China, Singapore, UAE, Taiwan and Pakistan
3.	3205	Colour Lakes	100%	Kenya, Ghana, Tanzania, South Africa, Peru and UAE
Group 2 – Dyes Intermediates				
1.	2905	Saturated Methanol	94%	Romania, UAE, Sri Lanka and Turkey
2.	2917	Phthalic Anhydride	100%	Saudi Arabia and UAE
3.	2921	Dichloroaniline	30%	China, USA, Germany, Japan, Netherlands and Mexico
		Xylidine	10%	
		P-Phenylenediamine	7%	
		Other Toluidines	6%	
		Ortho Chloro Paranitroaniline	6%	
		P-Chloroaniline	5%	
4.	2904	Vinyl Sulphone	46%	Korea, Taiwan, Turkey, China, Germany, Spain and Brazil
		Sodium Meta Nitrobenzene Sulphonate	24%	
		Dinitrochlorobenzene	12%	
		P-Nitrochlorobenzene	6%	
5.	2907	P-Cresol	67%	Germany, USA, China, Korea, Spain and Netherlands
		Resorcinol	12%	
		Beta Naphthol	12%	
6.	2902	Iso-butyl Benzene	97%	USA and China

Table 4: Panel 1- Key Product Category Details



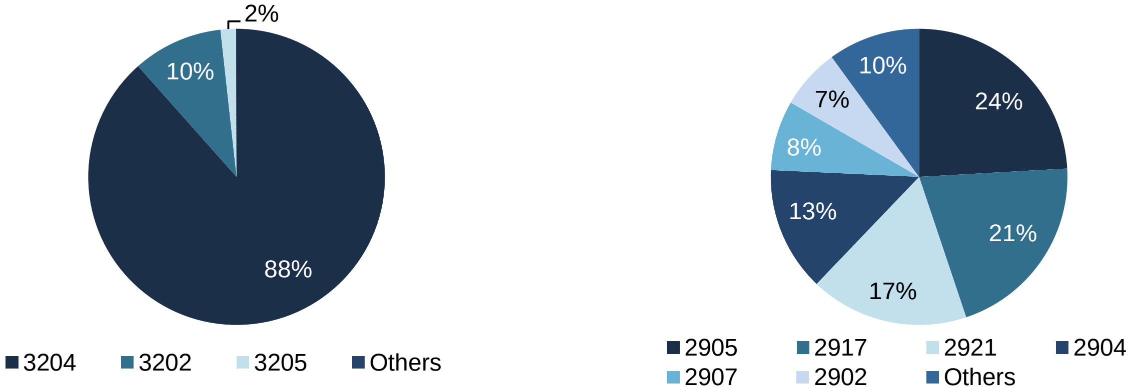
In FY16, India exported 594,496 MT of products under this panel registering 2.3% volume growth over FY15.



Total Volume Exports (Panel 1)
594,496 MT

Figure 4: Panel 1: India's Exports: Overall Top Product Categories (By Volume)

In Group 1, India exported 399,392 MT of products in FY16 registering a 3.5% volume growth over FY15. In Group 2, India exported 194,104 MT of products in FY16 which remained stable over the previous year.

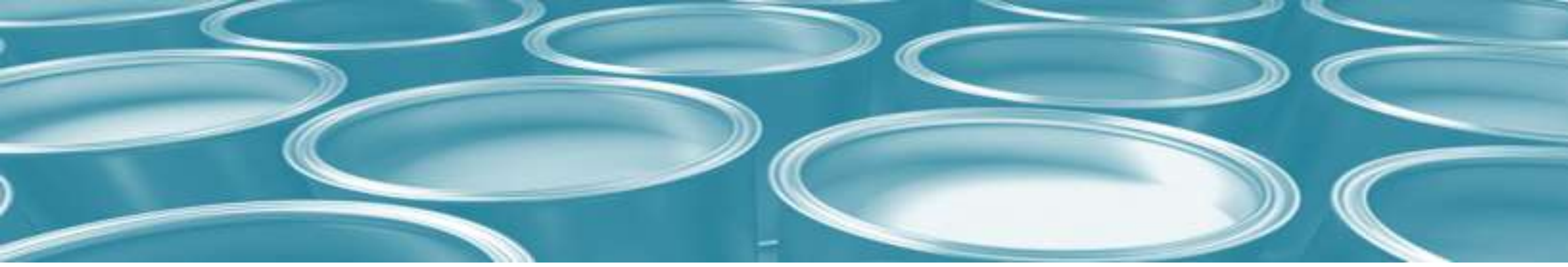


Total Volume Exports (Dyes)
399,392 MT

Total Volume Exports (Dyes Intermediates)
195,104 MT

Figure 5: Panel 1: India's Exports: Group-wise Top Product Categories (By Volume)

Under group 1, product category 3204 has seen a marginal growth in last 2 years. In group 2, product category 2917 export volume has increased by 74% over 2 years whereas product categories 2905 export has slumped drastically registering 44% decline in export volume.

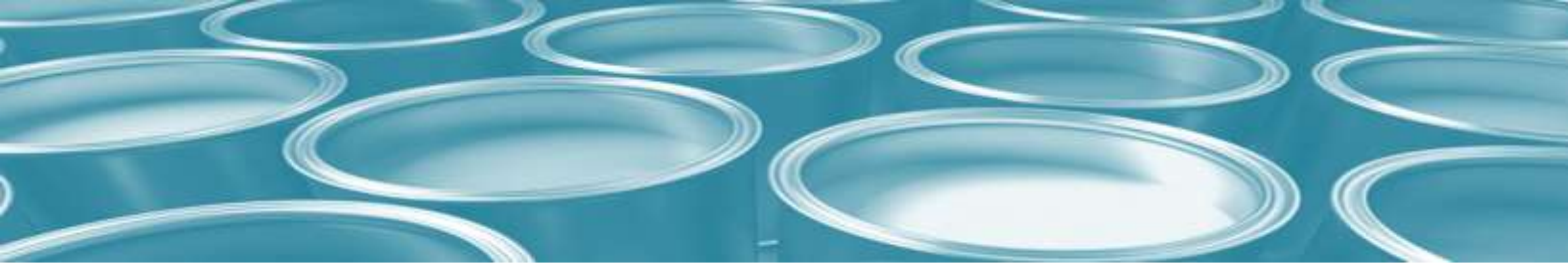


Row Labels	FY14 Quantity(MT)	FY15 Quantity(MT)	FY16 Quantity(MT)	Volume Trend (FY14-16)	FY 14-15 Growth	FY 15-16 Growth	FY 14-16 Growth
3204	331,825	340,274	353,222		3%	4%	6%
3202	41,990	39,096	39,225		-7%	0%	-7%
3205	6,758	6,092	6,736		-10%	11%	0%

Table 5: Panel 1: India's Exports: Top Product Category Trend - Group 1

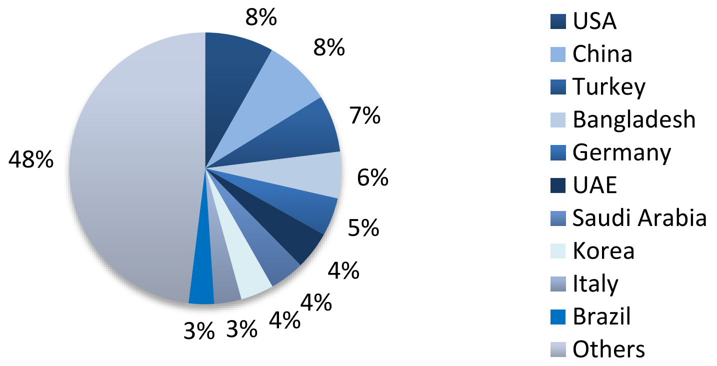
Row Labels	FY14 Quantity(MT)	FY15 Quantity(MT)	FY16 Quantity(MT)	Volume Trend (FY14-16)	FY 14-15 Growth	FY 15-16 Growth	FY 14-16 Growth
2905	84,620	51,554	46,967		-39%	-9%	-44%
2917	23,182	38,634	40,448		67%	5%	74%
2921	34,615	30,519	33,677		-12%	10%	-3%
2904	29,713	28,357	26,479		-5%	-7%	-11%
2907	12,488	14,520	14,891		16%	3%	19%
2902	14,796	14,354	12,896		-3%	-10%	-13%

Table 6: Panel 1: India's Exports: Top Product Category Trend - Group 2



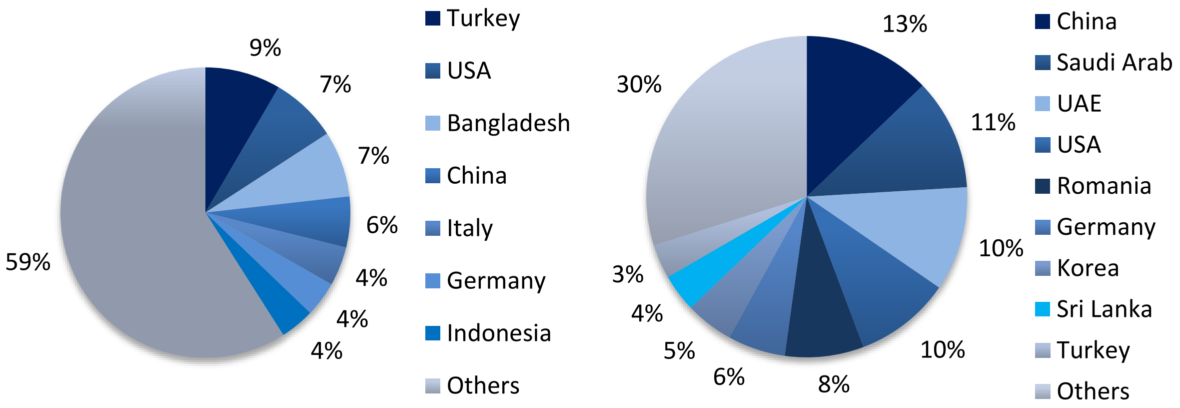
b) *India's Exports: By Importing Country*

In FY16, India exported 594,496 MT of products under this panel registering 2.3% volume growth over FY15. As shown in following figure, 10 countries contributed 52% of India's export under this panel. Globally, major importers of group 1 are Turkey, USA and Bangladesh while major importers of group 2 are China, Saudi Arab UAE and USA.



Total Indian Exports Volume (Panel 1)
594.496 MT

Figure 6: Panel 1: India's Exports: Overall Top Importing Countries (By Volume)



Total Volume Exports (Dyes)
399,392 MT

Total Volume Exports (Dyes Intermediates)
195,104 MT

Figure 7: Panel 1: India's Exports: Group-wise Top Importing Countries (By Volume)

As shown in table 7, in Group 1, top 10 export destinations form 51.7% of India's export under this group. Share of top 10 countries in India's export has decreased from 53.1% to 51.7% from FY15 to FY16. In Group 2, top 10 export destinations form 73% of India's export under this group. Share of top 10 countries in India's export has increased from 62.6% to 73% from FY15 to FY16.

Country	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14-15 Growth	FY 15-16 Growth	FY 14-16 Growth
Turkey	31,441	31,087	33,648		-1%	8%	7%
USA	24,834	26,246	29,626		6%	13%	19%
Bangladesh	23,998	28,503	29,394		19%	3%	22%
China	23,550	22,120	22,573		-6%	2%	-4%
Italy	18,385	17,904	17,373		-3%	-3%	-6%
Germany	17,510	15,689	15,640		-10%	0%	-11%
Indonesia	14,287	14,268	15,262		0%	7%	7%
Singapore	13,828	12,661	14,592		-8%	15%	6%
Pakistan	16,491	17,667	14,254		7%	-19%	-14%
Brazil	18,559	18,909	14,099		2%	-25%	-24%

Table 7: Panel 1: India's Exports: Top Importing Country Trend - Group 1

Country	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14-15 Growth	FY 15-16 Growth	FY 14-16 Growth
China	24,122	23,921	25,173		-1%	5%	4%
Saudi Arabia	14,839	19,388	21,937		31%	13%	48%
UAE	16,305	23,558	20,594		44%	-13%	26%
USA	19,954	19,663	18,964		-1%	-4%	-5%
Romania	-	-	15,570		-	-	-
Germany	13,301	9,940	11,376		-25%	14%	-14%
Korea	5,599	8,603	9,497		54%	10%	70%
Sri Lanka	3,198	8,721	7,449		173%	-15%	133%
Turkey	2,271	2,135	6,765		-6%	217%	198%
Japan	5,971	6,097	5,022		2%	-18%	-16%

Table 8: Panel 1: India's Exports: Top Importing Country Trend - Group 2

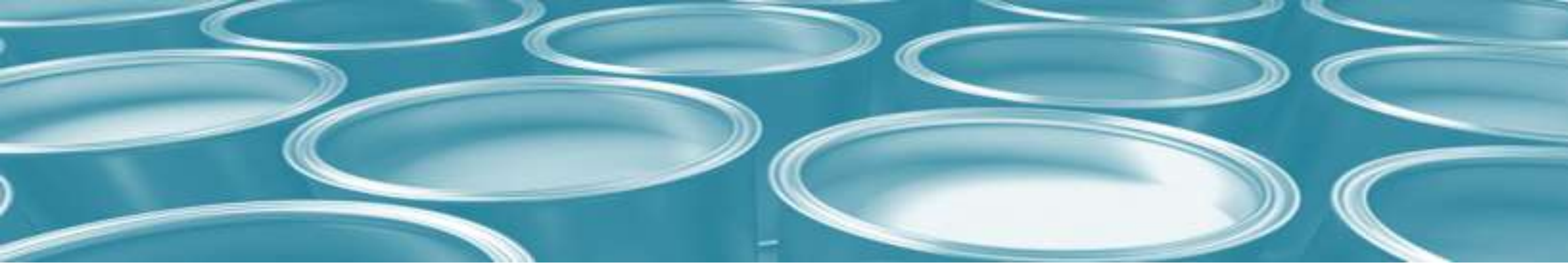
B. Global Imports (Volume Trend Analysis)

In the previous section, the report discussed about the India's export for the panel. This section will highlight the overall global scenario highlighting key product categories and key export markets.

Following product categories are classified under this panel for the analysis of Global Imports.

HS Code	Description
2904	Sulphonated, nitrated or nitrosated derivatives of hydrocarbons, whether or not halogenated
2927	Diazo-, azo- or azoxy- compounds
3202	Synthetic organic tanning substances; inorganic tanning substances; tanning preparations,whether or not containing natural tanning substances; enzymatic preparations for pre-tanning
3203	Colouring matter of vegetable or animal origin (including dyeing extracts but excluding animal black), whether or not chemically defined; preparations as specified in note 3 to this chapter based on colouring matter of vegetable or animal origin
3204	Synthetic organic colouring matter, whether or not chemically defined; preparations as specified in note 3 to this chapter based on synthetic organic colouring matter; synthetic organic products of a kind used as fluorescent brightening agens or as luminophores, whether or not chemically defined. Synthetic organic colouring matter and preparations based thereon as specified in note 3 to this chapter:
3205	Colour lakes; preparations
3207	Prepared pigments, preparated opacifiers and prepared colours, vitrifiable enamels and glazes, engobes (slips), liquid lustres and similar preparations, of a kind used in the ceramic enamelling or glass industry; glass frit and other glass, in the form of powder, granules or flakes

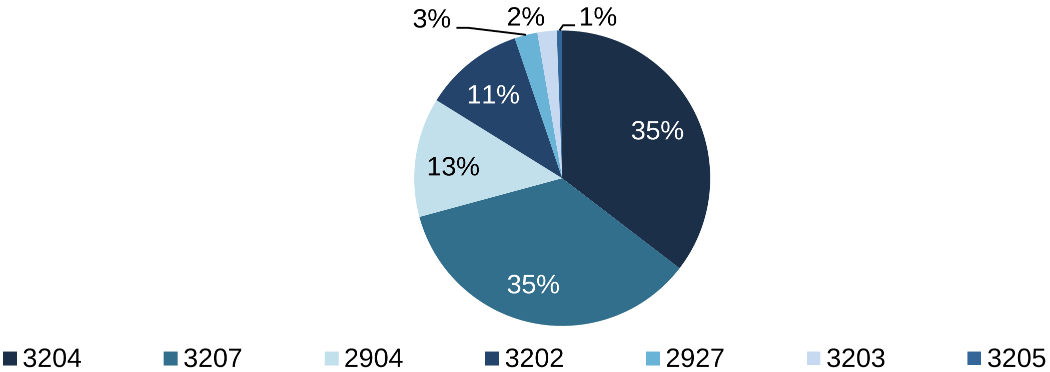
Table 9: Panel 1 - Global Imports: Product Category Descriptions



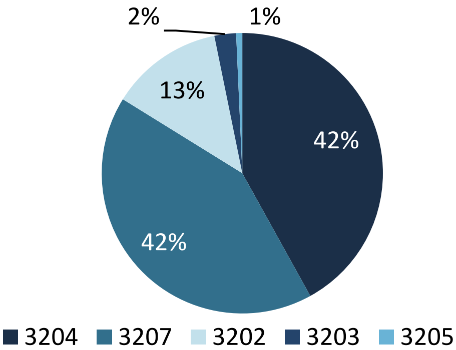
a) *Global Imports: By Product Category*

In 2015, global imports under this panel amounted to 4,465,828 MT registering 5.5% volume decline over 2014.

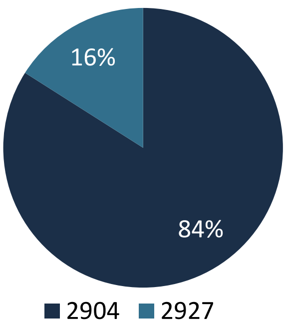
There are 7 major product categories (3204, 3207, 2904, 3202, 2927, 3203 and 3205) that contribute 100% of the global trade in this panel.



Total Volume Exports (Panel 1)
4,465,828 MT



Total Dyes Imports
3,769,993 MT



Total Dye Intermediates Imports
695,835 MT

In Group 1, in 2015, global imports amounted to 3,769,993 MT registering 3.9% volume decline over 2014 with 4 major product categories (3204, 3207, 3202, 3203 and 3205) contributing 84% of the global imports. In Group 2, global imports stood at 695,835 MT in 2015 registering a 13% volume decline over 2014. 2927 alone contributes 84% to the entire global imports.

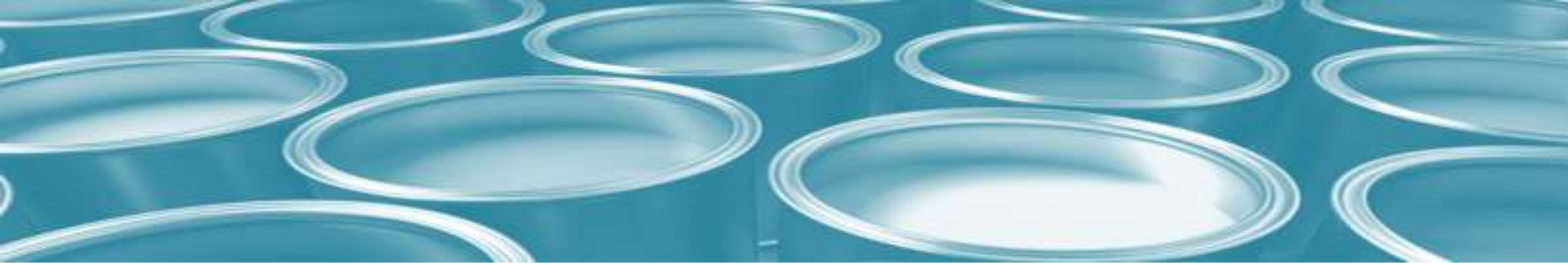
Row Labels	CY 13 Quantity (MT)	CY 14 Quantity (MT)	CY 15 Quantity (MT)	Volume Trend (CY13-15)	CY 13- 14 Growth	CY 14- 15 Growth	CY 13- 15 Growth
3204	1,723,929	1,644,401	1,582,061		-5%	-4%	-8%
3207	1,600,015	1,619,753	1,578,772		1%	-3%	-1%
3202	483,563	536,055	488,897		11%	-9%	1%
3203	110,397	94,518	93,771		-14%	-1%	-15%

Table 10: Panel 1: Global Imports: Top Product Category Trend - Group 1

Row Labels	CY 13 Quantity (MT)	CY 14 Quantity (MT)	CY 15 Quantity (MT)	Volume Trend (CY13-15)	CY 13- 14 Growth	CY 14- 15 Growth	CY 13- 15 Growth
2904	651,323	694,783	584,076		7%	-16%	-10%
2927	100,982	108,401	111,759		7%	3%	11%

Table 11: Panel 1: Global Imports: Top Product Category Trend - Group 2

Under group 1, product categories 3203 and 3204 have seen a decline in last 2 years. In group 2, product category 2904 has seen a slump in export volume by ~1 lakh tonnes over past 2 years.



b) *Global Imports: By Importing Countries*

After looking into the major product categories that are being globally imported, a further analysis is done for countries that import these products in large volumes.

As shown in following figure, 10 countries contribute to more than 42% of global imports under this panel.

Globally, major importers of group 1 are Indonesia, China, Germany and Italy while major importers of group 2 are Belgium and Japan.

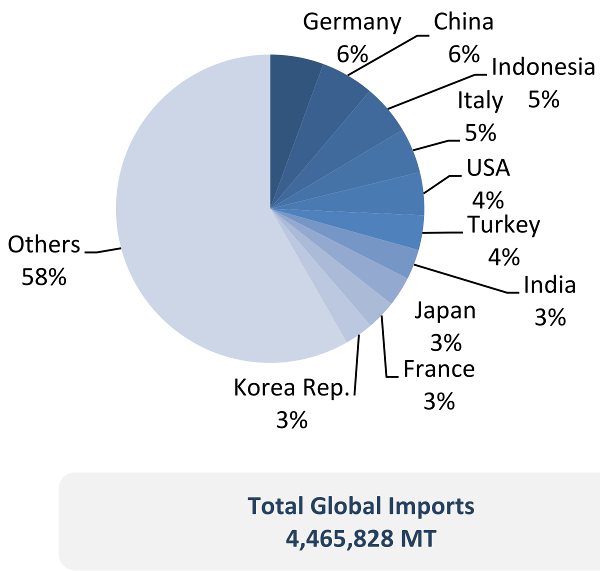
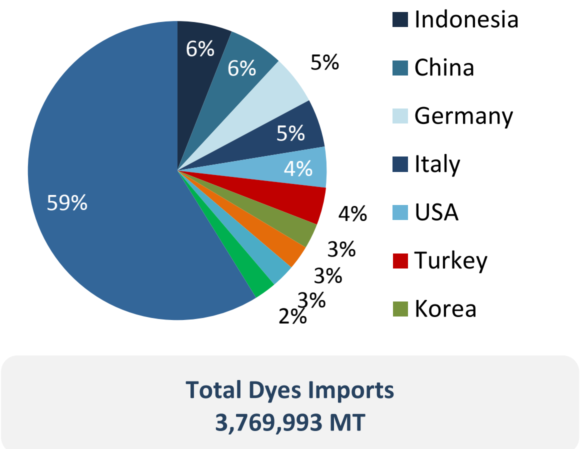


Figure 10: Panel 1: Global Imports: Overall Top Importing Countries (By Volume)



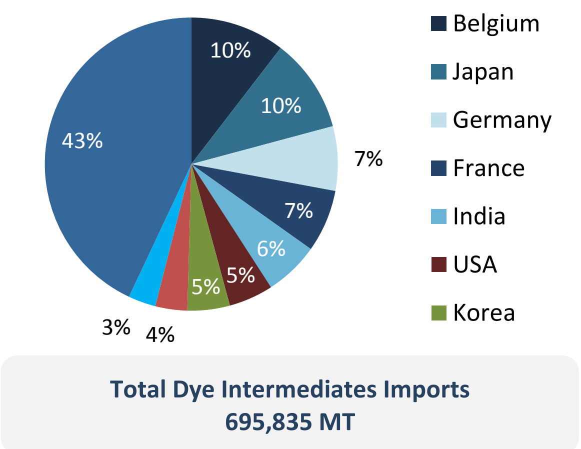
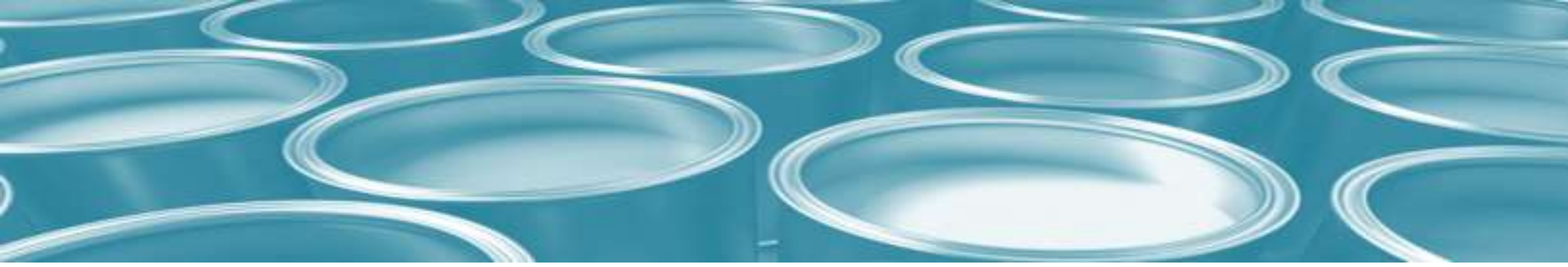


Figure 11: Panel 1: Global Imports: Group Wise Top Importing Countries (By Volume)



Country	CY13 Quantity (MT)	CY14 Quantity (MT)	CY15 Quantity (MT)	Volume Trend (CY13-15)	CY 13-14 Growth	CY 14-15 Growth	CY 13-15 Growth
Indonesia	249,363	257,381	225,217		3%	-12%	-10%
China	227,539	216,815	224,357		-5%	3%	-1%
Germany	206,743	211,654	201,044		2%	-5%	-3%
Italy	176,943	186,705	197,402		6%	6%	12%
USA	160,104	165,687	166,545		3%	1%	4%
Turkey	162,713	155,055	153,085		-5%	-1%	-6%
Korea	103,988	100,774	102,486		-3%	2%	-1%
India	95,921	85,973	99,208		-10%	15%	3%
Pakistan	65,806	80,772	97,415		23%	21%	48%
France	101,903	94,561	90,583		-7%	-4%	-11%

Table 12: Panel 1: Global Imports: Top Importing Country Trend - Group 1

Country	CY13 Quantity (MT)	CY14 Quantity (MT)	CY15 Quantity (MT)	Volume Trend (CY13-15)	CY 13-14 Growth	CY 14-15 Growth	CY 13-15 Growth
Belgium	99,123	69,911	72,677		-29%	4%	-27%
Japan	76,270	75,203	72,258		-1%	-4%	-5%
Germany	50,107	51,472	49,472		3%	-4%	-1%
France	38,407	44,271	47,973		15%	8%	25%
India	30,190	34,260	42,061		13%	23%	39%
USA	29,274	31,121	34,079		6%	10%	16%
Korea	27,437	31,589	32,556		15%	3%	19%
China	28,453	32,936	24,556		16%	-25%	-14%
Malaysia	20,129	23,888	21,103		19%	-12%	5%
Oman	5,544	71,042	18,706		1181%	-74%	237%

Table 13: Panel 1: Global Imports: Top Importing Country Trend - Group 2

As shown in adjoining table, in group 1, Indonesia’s imports have decreased by ~12% in CY15. Pakistan’s imports have shoot up by 48%. In group 2, Belgium’s imports have declined drastically whereas France and India has experienced a considerable increase in import volume.

C. Strategic Insights

a) *Country Prioritization*

In the previous sections, India's export and global imports were analyzed for this panel. The objective of this section is to prioritize top 20 countries/ export markets.

Country prioritization takes into consideration 199 countries across the world. This includes all the major export markets for India as well as top global importers. In order to prioritize top 20 markets for India, following parameters were taken into consideration:

1. Global import share of the country
2. Import Trend
3. Ease of Trading across borders
4. Trade Agreements of India with the country
5. Imports from India
6. TSMG's experience and feedback from CHEMEXCIL members

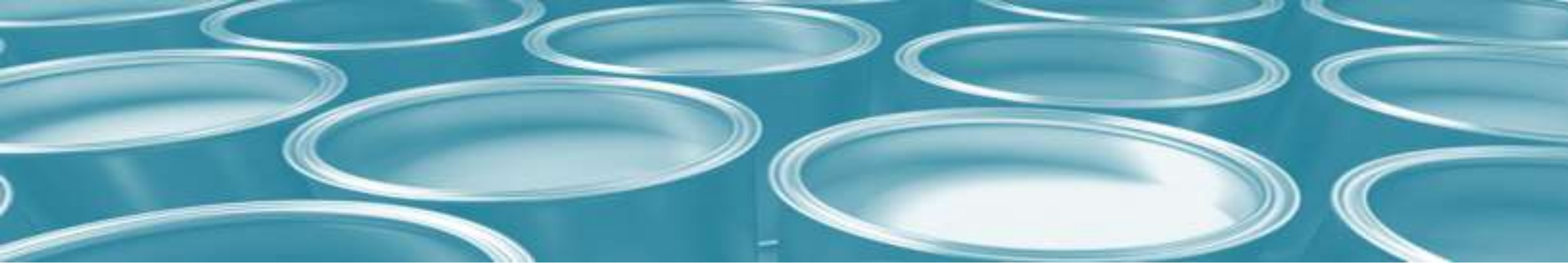
All the countries are scored on a scale of 5 for the first five parameters. The weighted average of 5 parameters is considered to come up with a cumulative score for a country.

1. **Size of the market:** The size (value) of the country imports is compared with the global imports for the panel and its percentage share is calculated to arrive at the relative size of the market.
2. **Market Trend:** Volume growth is considered to calculate the market trend for all countries over 2013 to 2015. Volume growth is considered for the calculation as it is not linked to fluctuations of crude oil prices and hence more accurately demonstrates the import requirement/trend of the country.
3. **Ease of Trading across borders:** Ease of trading score is calculated across four parameters mentioned below

Import			
Time		Cost	
Documentary compliance (hours)	Border compliance (hours)	Documentary compliance (US$)	Border compliance (US$)

Table 14: Parameters evaluated for Ease of trading across border

World bank's "Ease of doing business" report has a section on 'Ease of trading across borders which measures the time and cost (excluding tariffs) associated with three sets of procedures—documentary compliance, border compliance and domestic transport—within the overall process of exporting or importing a shipment of goods across borders.



4. **Trade Agreements of India with the country:** PTA, FTA, CEPA, CECA[2] etc. have considerable bearing on the trade between two countries and gives competitive edge to the exporting country over other countries and hence is one of the key factors considered in the prioritization.
5. **India's exports to the country:** For a 360 degree evaluation, we have considered India's export to the country as fifth parameter to account for the current trade relations with the country irrespective of the share of that country in global imports

Each country was rated on above 5 parameters and cumulative score was calculated. Countries were then ranked on the basis of this score to arrive at top 20 countries to be considered for export of this panel. TSMG Experience and Feedback for CHEMEXCIL member's was also incorporated in the prioritization process.
Based on the methodology, top 20 countries which India should consider for export of this panel are shown in table 15:

High	Medium	Low

Sr. No.	Country	Import Share	Import Trend	Ease of Trading	Trade Agreements	Imports from India	Score
1	Germany	High	Low	High	Medium	High	4.4
2	China	High	Low	Low	High	High	4.2
3	USA	High	Medium	Medium	Low	High	4.2
4	Italy	Medium	High	High	Medium	High	3.8
5	Rep. of Korea	Medium	Medium	Low	High	High	3.4
6	Japan	Medium	Low	Medium	High	High	3.4
7	Thailand	Medium	Low	Medium	High	High	3.4
8	Netherlands	Medium	Low	High	Medium	High	3.4
9	Vietnam	Medium	High	Medium	High	Medium	3.4
10	Turkey	Medium	Low	Medium	Medium	High	3.2
11	Indonesia	Medium	Low	Low	High	High	3.2
12	United Kingdom	Medium	Medium	High	Medium	Medium	3.2
13	Belgium	Medium	Low	High	Medium	Medium	3.0
14	Spain	Medium	Low	High	Medium	Medium	3.0
15	Mexico	Medium	High	Medium	Low	Medium	3.0
16	Brazil	Medium	Low	Low	Medium	High	3.0
17	France	Medium	Low	High	Medium	Low	2.6
18	Singapore	Low	High	Medium	High	Medium	2.4
19	Pakistan	Low	High	Low	High	Medium	2.2
20	Bangladesh						

Table 15: Country Prioritization Summary

[2] PTA: Preferential Trade Agreement, FTA: Free Trade Agreement, CEPA: Comprehensive Economic Partnership Agreement, CECA: Comprehensive Economic Cooperation Agreement

- Germany emerges as the most attractive country for export of Panel 1 product. Germany scores highly on the volume of imports of Panel 1 products, Ease of trading across its borders as well as total imports from India. Time and cost associated with documentary / border compliances are amongst the lowest in the world and thus Germany stands as the most attractive country from the perspective of exporting dyes, despite a relatively muted growth rate in recent times. However, there are issues with regard to REACH compliance which are touched upon in the section on Recommendations.
- Out of these 20 countries, India current has trade agreements in effect with China, Korea, Japan, Thailand, Vietnam, Indonesia, Singapore and Pakistan whereas no trade agreements with USA and Mexico are in place.
- Singapore and Pakistan have a relatively smaller market size but their imports have increased strongly in the last 2 years. On account of increasing trend, they bag spots in the top 20.
- India has considerable export share (>15% of country's import) in Turkey, Brazil, Thailand, Singapore and Pakistan.
- India is yet to establish a strong presence in France.

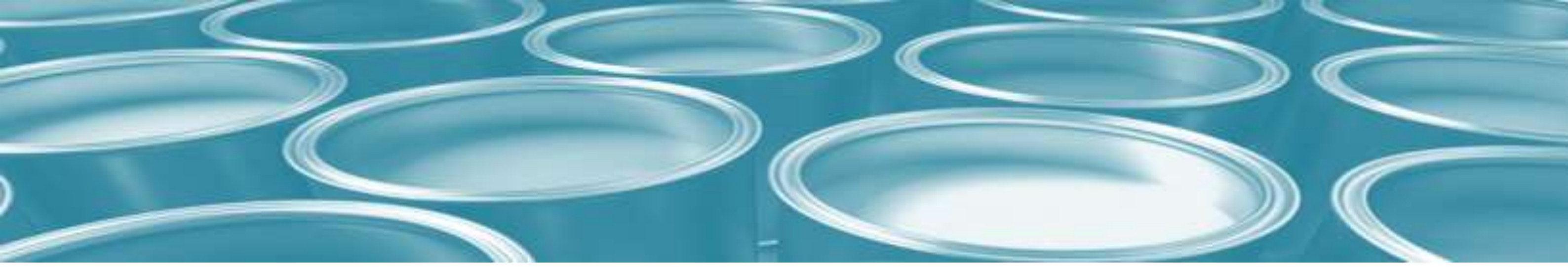
b) *India's competitive position as an exporter*

For each of the top 20 prioritized countries for Panel 1, the following table details information on top 5 exporters along with their share to that country. This table has been constructed taking into consideration the top 4 products from Panel 1 which account for 95% of the global import share by value.

It can be clearly noticed that there are many country-product category combinations where India is not in top 5 and offers significant export opportunity.

1. Germany		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	975	China	22.0%	India	13.9%	Switzerland	10.5%	USA	10.4%	France	6.6%
3207	213	Japan	23.5%	Spain	14.8%	USA	12.7%	France	9.5%	UK	6.6%
3203	91	Netherlands	19.6%	China	12.5%	USA	9.6%	Denmark	9.3%	Peru	7.8%
2904	70	USA	24.6%	China	16.2%	Czechia	12.6%	France	11.2%	Belgium	8.8%
2. China		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	723	Japan	17.0%	Rep of Korea	13.1%	India	13.1%	Other Asia*	12.0%	Germany	9.6%
3207	199	Spain	35.0%	USA	12.5%	Japan	11.7%	Germany	7.1%	Rep of Korea	6.9%
3203	36	India	48.6%	Denmark	9.9%	Australia	7.9%	Japan	5.5%	USA	5.1%
2904	42	Germany	32.3%	Japan	14.0%	India	13.1%	France	10.0%	USA	8.5%
3.USA		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	992	China	25.6%	India	22.3%	Germany	15.4%	Switzerland	5.9%	Japan	5.0%
3207	130	Mexico	21.2%	Germany	13.1%	Switzerland	8.7%	Netherlands	8.7%	Japan	7.2%
3203	152	Netherlands	28.5%	India	14.1%	China	9.3%	Israel	7.3%	Peru	5.0%
2904	72	China	24.7%	Poland	15.7%	France	15.1%	Germany	10.5%	India	8.8%
4. Italy		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	492	Germany	27.0%	India	19.2%	China	12.8%	Belgium	12.2%	Spain	7.0%
3207	146	Spain	63.2%	Germany	9.5%	China	7.3%	Belgium	4.0%	Turkey	3.4%
3203	43	Spain	17.2%	China	14.1%	France	12.4%	Germany	10.7%	Netherlands	10.3%
2904	18	Germany	18.2%	USA	17.8%	China	12.2%	Belgium	11.3%	India	10.8%
5. Rep of Korea		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	792	China	32.3%	Japan	28.4%	USA	14.7%	India	9.3%	Germany	9.2%
3207	142	Japan	40.4%	USA	14.9%	Netherlands	10.9%	Singapore	9.8%	Germany	6.3%
3203	16	China	45.4%	Peru	8.3%	Japan	8.1%	France	5.0%	Mexico	5.0%
2904	34	China	43.0%	USA	17.7%	Germany	14.6%	Other Asia*	8.5%	Japan	7.0%
6. Japan		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	487	China	32.0%	Germany	15.3%	India	12.4%	France	9.0%	Switzerland	6.5%
3207	108	China	24.3%	Singapore	20.6%	Other Asia*	19.6%	USA	14.0%	Germany	13.8%

3203	133	China	32.0%	Spain	19.8%	India	9.3%	USA	7.8%	Israel	6.7%
2904	97	China	45.5%	Rep of Korea	35.6%	India	5.8%	Germany	5.4%	USA	3.8%
7. Thailand		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	324	China	39.2%	India	24.3%	Germany	5.9%	Other Asia*	5.7%	Japan	5.3%
3207	61	China	27.4%	Japan	20.0%	Spain	16.3%	Other Asia*	11.0%	Germany	5.6%
3203	11	Japan	17.6%	Denmark	15.0%	Malaysia	14.2%	Rep of Korea	11.4%	USA	8.5%
2904	6	Japan	21.5%	Germany	15.6%	India	13.5%	China	13.2%	Other Asia*	12.6%
8. Netherlands		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	278	Germany	28.4%	China	27.3%	India	12.6%	Belgium	9.1%	USA	4.4%
3207	30	Germany	42.1%	Belgium	16.2%	USA	12.4%	France	6.9%	Italy	4.0%
3203	53	Germany	61.8%	Turkey	6.8%	Austria	5.8%	Spain	3.3%	India	3.2%
2904	14	Germany	23.6%	China	20.6%	USA	11.7%	Italy	9.6%	Belgium	7.5%
9. Viet Nam		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	304	China	40.6%	Other Asia*	18.1%	Rep of Korea	14.1%	India	8.9%	Thailand	3.0%
3207	90	China	58.8%	Spain	19.8%	Thailand	7.8%	Other Asia*	3.4%	India	2.6%
3203	19	China	41.8%	Singapore	16.0%	Denmark	12.4%	Belgium	8.7%	India	4.2%
2904	2	China	50.2%	USA	11.8%	Belgium	8.4%	Thailand	8.1%	Other Asia*	8.0%
10. Turkey		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	549	India	30.6%	China	28.4%	Germany	8.1%	Other Asia*	4.4%	Rep of Korea	4.3%
3207	94	Spain	39.9%	Italy	17.2%	Netherlands	12.4%	Germany	12.1%	China	6.9%
3203	11	Germany	25.9%	China	9.9%	Italy	9.8%	Spain	8.8%	Peru	8.5%
2904	7	India	33.5%	Italy	14.8%	Germany	13.1%	China	8.2%	Czechia	6.6%
11. Indonesia		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	432	China	52.8%	India	18.1%	Rep of Korea	5.0%	Other Asia*	4.8%	Japan	4.5%
3207	100	China	53.5%	Spain	17.2%	Italy	6.3%	Japan	4.3%	Other Asia*	4.0%
3203	4	Japan	26.1%	Denmark	19.2%	China	16.0%	UK	9.9%	Switzerland	8.7%
2904	9	China	30.9%	Spain	20.1%	India	19.6%	Japan	8.9%	Other Asia*	6.4%
12. United Kingdom		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	294	Germany	27.9%	China	17.2%	India	16.8%	Belgium	8.7%	Netherlands	6.2%
3207	99	USA	54.3%	Spain	17.9%	Germany	12.3%	Japan	3.4%	Belgium	3.2%
3203	75	Ireland	20.2%	Netherlands	14.0%	China	13.4%	Germany	9.3%	France	8.5%
2904	21	Germany	17.3%	China	16.6%	USA	15.8%	Belgium	15.2%	Italy	10.6%
13. Belgium		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	325	Germany	21.9%	China	21.4%	USA	12.9%	Netherlands	9.6%	India	7.8%
3207	31	Germany	24.7%	Netherlands	17.8%	Austria	14.5%	UK	10.8%	Japan	8.3%
3203	20	Germany	18.0%	Netherlands	17.4%	Other Asia*	15.7%	France	10.9%	China	8.7%
2904	74	Germany	47.3%	Portugal	25.5%	India	12.6%	France	3.3%	China	2.6%



Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
14. Spain		**Top Exporting Countries**									
3204	258	Germany	25.0%	India	19.8%	China	13.6%	Belgium	8.3%	Italy	6.4%
3207	60	Italy	32.9%	Germany	26.2%	China	13.9%	France	5.7%	Netherlands	4.9%
3203	78	China	38.7%	Ireland	14.3%	India	7.8%	Peru	7.5%	Germany	6.7%
2904	25	USA	28.4%	India	26.7%	Italy	12.2%	Belgium	6.4%	UK	5.5%
15. Mexico		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	382	China	31.6%	USA	21.7%	India	15.8%	Germany	6.8%	Switzerland	4.4%
3207	75	USA	64.6%	Spain	14.5%	Italy	5.7%	China	3.2%	Rep of Korea	3.1%
3203	83	China	81.6%	Peru	5.3%	India	3.5%	Denmark	2.4%	USA	1.6%
2904	22	USA	76.1%	China	12.3%	India	4.3%	Belgium	2.8%	France	1.0%
16. Brazil		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	324	India	30.4%	China	27.5%	Germany	6.9%	USA	6.8%	Hong Kong	3.8%
3207	55	Spain	50.9%	USA	13.2%	Italy	7.6%	Argentina	7.3%	Paraguay	3.9%
3203	11	Peru	43.4%	France	9.0%	Netherlands	8.7%	USA	8.7%	India	8.3%
2904	40	France	41.2%	China	18.7%	USA	10.4%	Spain	9.2%	India	8.2%
17. France		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	368	Germany	24.1%	USA	13.3%	Belgium	12.0%	Switzerland	7.9%	China	7.2%
3207	76	Spain	25.2%	Germany	24.0%	Netherlands	15.8%	Belgium	11.0%	Italy	11.0%
3203	63	USA	29.1%	Denmark	8.7%	Spain	8.4%	UK	7.9%	Germany	7.3%
2904	66	UK	57.5%	Germany	11.1%	Belgium	9.1%	Netherlands	5.0%	Italy	3.5%
18. Singapore		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	243	China	25.8%	India	22.9%	Germany	13.3%	Japan	11.1%	Indonesia	6.7%
3207	15	USA	23.1%	Germany	18.9%	Spain	13.6%	Other Asia*	11.4%	Japan	11.0%
3203	10	Australia	52.5%	Japan	13.8%	Philippines	4.9%	Denmark	4.3%	India	4.0%
2904	8	Germany	35.8%	China	22.0%	France	12.8%	USA	12.6%	Viet Nam	6.7%
19. Pakistan		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3204	225	India	36.3%	China	30.6%	Rep of Korea	10.0%	Germany	9.2%	Other Asia*	2.9%
3207	10	China	54.4%	Spain	35.9%	Mexico	3.1%	Other Europe	2.4%	Germany	2.0%
3203	1	Denmark	35.5%	Singapore	31.9%	Switzerland	9.1%	France	8.3%	Spain	4.6%
2904	1	France	41.5%	China	20.5%	India	15.5%	Austria	5.6%	Germany	5.1%
20. Bangladesh		**Note: Data not available**									

Table 16: Competition Analysis for Prioritized Countries

Note: * indicates nes i.e. area not elsewhere specified

Key Highlights:

- India is currently the second largest exporter to Italy after Germany for organic coloring matter (3204). Germany, given its inherent capability of exporting large quantities of Panel 1 products along with its proximity and strong trade relations with Italy, is the largest exporter of Panel 1 products. Nonetheless, there is scope for India to maintain its position as an exporter to Italy.
- Further, India features as the third largest exporter to Mexico for 3 of the 4 products, despite the large distance between the two countries and no specific trade agreement in action. On the other hand, despite high exports to EU countries like Germany, India does not feature in the top 5 exporters to France for any of the 4 product categories shown in the table.
- As an exporter of synthetic organic coloring matter (3204), India features among the top 5 for Germany, UK and Korea, whereas for other key product categories (3207, 3203, 2904), India's export to these countries is minimal and offers good export opportunities.

c) *Country Attractiveness – Panel 1*

Top 20 countries prioritized above have been segregated into 4 categories on the basis of

a. Country's Share in Global Imports

b. India's Exports Share to that Country

Threshold of 3% assumed for a country's total imports to the total imports for all countries.

India's export to the respective country has been adjudged as High/Low if it is greater/lower than 2.5 times the country's import share of the total world import.

This categorization of countries is thus based on a dependent parameter where India's export share as High/Low is dependent on the total imports for each country.

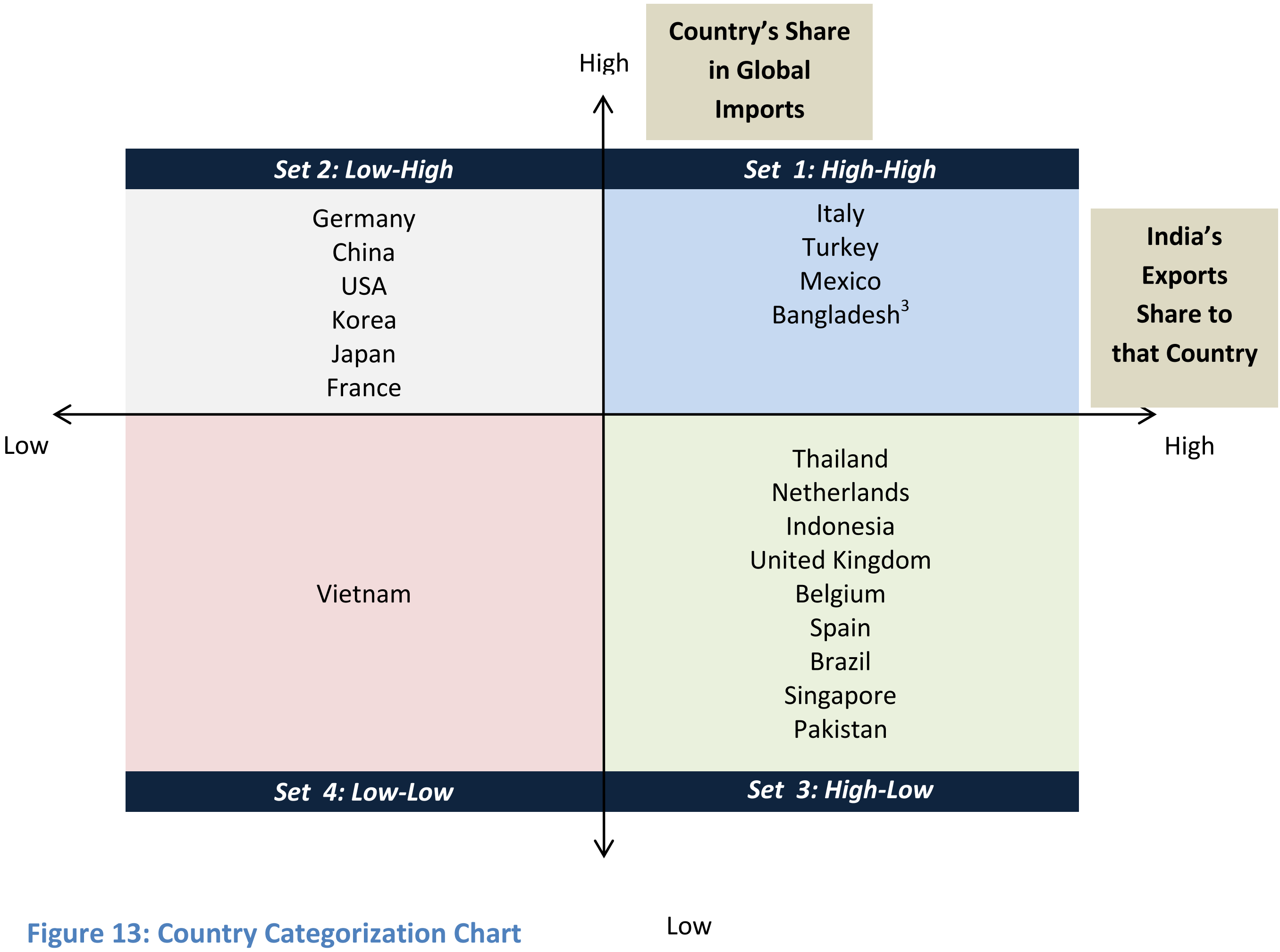


Figure 13: Country Categorization Chart

[3] Import data for Bangladesh from UN Comtrade is not tracked. But given India's high exports to Bangladesh and a large dye market in Bangladesh, it has been placed in Category 1.

Set 1: High-High

As per our analysis, Italy emerges as the top nation in this category. It has a rank of 4 in our Country Prioritization List and stands as the sixth largest importer of Panel 1 products. Turkey, Mexico and Bangladesh are the other countries that fall in this category with high import share along with reasonably high import volumes from India. The key takeaway from this list would allude to the fact that Indian exporters have been relatively successful in making inroads into these countries but stand with an opportunity of further penetration, given the large size of the market in the respective countries.

Set 2: Low-High

Germany is the top ranked country in this category of countries with high share of global imports of panel 1 products along with China, USA, Korea, Japan and France. Focus on this category would imply tapping into export opportunities prevalent in these markets which are currently under-penetrated by India. USA, Germany and China are the largest importers of Panel 1 products and with India having a reasonably low share of exports to these, there stands a huge opportunity for exporting Panel 1 products here.

Set 3: High-Low

Thailand is the top ranked country in this category of countries with a reasonably low share of global imports of panel 1 products, with the Netherlands, Indonesia, UK, Belgium, Spain, Brazil, Singapore and Pakistan being the other countries in this category. Based on this analysis, India has a good presence in these countries and with a relatively low share of global imports of Panel 1 products, Indian exporters can look to diversify their product exports into these countries, given the stronghold already established in Panel 1 products.

Set 4: Low-Low

Amongst the top 20 countries, only Vietnam finds a place in this category of countries with relatively low import share of Panel 1 products along with India's low contribution to the country's overall imports.

D. Key Recommendations

The Indian Dyestuff Industry is an old industry and produces every type of dyes and pigments. India has the technical ability to produce internationally competitive products but faces the following challenges:

1. Heavy dependence on imported raw materials - raw-material account for nearly 50% of the manufacturing cost of dyes. Since 90% of the raw material such as H-acid, vinyl sulphone, and gamma acid are Crude derivatives, China has an advantage over India on the cost of these basic raw materials. Other raw materials such as Resorcinol which is imported mainly from Japan – has reduced considerably over the years

2. High fragmentation - The market is highly fragmented around 900 players in the unorganized sector. The small-scale sector occupies around 40% of the market, where as the organized players' command the market share of 60%. High fragmentation is a major reason for cost disadvantage in India compared to China. There are many unorganized players present with small capacities that compete with each other leading to internal competition, fall down of margins and sub-scale output. Going forward, consolidation must be considered which will help build scale and improve competitiveness.

3. Environmental Concerns - Dyestuffs are regarded as one of the high polluting industries. Hence, environmentalists suggest that the industry should take initiatives for environmental protection.

<u>Recommendations for member organizations:</u>

In order to cater to swiftly changing requirements the world over and to further strengthen its global position in dyes and dye intermediates, the Indian exporters should focus on the following aspects:

1. Focus on reactive and disperse dyes since the demand of these is expected to grow in future and these are dominant in all the regions. The demand for disperse vat and other dyes are stagnant and hence those should not be the key focus
2. Make efforts on building scale. In order to take lead in the global market, scale is a must in these product categories. Small units that exist today still compete in the segments where price realization is lower and the competition severe
3. Leverage on strong technical capabilities and focus on production of high performance pigments
4. Several global dyes and dye intermediates companies have expanded their presence in Asian countries including India and they cater to their global requirements from here. Thus, Indian manufacturers need to explore possibilities of contract manufacturing alliances with global companies

5. Very small players should evaluate either existing the business or make acquisitions so that advanced technology can be leveraged, product portfolio is rationalized and higher demands of environmental compliances are met. Competing profitably in the future independently for small manufacturers will be a challenge
6. Companies with reasonable scale need to focus on brand building and ensuring greater customer focus through technical services and marketing capabilities, in order to face global competition. They also need to evaluate co-marketing alliances and continually upgrade their manufacturing facility to continue to grow their exports
7. The industry is likely to see many new dyeing technologies coming into the market with the help of good technical expertise and R&D achievements and Indian companies who wish to enhance their exports, should critically evaluate such technologies in order to stay ahead
8. Manufacturers could focus on vinyl sulphone exports, especially to China, since China is facing a shortfall of this intermediate, following the closure of the plants there
9. Indian manufacturers of Phthalic Anhydride could focus on Turkey and Bangladesh going ahead in addition to the already strong presence in Middle East. USA and China may not be the most attractive destinations due to large domestic capacities and anti-dumping duties respectively
10. Environmental concerns with regard to tanneries have been mounting in the western part of the world due to which direct sourcing of final products is being considered from Asia Pacific. To tackle this, PU based leather is expected to witness high growth globally since it is considered to be more environmentally friendly as compared to vinyl based leather, but is more expensive. Indian exporters could leverage upon their relations with importers in countries like UK and Netherlands and increase sales of tanning products in these countries

Recommendations for the Government:

Support from the Government is also essential for Indian manufacturers to successfully compete in the international market to boost Indian exports and turn “Make in India” a success in this segment of the industry. There are several bottlenecks which hamper the exports. To strengthen the exports from the country in this panel, following are some suggestions:

1. India has FTA with ASEAN nations, but the concessions are only limited. Whereas supplies from China to these ASEAN nations is against NIL duty which impacts competitiveness. For example, the items under export attract concessional tariff of up to 4% under AIFTA, but the same item when exported by Chinese supplier to Indonesia is allowed at Zero duty. There is a need to re-negotiate terms of this FTA with ASEAN countries to match to the conditions for Chinese exporters to stay competitive
2. Cost of finance in India is much higher as compared to competing countries which impacts our competitiveness. Interest equalisation scheme for only 10 tariff lines for

Non-MSME's in Chemical Sector and Merchant Exporters are excluded. There is a need to reduce the cost of finance for Non-MSME manufacturers by expanding the tariff lines in the interest equalization scheme

3. GST Council has proposed measures for exports, but these measures need to be implemented fast and refunds need to be processed quickly for smooth cash flows. Most MSMEs export through the merchant exporters and account for ~40% of India's exports. It has a cascading effect down the line if merchant exporters are not competitive. There is a need for faster refunds in GST to ensure adequate liquidity with the manufacturers and exporters to remain competitive in the market
4. Post-GST, the utility of Merchandise Exports from India Scheme (MEIS) has been reduced as it can be used only for Basic Custom Duty (BCD). It cannot be used for paying IGST. There is a need to re-align the incentives under GST, so that manufacturer and merchant exporters fund flows are not impacted.
5. Natural Gas is not covered in GST and is subjected to VAT. Since, end-product is chargeable to GST and natural gas gets charged under VAT, input credit is not available against the GST liability on the related end-product. As a long-term resolution, there is a need to include natural gas under GST or reduce the VAT charged on Natural gas to reduce the tax burden on manufacturers
6. Availability of power and fuel is quite inadequate & erratic and the cost is very high. Besides, the electricity duty incurred on power is non-refundable which adds up to the cost. So, input taxes on electricity should be made refundable. Further, there is a need to ensure steady availability of fuel and electricity to the manufacturers
7. MOECF issued a notification concerning change in product mix etc. Product change is possible, provided all CETPs comply with the discharge norms and get approval from the state's technical committee. Other issues like closure of units, installation of online monitoring system, waste disposal, etc. are already highlighted to the Ministry & awaits resolution. Installation & up-gradation of CETPs to latest environmental standards will enable the manufacturers to improve their product portfolio and undertake development of more value-added products
8. OFAC sanctions are a major hindrance to exports and restricts Indian exporters from dealing with these countries despite some of these countries being in the MEIS list. There is a need for some arrangement with banks to transact in INR with these countries, like the Iran Rupee Payment mechanism, which will be a continuation of business. Due to negligence of banks, in many cases, exporters/SBs are getting caution listed even after receiving payments and export shipments are hindered. RBI gives temporary extensions, but there is a need for a permanent solution

In addition to above, to further strengthen the exports we recommend the following:

- **Set 1 (Large markets with strong Indian presence)**
  Italy, Turkey, Mexico and Bangladesh
  - ✓ Member organizations should aim to open local offices in these countries in order to be closer to customers and provide required technical services
  - ✓ Engage with customers on a regular basis on product development to understand trends and changing product requirements
- **Set 2 (Large markets with weak Indian presence)**
  Germany, China, USA, Korea, Japan and France
  - ✓ China, with their government mandates of gradually shutting down select factories, is expected to lose some steam in their exports to these countries in the near term. These countries are part of either Category 1 or Category 2 and hence despite issues such as REACH compliance in Europe, Indian exporters stand in good stead in exporting Panel 1 products by gradually taking over the share that China has gained over the years
  - ✓ These countries are currently underpenetrated by India but offer large export opportunity. Members should thus actively participate through CHEMEXCIL initiatives in these countries and establish their identity, build relevant industry contacts and focus their marketing and sales efforts
  - ✓ Engage with customers on frequent basis on product developments, develop relationships through frequent visits
  - ✓ New market development team can be formed to focus on these markets
  - ✓ Engage with consultants / research experts to assess market capabilities in each of these countries and prepare strategies to penetrate these markets
- **Set 3 (Smaller markets with weak Indian presence)**
  Thailand, Netherlands, Indonesia, UK, Belgium, Spain, Brazil, Singapore & Pakistan
  - ✓ Sustain export share of existing products and invest in R&D domestically for product development to cater to fast changing requirements in these countries, thereby expanding the product portfolio in these countries
  - ✓ Identify opportunities to cross-sell allied products in these counties
- **Set 4 (Smaller markets with strong Indian presence)**
  Vietnam
  - ✓ These being smaller markets, focus on operating through distributors
  - ✓ Engage with CHEMEXCIL to identify and tap high growth markets in this cluster

Recommendations for CHEMEXCIL:

In order to promote export of products, CHEMEXCIL could focus on following aspects:

- **Overall:**
  - ✓ In the next two years, focus could be on Set 2 to further strengthen the exports in large markets with low Indian presence
  - ✓ Continue to maintain the strong position in Set 1 markets.
  - ✓ Establish contacts with the prospective buyers to generate their interest in the Indian chemical products
  - ✓ Sponsor trade delegation, study teams and sales teams to various market abroad
  - ✓ Organize Workshops/Seminars on various trade and policy related issues
  - ✓ Disseminate trade information and intelligence to the member exporters on a quarterly basis
  - ✓ Liaise with the Government of India on all procedural and policy matters relevant to the chemical export trade
  - ✓ Liaise with import promotion and commercial agencies abroad for the benefit of chemical exporters
  - ✓ Technical barriers to trade (TBTs) are increasing day by day. China has come up with China NCSN (New Chemical Substance Notification) which is similar to EU REACH. To comply with these TBTs, provide member organizations an able platform to voice concerns related to compliance with EU REACH/ China NCSN registrations and ensure that their issues are addressed.
  - ✓ Facilitate short term training courses on International Marketing
  - ✓ Relook at export strategy every two years to factor in changing global scenario
- **Set 1: (Larger Market – Higher Export Share of India)**
  (For the list of countries, refer to the Individual panel analysis)
  - ✓ Closely monitor product import trends in these countries and ensure that India is not slipping away from its dominant position
  - ✓ Share these findings with member organizations
  - ✓ Build a repository of requirements to set up offices in these countries. These can be shared with member organizations as per their need. This will facilitate faster entry into these countries by member organizations.
  - ✓ Ensure the presence of India pavilion in all relevant industry exhibitions such as that of cosmetics, agrochemicals, natural products, coatings and dyes and colorants.
- **Set 2: (Larger Market – Lower Export Share of India)**
  (For the list of countries, refer to the Individual panel analysis)

- ✓ Associate with export promotion council (EPC) of respective countries to share information about local manufacturers. This needs to be the key focus area for CHEMEXCIL for next few years
- ✓ Bring in delegations from these countries to inform them about domestic manufacturing, product portfolio, compliance adherences etc.
- ✓ Prepare a panel-wise list of prospective customers in the countries belonging to this cluster
- ✓ Arrange trade shows, road shows with member organizations for the promotion of Indian products
- ✓ Arrange 'Reverse Buyer-Seller meets' in India itself for importers to get a glimpse of product portfolio and manufacturing operations in India
- ✓ Participate in events such as European Organic Chemistry Congress in the EU countries to showcase Indian product offerings

➢ **Set 3: (Smaller Market – Higher Export Share of India)**

(For the list of countries, refer to the Individual panel analysis)

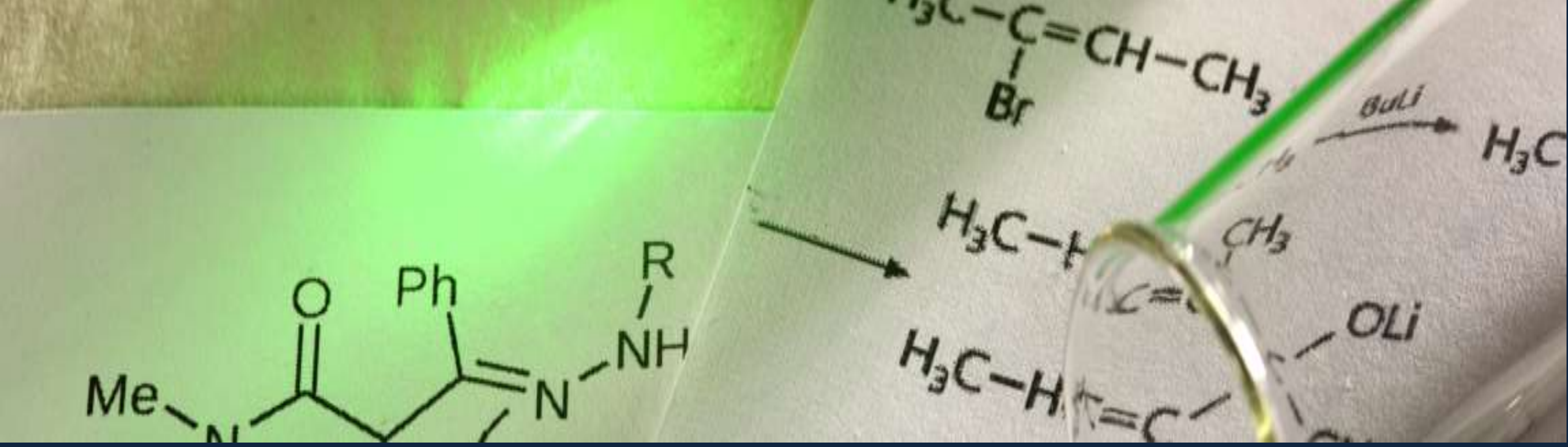
- ✓ With a stronghold established in the countries falling under this cluster, participate for trade fairs / arrange reverse buyer seller meets to display a large product portfolio especially newer products which can be sold to the existing customers and thus further penetrate these markets through cross-selling
- ✓ Engage with EPC's of respective countries falling in this cluster to identify their local manufacturers, their feedstock requirement and analyse the same to understand product diversification opportunities
- ✓ To increase the penetration in these countries through effort-light means, adopt digital promotion/ e-engagement techniques like webinars etc. to interact with counterparts
- ✓ Liaison with government, take pre-emptive measures in cases where govt. regulations/ policies/ trade decisions have an impact on India's export to these cluster countries

➢ **Set 4: (Smaller Market – Lower Export Share of India)**

(For the list of countries, refer to the Individual panel analysis)

- ✓ Identify country clusters where multiple countries can be tapped through negotiations with trade organizations
- ✓ To tap relatively smaller market in this cluster, adopt effort-light promotional model which will include creating and sharing product related videos, arranging webinars for real-time interactions with EPCs and prospective customers in respective countries.
- ✓ Bring in delegations from these countries to inform them about domestic manufacturing, product portfolio, compliance adherences etc.

- ✓ Track panel-wise market growth in these countries, to identify markets which could grow rapidly in next few years



Panel 2

Organic, Inorganic & Agro Chemicals

VI. Panel 2 - Analysis

A. India Exports (Volume Trend Analysis) - Panel 2

Following product categories are classified under this panel for the analysis of India's export:

HS Code	Description
1108	Starches; inulin
2803	Carbon (carbon blacks and other forms of carbon not elsewhere specified or included)
2806	Hydrogen chloride (hydrochloric acid); chlorosulphuric acid
2807	Sulphuric acid; oleum
2815	Sodium hydroxide (caustic soda); potassium hydroxide (caustic potash); peroxides of sodium or potassium
2827	Chlorides, chloride oxides and chloride hydroxides; bromides and bromide oxides; iodides and iodide oxides
2832	Sulphites; thiosulphates
2833	Sulphates; alums; peroxosulphates (persulphates)
2836	Carbonates; peroxocarbonates (percarbonates); commercial ammonium carbonate containing ammonium carbamate
2839	Silicates; commercial alkali metal silicates
2901	Acyclic hydrocarbons
2902	Cyclic hydrocarbons
2905	Acyclic alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives
2909	Ethers, ether-alcohols, ether-phenols, ether-alcohol-phenols, alcohol peroxides, ether peroxides, ketone peroxides (whether or not chemically defined), and their halogenated, sulphonated, nitrated or nitrosated derivatives
2915	Saturated acyclic monocarboxylic acids and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives
2917	Polycarboxylic acids, their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives
3802	Activated carbon; activated natural mineral products; animal black, including spent animal black
3808	Insecticides, rodenticides, fungicides, herbicides, anti-sprouting products and plant-growth regulators, disinfectants and similar products, put up in forms or packings for retail sale or as preparations or articles (for example, sulphur-treated bands, wicks and candles, and fly-papers)

Table 17: Panel 2 - India's Exports: Product Category Descriptions

a) *India Exports: By Product Category*

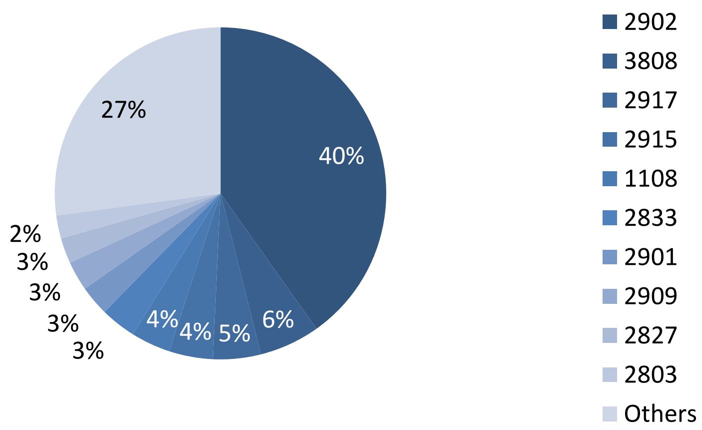
This panel consists of three groups (Organic Chemicals, Inorganic Chemicals and Agro Chemicals) with total 106 product categories. Group 1 – Organic Chemicals include 54 product categories, Group 2 – Inorganic Chemicals include 50 product categories and Group 3 – Agrochemicals include 3 product categories. In Group 1, 7 product categories (2902, 2917, 2915, 1108, 2901, 2909 and 2905) contribute 83% (By volume), while in Group 2, 10 product categories (2833, 2827, 2803, 2806, 2815, 2836, 2832, 3802, 2807 and 2839) form 75% and in Group 3, 1 product category (3808) forms nearly 100%. The table below provides the contributions from key products and major export market for India.

Sr. No.	Product Category	Key Products	% volume share in product category export	Key Export markets for India
		Organic		
1.	2902	Benzene	44%	Saudi Arabia, Indonesia, China, Singapore, Malaysia & USA
		P-Xylene	42%	
		O-Xylene	11%	
2.	2917	Terephthalic Acid	71%	UAE, Turkey, Malaysia, Oman & USA
		Aromatic Polycarboxylic Acids	6%	
		Oxalic Acid	6%	
3.	2915	Ethyl Acetate	47%	Belgium, Netherlands, Italy, USA & UAE
		Acetic Acid Esters	12%	
		Acetic Anhydride	8%	
		Sat. Acyclic Monocarboxylic Acid	8%	
4.	1108	Starch Of Maize (Corn)	97%	Indonesia, Malaysia & UAE
5.	2901	Buta-1, 3-diene and Isoprene	86%	Korea, Indonesia, China & Malaysia
6.	2909	Other acyclic ethers & derivatives	69%	Malaysia, UAE, Singapore & China
		2,2 Oxydiethanol	16%	
		Inorganic		
1.	2833	Magnesium Sulphate	38%	Tanzania Rep, USA, Netherlands, Kenya & Italy
		Disodium Sulphate	27%	
		Manganese Sulphate	18%	
2.	2827	Chlorides of Aluminium	35%	UAE, Saudi Arabia, Belgium, USA & Oman
		Other Chlorides	25%	
		Calcium Chloride	24%	
3.	2803	Carbon Black	96%	Sri Lanka, Vietnam, Korea & Japan
4.	2806	Hydrochloric Acid (Hydrogen Chloride)	100%	UAE, Vietnam, Iraq & Malaysia
5.	2815	Flakes of Sodium Hydroxide(Caustic Soda)	82%	Tanzania, Kenya, Singapore, Nepal, Sri Lanka & Uganda
		Sodium Hydroxide in aq. solution	12%	
6.	2836	Calcium Carbonate	53%	Nepal, Bangladesh, Sri Lanka & Nigeria
		Disodium Carbonate light (soda ash)	26%	
		Sodium Hydrogen Carbonate	10%	
		Agro Chemicals		
1.	3808	Fungicides	42%	Brazil, USA, Bangladesh, France,

		Pesticides	13%	Netherlands & Vietnam
		Herbicides	11%	
		Insecticides	10%	

Table 18: Panel 2 - Key Product Category Details

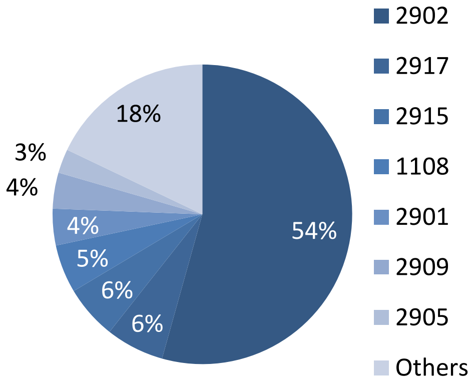
In FY16, India exported 5,220,637 MT of products under this panel registering an 11% volume growth over FY15.



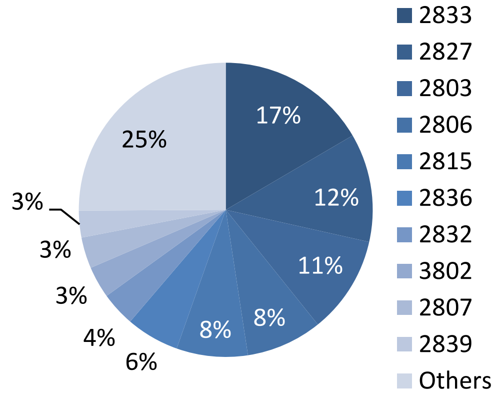
Total Volume Exports (Panel 2)
5,220,637 MT

Figure 14: Panel 2: India's Exports: Overall Top Product Categories (By Volume)

In Group 1, India exported 3,822,493 MT of products in FY16 registering a 13% volume growth over FY15. In Group 2, India exported 1,090,395 MT of products in FY16 registering a 7% volume growth over FY15.



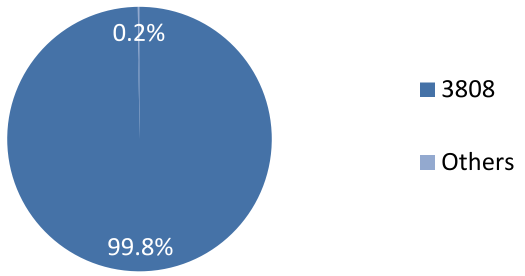
Total Volume Exports (Organic Chemicals)
3,822,493 MT



Total Volume Exports (Inorganic Chemicals)
1,090,395 MT

Figure 15: Panel 2: India's Exports: Group-wise Top Product Categories (By Volume)

In Group 3, India exported 307,749 MT of products in FY16 registering an 8% volume growth over FY15.



Total Volume Exports (Agrochemicals)
307,749 MT

Figure 16: Panel 2: India's Exports: Group-wise Top Product Categories (By Volume)

Under Group 1, product categories 2902 and 2917 have seen significant growth in last 2 years. 2902, 2917, 1108 and 2901 export volume has increased by more than 10% whereas product categories 2915 has experienced more than 10% decline in product volume.

Row Labels	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14- 15 Growth	FY 15- 16 Growth	FY 14- 16 Growth
2902	1,817,662	1,927,840	2,086,637		6%	8%	15%
2917	55,520	65,066	242,027		17%	272%	336%
2915	301,893	235,594	222,812		-22%	-5%	-26%
1108	180,468	202,553	200,190		12%	-1%	11%
2901	123,678	75,608	151,667		-39%	101%	23%
2909	142,293	135,638	148,998		-5%	10%	5%
2905	100,534	114,173	99,717		14%	-13%	-1%

Table 19: Panel 2: India's Exports: Top Product Category Trend - Group 1

Under Group 2, product categories 2833, 2827 and 2806 have seen significant growth in last 2 years. 2833, 2827, 2806, 2815, 2832 and 2807 export volume has increased by more than 10% whereas product categories 2836 and 2839 has experienced more than 10% decline in product volume.

Row Labels	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14- 15 Growth	FY 15- 16 Growth	FY 14- 16 Growth
2833	1,15,758	1,21,509	1,80,039		5%	48%	56%
2827	85,069	1,19,984	1,29,683		41%	8%	52%
2803	1,21,261	1,15,227	1,16,502		-5%	1%	-4%
2806	58,960	82,368	90,827		40%	10%	54%
2815	77,073	43,304	85,162		-44%	97%	10%
2836	1,46,731	79,078	63,597		-46%	-20%	-57%
2832	25,639	36,138	41,065		41%	14%	60%
3802	38,741	41,691	38,022		8%	-9%	-2%
2807	20,984	60,596	37,160		189%	-39%	77%
2839	59,523	49,512	31,961		-17%	-35%	-46%

Table 20: Panel 2: India's Exports: Top Product Category Trend - Group 2

Row Labels	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14- 15 Growth	FY 15- 16 Growth	FY 14- 16 Growth
3808	2,52,748	2,85,210	3,07,228		13%	8%	22%

Table 21: Panel 2: India's Exports: Top Product Category Trend - Group 3

Under Group 3, product category 3808 has seen an increase of 22% by volumes over the last 2 years.

b) *India's Exports: By Importing Country*

In FY16, India exported 5,220,637 MT of products under this panel registering 11% volume growth over FY15. As shown in following figure, 10 countries contribute towards 59% of India's exports under this panel.

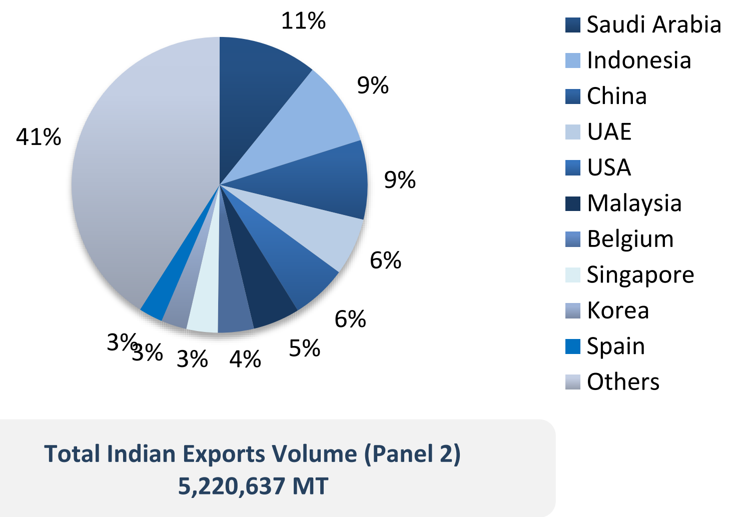


Figure 17: Panel 2: India's Exports: Overall Top Importing Countries (By Volume)

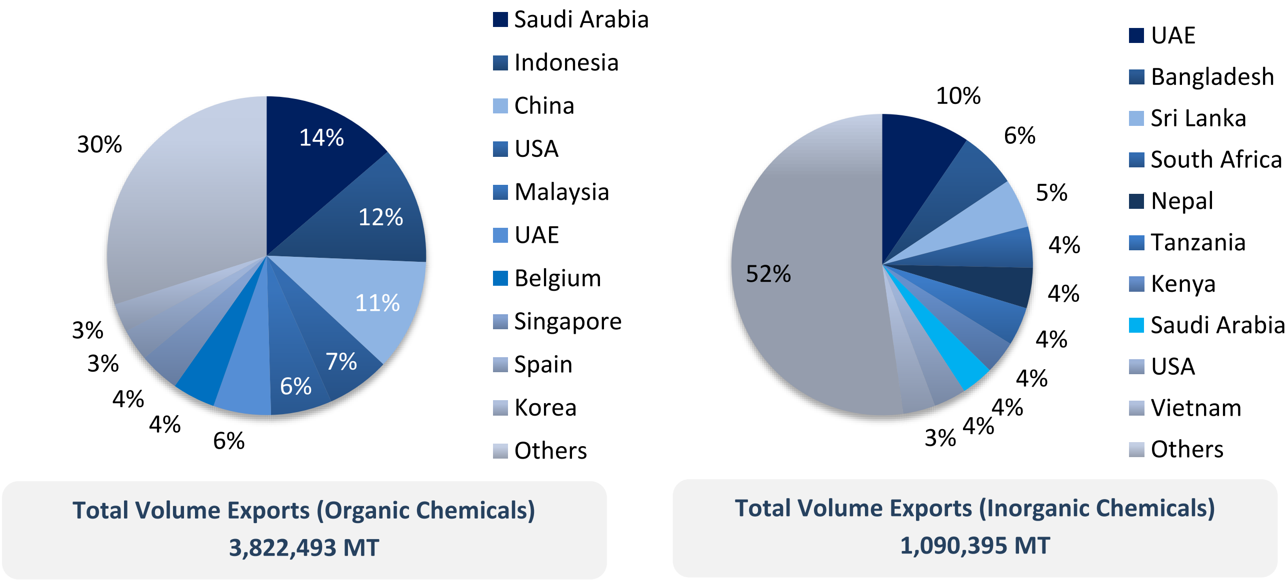


Figure 18: Panel 2: India's Exports: Group-wise Top Importing Countries (By Volume)

Globally, major importers of Group 1 are Saudi Arabia, Indonesia and China while major importers of Group 2 are UAE, Bangladesh and Sri Lanka. Major importers of Group 3 are Brazil, USA and Bangladesh.

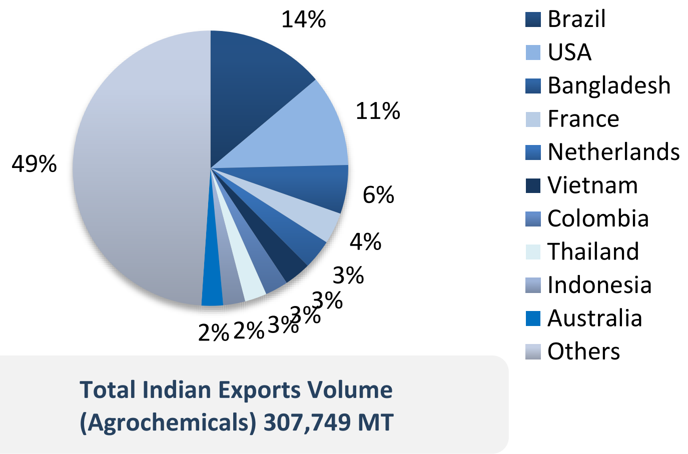


Figure 19: Panel 2: India's Exports: Group-wise Top Importing Countries (By Volume)

Country	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14-15 Growth	FY 15-16 Growth	FY 14-16 Growth
Saudi Arabia	224,265	211,920	524,751		-6%	148%	134%
Indonesia	323,739	463,746	457,204		43%	-1%	41%
China	329,097	532,904	432,699		62%	-19%	31%
USA	321,809	298,254	246,203		-7%	-17%	-23%
Malaysia	439,321	383,238	237,261		-13%	-38%	-46%
UAE	194,098	115,073	223,691		-41%	94%	15%
Belgium	162,915	153,537	166,964		-6%	9%	2%
Singapore	149,991	89,718	158,599		-40%	77%	6%
Spain	112,252	128,826	124,051		15%	-4%	11%
Korea	132,484	65,605	111,353		-50%	70%	-16%

Table 22: Panel 2: India's Exports: Top Importing Country Trend - Group 1

As shown in table 22, in Group 1, top 10 export destinations form 70% of India's export under this group. Share of top 10 countries in India's export has decreased from 72% to 70% from FY15 to FY16. As shown in table 23, In Group 2, Top 10 export destinations form 48% of India's export under this group. Share of top 10 countries in India's export has stayed at 48% from FY15 to FY16. As shown in table 24, In Group 3, Top 10 export destinations form 51% of India's export under this group. Share of top 10 countries in India's export has increased from 48% to 51% from FY15 to FY16.

Country	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14-15 Growth	FY 15-16 Growth	FY 14-16 Growth
UAE	90,895	96,294	1,03,177		6%	7%	14%
Bangladesh	90,331	52,234	66,700		-42%	28%	-26%
Sri Lanka	62,482	74,531	57,268		19%	-23%	-8%
South Africa	49,449	46,690	47,776		-6%	2%	-3%
Nepal	65,069	52,048	47,253		-20%	-9%	-27%
Tanzania	39,380	29,766	44,798		-24%	51%	14%
Kenya	36,786	31,333	38,543		-15%	23%	5%
Saudi Arabia	38,916	39,758	37,738		2%	-5%	-3%
U S A	34,306	44,494	37,700		30%	-15%	10%
Vietnam	21,983	22,719	37,497		3%	65%	71%

Table 23: Panel 2: India's Exports: Top Importing Country Trend - Group 2

Country	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14-15 Growth	FY 15-16 Growth	FY 14-16 Growth
Brazil	36,185	36,644	42,697		1%	17%	18%
U S A	21,668	24,243	33,179		12%	37%	53%
Bangladesh	10,836	16,009	17,675		48%	10%	63%
France	8,114	10,800	11,358		33%	5%	40%
Netherlands	9,629	12,299	10,726		28%	-13%	11%
Vietnam	8,489	9,644	9,676		14%	0%	14%
Colombia	6,024	5,732	8,310		-5%	45%	38%
Thailand	7,688	7,462	7,951		-3%	7%	3%
Indonesia	6,913	9,003	7,936		30%	-12%	15%
Australia	4,486	4,156	7,822		-7%	88%	74%

Table 24: Panel 2: India's Exports: Top Importing Country Trend - Group 3

B. Global Imports (Volume Trend Analysis)

In the previous section, the report discussed about the India's export for the panel. This section will highlight the overall global scenario highlighting key product categories and key export markets.

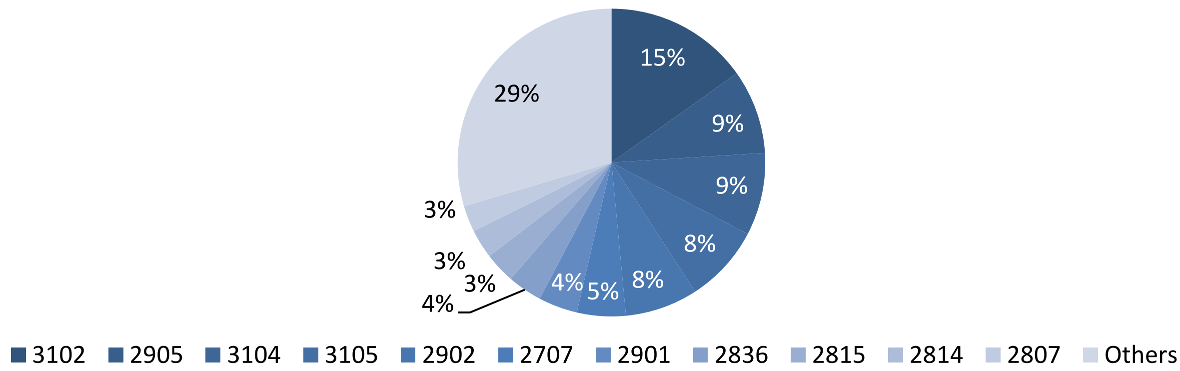
Following product categories are classified under this panel for the analysis of Global Imports.

HS Code	Description
1108	Starches; inulin
2207	Undenatured ethyl alcohol of an alcoholic strength by volume of 80% vol. Or higher; ethyl alcohol and other spirits, denatured, of any strength
2807	Sulphuric acid; oleum
2814	Ammonia, anhydrous or in aqueous solution
2815	Sodium hydroxide (caustic soda); potassium hydroxide (caustic potash); peroxides of sodium or potassium
2833	Sulphates; alums; peroxosulphates (persulphates)
2836	Carbonates; peroxocarbonates (percarbonates); commercial ammonium carbonate containing ammonium carbamate
2848	Phosphides, whether or not chemically defined, excluding ferrophosphorus
2901	Acyclic hydrocarbons
2902	Cyclic hydrocarbons
2905	Acyclic alcohols and their halogenated, sulphonated, nitrated or nitrosated derivatives
2909	Ethers, ether-alcohols, ether-phenols, ether-alcohol-phenols, alcohol peroxides, ether peroxides, ketone peroxides (whether or not chemically defined), and their halogenated, sulphonated, nitrated or nitrosated derivatives
2915	Saturated acyclic monocarboxylic acids and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives
2917	Polycarboxylic acids, their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives
3102	Mineral or chemical fertilisers, nitrogenous
3104	Mineral or chemical fertilisers, potassic
3105	Mineral or chemical fertilisers containing two or three of the fertilising elements nitrogen, phosphorus and potassium; other fertilisers; goods of this chapter in tablets or similar forms or in packages of a gross weight not exceeding 10 kg
3808	Insecticides, rodenticides, fungicides, herbicides, anti-sprouting products and plant-growth regulators, disinfectants and similar products, put up in forms or packings for retail sale or as preparations or articles (for example, sulphur-treated bands,wicks and candles, and fly-papers)
3824	Prepared binders for foundry moulds or cores; chemical products and preparations of the chemical or allied industries (including those consisting of mixtures of natural products), not elsewhere specified or included

Table 25: Panel 2 - Global Imports: Product Category Descriptions

a) Global Imports: By Product Category

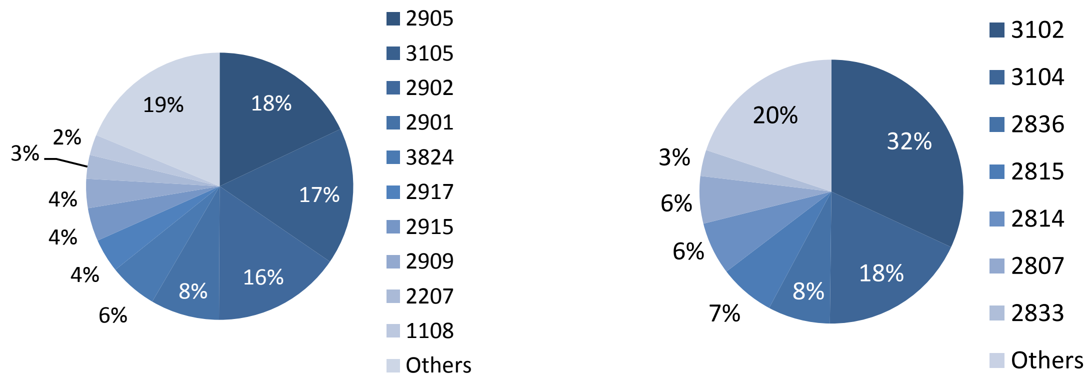
In 2015, global imports under this panel amounted to 563,959,125 MT registering 2% volume growth over 2014. There are 11 major product categories (3102, 2905, 3104, 3105, 2902, 2707, 2901, 2836, 2815, 2814 and 2807) that contribute towards 71% of the global trade in this panel.



Total Volume Exports (Panel 2)
563,959,125 MT

Figure 20: Panel 2: Global Imports: Overall Top Product Categories (By Volume)

Under Group 1, 10 product categories (2905, 3105, 2902, 2901, 3824, 2917, 2915, 2909, 2207 & 1108) form 81% (By volume). In Group 1, global imports amounted to 284,838,865 MT registering 3% volume's growth over 2014. Under Group 2, global imports were 274,612,081 MT in 2015 registering 1% volume growth over 2014. 7 product categories (3102, 3104, 2836, 2815, 2814, 2807 and 2833) contributed 80% to global imports.



Total Organic Chemicals Imports **284,838,865 MT**	**Total Inorganic Chemicals Imports** **274,612,081 MT**

Figure 21: Panel 2: Global Imports: Group-wise Top Product Categories (By Volume)

Under Group 3, global imports were 4,508,180 MT in 2015 registering negligible volume growth over 2014. 1 product categories (3808) contributed 99.9% towards global imports.

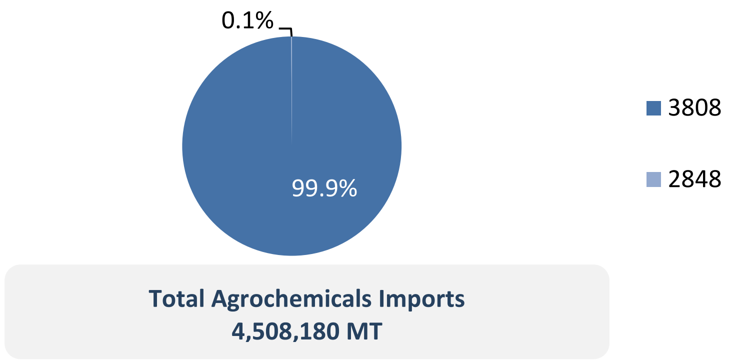


Figure 22: Panel 2: Global Imports: Group-wise Top Product Categories (By Volume)

Under Group 1, product category 3824 has seen significant growth in last 2 years with export volume increase of more than 10% whereas product categories 2917 has experienced more than 10% decline in product volume.

Row Labels	CY 13 Quantity (MT)	CY 14 Quantity (MT)	CY 15 Quantity (MT)	Volume Trend (CY13-15)	CY 13- 14 Growth	CY 14- 15 Growth	CY 13- 15 Growth
2905	51,287,087	52,300,336	51,149,918		2%	-2%	0%
3105	43,371,897	45,797,174	47,244,052		6%	3%	9%
2902	43,160,520	40,555,169	44,248,000		-6%	9%	3%
2901	22,296,721	21,093,087	23,750,580		-5%	13%	7%
3824	13,909,414	15,246,794	16,620,649		10%	9%	19%
2917	12,899,034	11,571,394	11,623,349		-10%	0%	-10%
2915	11,582,572	12,228,360	11,476,421		6%	-6%	-1%
2909	9,565,100	9,949,252	10,068,305		4%	1%	5%
2207	8,274,708	7,113,532	8,194,471		-14%	15%	-1%
1108	7,200,601	6,369,301	7,055,217		-12%	11%	-2%

Table 26: Panel 2: Global Imports: Top Product Category Trend- Group 1

Under Group 2, product category 3102 and 3104 has seen significant growth in last 2 years. Product category 3104 has seen export volume increase of more than 10%.

Row Labels	CY 13 Quantity	CY 14 Quantity	CY 15 Quantity	Volume Trend	CY 13- 14 Growth	CY 14- 15 Growth	CY 13- 15 Growth

	(MT)	(MT)	(MT)	(CY13-15)			
3102	83,478,549	86,188,407	87,626,026		3%	2%	5%
3104	44,327,515	46,998,233	50,168,655		6%	7%	13%
2836	21,891,972	21,575,087	20,969,238		-1%	-3%	-4%
2815	20,192,234	19,350,829	18,750,030		-4%	-3%	-7%
2814	18,691,658	12,445,864	17,718,898		-33%	42%	-5%
2807	14,903,704	13,701,518	15,924,280		-8%	16%	7%
2833	8,867,004	8,548,004	8,799,129		-4%	3%	-1%

Table 27: Panel 2: Global Imports: Top Product Category Trend- Group 2

Row Labels	CY 13 Quantity (MT)	CY 14 Quantity (MT)	CY 15 Quantity (MT)	Volume Trend (CY13-15)	CY 13- 14 Growth	CY 14- 15 Growth	CY 13- 15 Growth
3808	4,581,223	4,490,449	4,503,830		-2%	0%	-2%
2848	3,486	4,568	4,350		31%	-5%	25%

Table 28: Panel 2: Global Imports: Top Product Category Trend- Group 3

Under Group 3, product category 2848 has seen high growth in last 2 years with export volume increase of more than 10%.

b) *Global Imports: By Importing Countries*

After looking into the major product categories that are being globally imported, a further analysis is done for countries that import these products in large volumes. As shown in following figure, 10 countries contribute to 55% of India's export under this panel.

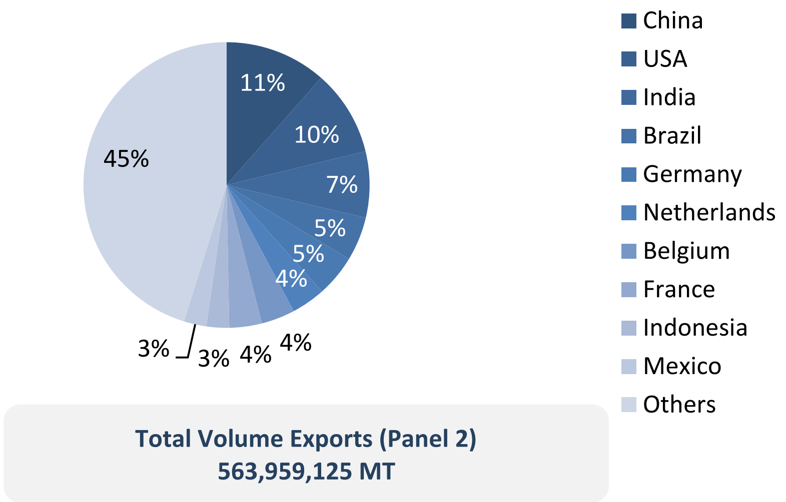


Figure 23: Panel 2: Global Imports: Overall Top Importing Countries (By Volume)

Globally, major importers of Group 1 are China, India and USA while major importers of Group 2 are USA, India and Brazil. Major importers of Group 3 are Brazil, France and Canada.

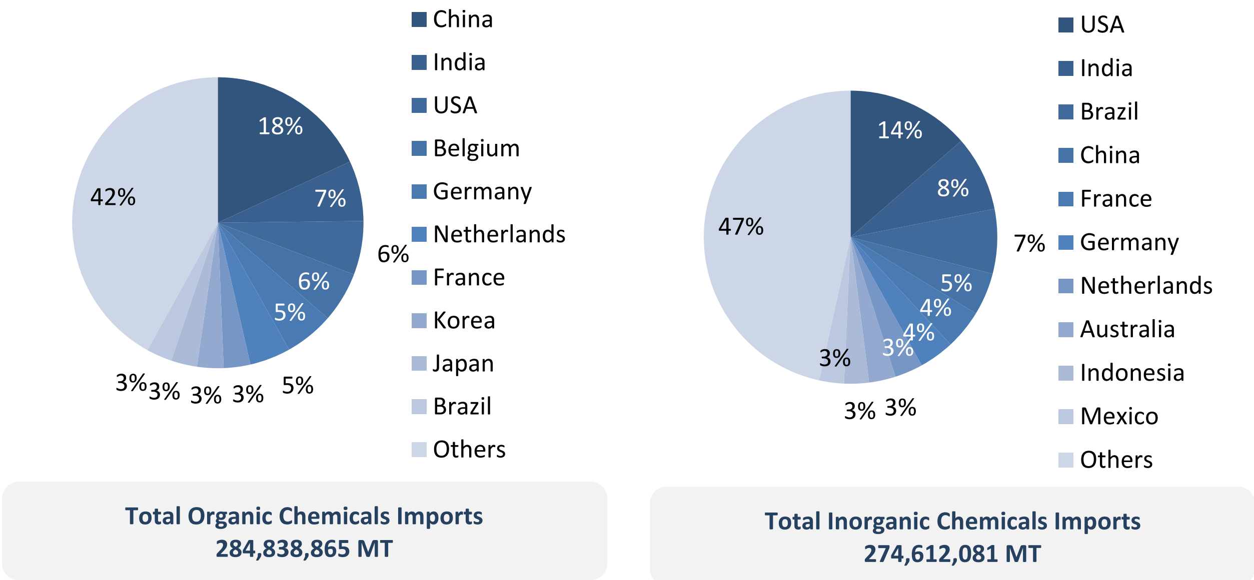
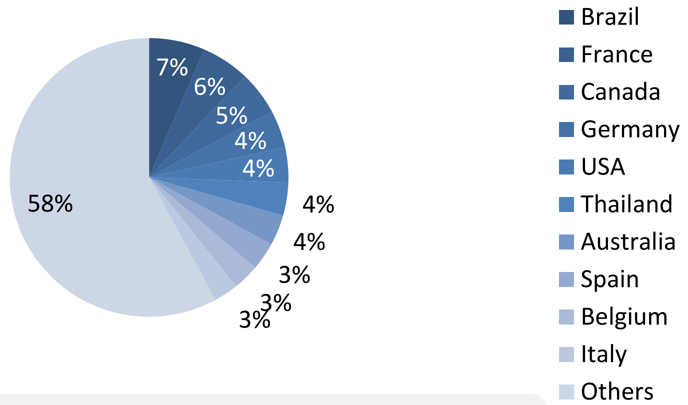


Figure 24: Panel 2: Global Imports: Group-wise Top Importing Countries (By Volume)



Total Agrochemicals Imports
4,508,180 MT

Figure 25: Panel 2: Global Imports: Group-wise Top Importing Countries (By Volume)

As shown in table 29, in Group 1, top 10 export destinations form 58% of India's export under this group. Share of top 10 countries in India's export has stayed at 58% between 2014 and 2015.

Country	CY13 Quantity (MT)	CY14 Quantity (MT)	CY15 Quantity (MT)	Volume Trend (CY13-15)	CY 13-14 Growth	CY 14-15 Growth	CY 13-15 Growth
China	50,855,046	49,572,470	51,575,437		-3%	4%	1%
India	13,816,761	15,230,308	19,127,907		10%	26%	38%
USA	18,807,006	18,685,194	17,028,131		-1%	-9%	-9%
Belgium	16,163,147	15,490,628	15,969,046		-4%	3%	-1%
Germany	14,714,250	15,811,957	15,559,646		7%	-2%	6%
Netherlands	13,648,774	12,311,312	12,978,178		-10%	5%	-5%
France	8,200,815	8,082,399	8,432,164		-1%	4%	3%
Korea	8,930,055	8,130,838	8,346,085		-9%	3%	-7%
Japan	7,828,495	7,950,521	8,230,960		2%	4%	5%
Brazil	8,868,099	10,265,405	8,099,007		16%	-21%	-9%

Table 29: Panel 2: Global Imports: Top Importing Country Trend - Group 1

As shown in table 30, in Group 2, top 10 export destinations form 53% of India's export under this group. Share of top 10 countries in India's export has increased from 49% to 53% from 2014 to 2015.

As shown in table 31, in Group 3, top 10 export destinations form 42% of India's export under this group. Share of top 10 countries in India's export has increased from 40% to 42% from 2014 to 2015.

Country	CY13 Quantity (MT)	CY14 Quantity (MT)	CY15 Quantity (MT)	Volume Trend (CY13-15)	CY 13-14 Growth	CY 14-15 Growth	CY 13-15 Growth
USA	35,815,837	24,670,293	37,294,917		-31%	51%	4%
India	19,120,522	19,435,795	22,825,717		2%	17%	19%
Brazil	21,160,522	23,240,914	19,586,692		10%	-16%	-7%
China	9,715,186	11,734,383	12,862,067		21%	10%	32%
France	11,305,976	12,012,827	11,937,317		6%	-1%	6%
Germany	9,549,565	10,691,665	10,675,266		12%	0%	12%
Netherlands	8,728,813	10,036,062	8,523,764		15%	-15%	-2%
Australia	8,135,434	8,269,498	8,055,341		2%	-3%	-1%
Indonesia	6,832,170	7,490,125	7,507,894		10%	0%	10%
Mexico	4,979,094	5,279,278	7,451,544		6%	41%	50%

Table 30: Panel 2: Global Imports: Top Importing Country Trend - Group 2

Country	CY13 Quantity (MT)	CY14 Quantity (MT)	CY15 Quantity (MT)	Volume Trend (CY13-15)	CY 13-14 Growth	CY 14-15 Growth	CY 13-15 Growth
Brazil	282,204	293,927	293,174		4%	0%	4%
France	234,908	248,936	252,932		6%	2%	8%
Canada	256,137	239,216	229,912		-7%	-4%	-10%
Germany	173,281	180,009	195,446		4%	9%	13%
USA	152,183	150,480	184,451		-1%	23%	21%
Thailand	198,652	192,029	173,043		-3%	-10%	-13%
Australia	131,927	134,411	161,218		2%	20%	22%
Spain	127,110	123,064	146,700		-3%	19%	15%
Belgium	108,781	129,201	137,946		19%	7%	27%
Italy	116,555	123,878	127,821		6%	3%	10%

Table 31: Panel 2: Global Imports: Top Importing Country Trend - Group 3

C. Strategic Insights

a) Country Prioritization

Country prioritization takes into consideration 199 countries across the world. This includes all the major export markets for India as well as top global importers. In order to prioritize top 20 markets for India, following parameters were taken into consideration:

1. Size of the market
2. Market Trend
3. Ease of Trading across borders
4. Trade Agreements of India with the country

All the countries are scored on a scale of 5 for these four parameters. The weighted average of 4 parameters is considered to come up with a cumulative score for a country.

1. **Size of the market:** The size (value) of the country imports is compared with the global imports for the panel and its percentage share is calculated.
2. **Market Trend:** Volume growth is considered to calculate the market trend for all countries over 2013 to 2015. Volume growth is considered for the calculation as it is not linked to fluctuations of crude oil prices and hence more accurately demonstrates the import requirement/trend of the country
3. **Ease of Trading across borders:** Ease of trading score is calculated across four parameters mentioned below

Import			
Time		Cost	
Documentary compliance (hours)	Border compliance (hours)	Documentary compliance (US$)	Border compliance (US$)

Table 32: Parameters evaluated for Ease of trading across border

"Doing Business" records the time and cost associated with the logistical process of exporting and importing goods. Doing Business measures the time and cost (excluding tariffs) associated with three sets of procedures—documentary compliance, border compliance and domestic transport—within the overall process of exporting or importing a shipment of goods.

4. **Trade Agreements of India with the country:** PTA, FTA, CRPA, CECA etc. have considerable bearing on the trade between two countries and gives competitive edge to the exporting country over other countries and hence is one of the key factors considered in the prioritization.

5. **India's exports to the country:** There are several countries that India is currently exporting products to; however, the overall size of these markets may be small. In order to overcome this aspect, India's exports to a particular country as a percentage to India's total exports are considered as the fifth parameter. For Panel 2, based on the methodology followed for this study, of a list of 199 countries, top 20 countries have been prioritized based on the **final overall score** in the last column and shown below:

High	**Medium**	**Low**

Sr. No.	Country	Import Share	Import Trend	Ease of Trading	Trade Agreements	Imports from India	Score
1	Germany						4.6
2	China						4.4
3	USA						4.0
4	Japan						3.6
5	Belgium						3.4
6	Netherlands						3.4
7	Spain						3.4
8	France						3.2
9	Italy						3.2
10	United Kingdom						3.0
11	Brazil						3.0
12	Mexico						3.0
13	Rep. of Korea						2.8
14	Indonesia						2.6
15	Malaysia						2.4
16	Saudi Arabia						2.4
17	Canada						2.2
18	Switzerland						2.2
19	Thailand						2.2
20	Singapore						2.2

Figure 26: Country Prioritization Summary

Germany emerges as the most attractive country for export of Panel 2 products. Germany scores highly on the volume of imports of Panel 2 products as well as Ease of trading across its borders. Time and cost associated with documentary / border compliances are amongst the lowest in the world and thus Germany stands as the most attractive country from the perspective of exports. However, there are issues with regard to REACH compliance which are touched upon in the section on Recommendations.

b) India's position as an Exporter

For each of the top 20 prioritized countries for Panel 2, following is a table with information on top 5 exporters along with their share to that country. This table have been constructed taking into consideration the top 10 products from Panel 2.

It can be clearly noticed that there are many country-product category combinations where India is not in top 5 and offers significant export opportunity.

1. Germany		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
2933	7,621	Switzerland	35.3%	Ireland	26.6%	Belgium	13.5%	USA	5.6%	China	4.3%
2902	1,324	Netherlands	51.2%	Switzerland	9.7%	Belgium	7.5%	Poland	6.7%	China	6.4%
3824	2,285	USA	13.7%	Belgium	12.8%	Ireland	12.1%	Netherlands	12.1%	France	8.1%
2905	2,670	Netherlands	28.2%	Belgium	24.8%	USA	4.8%	Sweden	4.6%	Poland	4.1%
3808	1,693	France	34.6%	Spain	12.7%	Belgium	8.6%	Israel	7.5%	Switzerland	6.3%
3102	918	Netherlands	22.0%	Poland	13.2%	Czechia	10.5%	Austria	10.4%	Russia	8.7%
2934	1,434	Switzerland	51.0%	USA	16.2%	India	5.9%	China	5.7%	Japan	5.0%
3105	473	Netherlands	18.4%	Belgium	18.2%	Poland	14.8%	Lithuania	14.6%	Austria	10.9%
2901	1,751	Netherlands	42.3%	Belgium	14.4%	UK	12.6%	Norway	8.3%	Portugal	6.3%
2922	3,639	Singapore	76.2%	China	5.3%	Switzerland	4.3%	USA	2.4%	France	1.9%
2. China		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
2933	2,682	Ireland	34.0%	USA	12.6%	Switzerland	10.4%	France	9.5%	Japan	5.3%
2902	16,440	Korea	40.0%	Japan	16.8%	Other Asia	10.8%	Singapore	5.4%	Saudi Arabia	5.1%
3824	6,062	Japan	27.8%	Korea	18.6%	Other Asia	13.8%	USA	13.1%	Germany	6.6%
2905	20,793	Saudi Arabia	34.1%	Other Asia	12.7%	Singapore	8.2%	Iran	7.7%	Korea	6.4%
3808	749	USA	19.6%	Germany	10.7%	Singapore	7.7%	Korea	7.6%	Indonesia	7.1%
3102	14	Norway	35.0%	Germany	19.0%	USA	14.7%	Korea	8.2%	UK	5.2%
2934	464	USA	35.7%	Japan	14.2%	UK	13.9%	Italy	7.5%	India	5.4%
3105	900	Norway	37.5%	Russia	20.1%	Belgium	13.1%	Finland	6.7%	Romania	4.6%
2901	4,417	Korea	40.6%	Japan	32.5%	Other Asia	17.2%	USA	1.7%	Philippines	1.6%
2922	355	USA	17.3%	Sweden	13.4%	Saudi Arabia	11.2%	Japan	9.2%	India	8.8%
3.USA		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
2933	10,803	Ireland	49.7%	Singapore	9.7%	China	7.8%	Germany	6.8%	Switzerland	4.9%
2902	3,088	Rep of Korea	22.7%	Canada	19.1%	Japan	15.2%	Brazil	9.1%	Netherlands	8.3%
3824	2,892	Singapore	21.5%	Canada	13.9%	Germany	13.3%	China	12.3%	Japan	10.1%
2905	5,512	Trinidad and Tobago	26.2%	Canada	25.9%	Venezuela	7.5%	Saudi Arabia	6.3%	Germany	5.9%
3808	1,205	China	19.7%	Germany	13.4%	India	10.7%	Mexico	10.0%	UK	9.0%
3102	3,896	Canada	17.4%	China	13.5%	Russian Fed.	12.3%	Qatar	11.5%	Trinidad and Tobago	7.2%
2934	10,027	UK	42.9%	Ireland	21.1%	Belgium	14.2%	Singapore	4.3%	China	3.5%
3105	898	Russian Fed.	29.9%	Morocco	23.7%	China	16.0%	Israel	5.9%	Canada	5.5%
2901	1,441	Canada	59.1%	South Africa	13.2%	Brazil	6.4%	China	5.4%	Belgium	4.2%
2922	2,276	Ireland	28.5%	Singapore	27.0%	China	14.4%	India	5.0%	Germany	4.3%
4. Japan		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share

2933	2,941	Spain	15.6%	Ireland	14.3%	USA	12.6%	China	11.7%	Germany	9.3%
2902	482	Rep of Korea	58.3%	Germany	17.0%	China	13.2%	Thailand	4.1%	USA	3.2%
3824	1,166	China	30.4%	USA	25.3%	Germany	9.0%	Viet Nam	4.6%	Rep of Korea	4.3%
2905	2,055	Saudi Arabia	32.5%	Malaysia	14.3%	New Zealand	8.7%	USA	6.4%	Germany	5.5%
3808	438	China	23.3%	USA	12.6%	Rep of Korea	11.6%	Belgium	9.7%	Germany	6.8%
3102	135	China	35.9%	Malaysia	33.0%	Chile	6.3%	Rep of Korea	6.1%	Thailand	6.0%
2934	1,276	France	26.5%	USA	16.6%	China	15.6%	Germany	7.9%	Belgium	6.3%
3105	340	China	41.2%	USA	36.6%	Rep of Korea	7.3%	Saudi Arabia	4.7%	Chile	2.7%
2901	137	Rep of Korea	36.5%	Other Asia*	16.4%	USA	15.3%	South Africa	6.4%	China	4.8%
2922	668	China	27.0%	USA	12.4%	Brazil	10.9%	Indonesia	10.8%	Switzerland	7.7%
5. Belgium		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	9,449	Ireland	77.0%	USA	8.8%	Singapore	4.2%	Netherlands	3.5%	Japan	2.5%
2902	2,802	Netherlands	41.9%	Spain	15.1%	Germany	11.4%	USA	8.9%	Saudi Arabia	7.0%
3824	872	Germany	31.1%	Netherlands	16.1%	USA	14.3%	France	9.2%	Ireland	8.6%
2905	2,473	Germany	22.6%	USA	19.1%	Netherlands	13.4%	Saudi Arabia	13.0%	Trinidad and Tobago	6.9%
3808	819	France	29.2%	Germany	17.7%	Netherlands	9.7%	UK	9.2%	USA	7.6%
3102	470	Netherlands	48.8%	Lithuania	9.6%	Germany	7.6%	France	5.8%	Russian Fed	4.8%
2934	884	Singapore	28.8%	USA	21.8%	Ireland	18.6%	China	8.6%	Japan	6.6%
3105	322	Netherlands	21.5%	Germany	20.8%	Russian Fed	17.9%	Norway	15.7%	Lithuania	8.5%
2901	3,154	Netherlands	32.6%	Germany	22.5%	UK	13.7%	France	6.7%	USA	5.7%
2922	3,220	Singapore	84.1%	Ireland	5.0%	USA	3.0%	Germany	2.1%	Netherlands	2.0%
6. Netherlands		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	1,930	Ireland	31.7%	USA	28.6%	Singapore	24.7%	China	3.7%	Switzerland	2.0%
2902	1,239	Germany	33.8%	Belgium	20.0%	UK	14.3%	France	7.4%	Spain	6.0%
3824	249	Germany	38.7%	Belgium	15.1%	France	8.7%	Denmark	7.4%	China	6.0%
2905	2,776	Germany	28.3%	Belgium	10.0%	Oman	9.8%	Equatorial Guinea	9.6%	Venezuela	8.2%
3808	732	Belgium	23.5%	Germany	18.6%	France	15.3%	UK	13.9%	Israel	10.6%
3102	283	Germany	24.3%	Belgium	21.0%	France	14.2%	UK	10.8%	Spain	4.3%
2934	196	USA	24.6%	Switzerland	18.0%	Germany	15.9%	China	15.7%	Singapore	5.7%
3105	229	Belgium	29.7%	Lithuania	15.5%	Morocco	13.0%	Germany	11.9%	Finland	7.3%
2901	1,383	Belgium	30.3%	Italy	20.2%	UK	15.2%	Germany	9.4%	Spain	7.8%
2922	414	China	26.9%	USA	18.9%	France	17.6%	Germany	11.6%	Belgium	5.4%
7. Spain		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	2,262	Other Europe, nes	29.1%	Switzerland	18.8%	Germany	13.4%	Italy	11.1%	China	9.0%
2902	634	Saudi Arabia	18.8%	France	15.7%	Israel	11.9%	USA	10.4%	Netherlands	8.2%
3824	754	Ireland	35.2%	Germany	20.3%	Netherlands	7.6%	France	7.4%	Belgium	5.0%
2905	1,153	Germany	24.6%	Saudi Arabia	24.5%	France	8.8%	Trinidad and Tobago	8.2%	Belgium	4.0%
3808	907	Germany	24.0%	France	17.4%	Belgium	9.4%	Portugal	7.3%	UK	7.2%
3102	566	Algeria	14.6%	Netherlands	10.2%	Germany	8.8%	Belgium	8.3%	Portugal	6.7%
2934	517	USA	29.6%	China	13.9%	Austria	9.8%	Japan	8.8%	Ireland	8.8%
3105	527	Morocco	20.8%	Belgium	17.8%	Portugal	10.8%	Lithuania	10.8%	Russian Fed	7.5%

2901	267	Netherlands	20.2%	Portugal	19.4%	Italy	18.7%	France	13.9%	Belgium	8.2%
2922	389	China	22.9%	France	18.2%	Germany	15.8%	USA	10.5%	Indonesia	6.5%
8. France		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	2,079	Germany	22.4%	USA	16.9%	Switzerland	11.3%	China	10.8%	Belgium	6.7%
2902	764	Netherlands	44.7%	UK	14.1%	Germany	11.0%	Saudi Arabia	7.0%	Spain	6.9%
3824	1,379	Germany	31.7%	Netherlands	14.3%	Belgium	12.0%	Italy	6.8%	USA	5.5%
2905	1,300	Germany	30.6%	Trinidad and Tobago	17.5%	Belgium	11.4%	Netherlands	7.2%	USA	7.0%
3808	2,159	Germany	39.5%	Belgium	9.9%	Spain	8.5%	Italy	6.8%	UK	6.8%
3102	1,403	Belgium	23.1%	Netherlands	15.2%	Algeria	11.2%	Lithuania	9.3%	Russian Fed	8.4%
2934	640	Germany	30.3%	Switzerland	9.3%	Ireland	8.9%	India	8.0%	Japan	7.1%
3105	522	Belgium	23.4%	Morocco	15.3%	Russian Fed	15.3%	Netherlands	13.7%	Germany	11.6%
2901	922	Belgium	24.3%	Germany	23.8%	Netherlands	17.6%	Italy	9.4%	USA	5.7%
2922	373	Germany	21.6%	Switzerland	18.8%	USA	8.8%	China	8.7%	Belgium	8.1%
9. Italy		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	3,234	Belgium	47.1%	Switzerland	19.7%	Germany	9.0%	China	4.8%	Ireland	3.3%
2902	475	Turkey	19.3%	Netherlands	15.9%	France	13.6%	Spain	11.5%	Israel	10.0%
3824	922	Germany	29.6%	Ireland	16.7%	Netherlands	11.4%	France	10.3%	Belgium	6.8%
2905	1,602	Germany	27.7%	Saudi Arabia	17.1%	Netherlands	9.1%	France	8.7%	Trinidad and Tobago	5.1%
3808	825	France	21.5%	Germany	20.2%	Belgium	10.6%	United Kingdom	7.7%	Spain	5.9%
3102	387	Ukraine	17.7%	Russian Fed	11.5%	Egypt	8.8%	Croatia	8.6%	Austria	6.9%
2934	481	China	24.9%	Ireland	17.1%	Germany	13.0%	India	8.9%	Netherlands	6.7%
3105	362	Belgium	17.8%	Tunisia	13.1%	Germany	12.6%	Russian Fed	12.2%	Lithuania	6.0%
2901	168	France	26.9%	Germany	11.1%	China	7.9%	Serbia	7.4%	Qatar	6.4%
2922	518	Germany	24.6%	Switzerland	15.9%	China	13.7%	Belgium	10.4%	Netherlands	8.1%
10. United Kingdom		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	2,028	Netherlands	28.4%	Ireland	23.6%	France	10.1%	Germany	8.8%	India	6.2%
2902	250	Netherlands	44.4%	Germany	18.1%	Belgium	17.9%	France	6.9%	Spain	4.7%
3824	1,129	Netherlands	18.7%	Germany	18.6%	France	15.5%	China	10.4%	Belgium	9.4%
2905	1,020	Germany	32.7%	Netherlands	16.2%	Belgium	14.8%	Sweden	11.8%	France	5.6%
3808	990	France	36.3%	Germany	15.1%	Belgium	10.1%	USA	7.1%	Italy	5.1%
3102	720	Netherlands	19.1%	Lithuania	12.9%	Germany	12.5%	Belgium	9.8%	Poland	9.0%
2934	505	Ireland	38.2%	China	11.2%	Switzerland	7.1%	USA	6.5%	Belgium	6.2%
3105	256	Norway	24.6%	Russian Fed	17.2%	Netherlands	15.0%	Finland	11.4%	Lithuania	10.2%
2901	135	Belgium	28.3%	France	20.0%	USA	18.5%	Germany	11.5%	Norway	6.3%
2922	462	USA	37.6%	Germany	18.9%	China	6.8%	Netherlands	6.4%	France	5.5%
11. Brazil		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	2,052	Germany	25.9%	China	18.3%	USA	14.1%	France	9.3%	UK	7.2%
2902	344	USA	89.6%	Saudi Arabia	4.1%	Argentina	2.4%	Germany	0.8%	France	0.7%
3824	403	USA	33.2%	Germany	18.1%	China	10.8%	Italy	5.0%	Argentina	4.7%
2905	-	-	-	-	-	-	-	-	-	-	-

3808	3,081	USA	23.9%	France	18.1%	Argentina	8.9%	China	6.2%	UK	5.5%
3102	1,584	Qatar	28.4%	Russian Fed	24.9%	Netherlands	7.5%	China	6.0%	USA	5.0%
2934	427	China	29.9%	Switzerland	20.7%	India	10.6%	Germany	9.9%	Mexico	7.5%
3105	2,032	USA	27.9%	China	22.0%	Russian Fed	19.6%	Morocco	17.4%	Norway	3.4%
2901	80	USA	39.8%	Saudi Arabia	26.3%	South Africa	21.3%	Belgium	2.9%	Qatar	2.6%
2922	201	China	33.0%	USA	14.9%	India	10.4%	Germany	6.5%	Italy	5.4%
12. Mexico		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	544	China	27.4%	India	15.9%	USA	9.4%	Ireland	8.9%	Germany	5.9%
2902	1,610	USA	93.3%	Netherlands	2.1%	France	1.1%	Russian Fed	0.7%	Germany	0.6%
3824	1,209	USA	73.3%	Germany	4.8%	China	4.4%	Spain	2.7%	France	1.6%
2905	1,035	USA	68.0%	Germany	14.7%	Trinidad and Tobago	5.2%	China	2.2%	Sweden	1.6%
3808	670	USA	46.9%	Germany	8.6%	China	6.1%	France	5.7%	Colombia	5.5%
3102	716	China	39.4%	Russian Fed	21.7%	USA	11.1%	Chile	4.0%	Belgium	3.6%
2934	643	USA	67.9%	China	12.9%	India	6.6%	Italy	2.6%	Germany	2.5%
3105	541	USA	32.4%	China	15.7%	Chile	13.7%	Russian Fed	9.0%	Norway	7.7%
2901	442	USA	49.6%	Brazil	27.8%	Spain	7.2%	Portugal	5.7%	UK	3.5%
2922	258	USA	42.5%	China	22.9%	India	9.0%	Spain	6.4%	Switzerland	5.4%
13. Rep of Korea		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	949	China	31.6%	Japan	18.8%	USA	10.1%	UK	6.7%	Germany	6.2%
2902	1,800	Japan	68.5%	Germany	7.7%	USA	7.6%	China	4.9%	Saudi Arabia	4.3%
3824	1,698	Japan	45.6%	China	16.8%	USA	15.5%	Germany	7.4%	France	3.8%
2905	2,701	Saudi Arabia	25.0%	New Zealand	15.9%	Japan	8.7%	USA	6.7%	Malaysia	6.4%
3808	194	USA	22.1%	Japan	14.9%	Singapore	10.1%	China	9.8%	Colombia	7.0%
3102	236	China	85.8%	Qatar	6.6%	Japan	3.4%	Norway	1.4%	Germany	0.8%
2934	378	China	32.0%	Switzerland	13.0%	Japan	11.6%	India	10.6%	Austria	9.2%
3105	91	China	35.4%	Viet Nam	30.1%	Japan	5.1%	USA	4.8%	Netherlands	3.9%
2901	1,120	Japan	51.8%	Singapore	9.4%	Other Asia*	8.4%	India	5.8%	USA	5.0%
2922	311	China	47.1%	Indonesia	13.4%	Japan	12.3%	India	6.7%	USA	6.1%
14. Indonesia		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	289	China	35.3%	Germany	10.5%	India	8.7%	USA	6.6%	Japan	6.5%
2902	1,054	Singapore	30.5%	India	29.8%	Thailand	11.2%	Kuwait	9.6%	Oman	6.7%
3824	279	China	19.9%	Japan	15.6%	Singapore	13.1%	USA	8.1%	Thailand	7.0%
2905	682	Singapore	38.4%	Malaysia	16.9%	Saudi Arabia	13.1%	Kuwait	10.2%	Japan	3.4%
3808	382	China	39.8%	USA	15.6%	Singapore	8.2%	India	8.0%	Malaysia	7.2%
3102	269	China	77.1%	Australia	8.3%	Rep of Korea	4.9%	Malaysia	3.3%	Belgium	1.6%
2934	96	China	44.3%	Japan	16.3%	India	13.8%	Switzerland	10.0%	Rep of Korea	4.7%
3105	470	China	36.1%	Malaysia	25.8%	Norway	15.0%	Viet Nam	7.8%	Morocco	3.7%
2901	1,196	Singapore	24.2%	Malaysia	18.3%	Saudi Arabia	15.4%	Thailand	12.6%	Other Asia*	8.8%
2922	149	China	57.6%	India	8.9%	Germany	7.1%	Switzerland	5.0%	Italy	4.0%
15. Malaysia		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	142	China	31.9%	Australia	8.8%	Germany	8.6%	Japan	8.3%	USA	7.0%
2902	487	Singapore	40.9%	Kuwait	21.7%	India	17.3%	Thailand	9.3%	Indonesia	4.0%

3824	311	Japan	20.1%	China	17.1%	Singapore	12.7%	USA	10.5%	Other Asia*	8.2%
2905	314	Oman	34.0%	Singapore	11.1%	Qatar	10.1%	Saudi Arabia	7.0%	China	5.5%
3808	210	China	29.9%	Germany	14.7%	Thailand	13.4%	Indonesia	11.6%	USA	6.0%
3102	289	China	63.3%	Other Asia*	7.0%	Japan	6.9%	Viet Nam	4.4%	Ukraine	2.4%
2934	18	China	42.6%	France	11.7%	Japan	9.0%	Indonesia	8.8%	Belgium	5.8%
3105	264	China	21.5%	Belgium	15.2%	Russian Fed	13.8%	India	9.6%	Canada	7.2%
2901	176	Singapore	50.2%	Other Asia*	11.1%	Saudi Arabia	8.5%	Thailand	8.1%	Rep of Korea	6.8%
2922	106	China	33.1%	Indonesia	30.1%	USA	10.3%	Brazil	5.9%	Singapore	4.9%
16. Saudi Arabia		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	38	China	32.7%	India	12.5%	Ireland	9.9%	Japan	8.6%	Germany	7.0%
2902	453	India	54.6%	Rep of Korea	23.1%	Thailand	8.0%	Oman	3.7%	Netherlands	2.7%
3824	490	USA	17.6%	UAE	17.5%	China	14.0%	India	11.4%	Belgium	5.7%
2905	-	-	-	-	-	-	-	-	-	-	-
3808	152	UAE	30.4%	USA	12.3%	China	9.0%	India	5.1%	UK	4.6%
3102	37	Egypt	48.3%	Sweden	18.1%	Germany	5.3%	Russian Fed	5.0%	China	4.8%
2934	6	China	31.4%	USA	27.3%	India	17.6%	Japan	7.7%	Other Asia*	4.7%
3105	39	China	22.0%	UAE	17.7%	Jordan	14.0%	Germany	9.0%	Spain	8.7%
2901	84	Belgium	36.3%	Qatar	15.1%	Other Asia*	10.1%	USA	9.7%	Malaysia	7.1%
2922	66	USA	35.0%	Germany	12.8%	UK	9.6%	China	8.7%	Japan	5.5%
17. Canada		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	611	USA	31.2%	India	13.1%	Mexico	10.7%	China	7.4%	Switzerland	7.0%
2902	271	USA	74.9%	Switzerland	5.1%	Russian Fed	3.6%	Finland	3.5%	Belgium	3.0%
3824	815	USA	78.8%	China	6.1%	Germany	3.4%	France	2.8%	Mexico	1.0%
2905	-	-	-	-	-	-	-	-	-	-	-
3808	1,316	USA	77.3%	Switzerland	5.7%	UK	4.0%	Germany	3.4%	Israel	2.5%
3102	603	USA	37.5%	Russian Fed	11.6%	Germany	7.5%	Trinidad and Tobago	6.6%	Lithuania	4.9%
2934	864	Switzerland	32.0%	France	22.2%	Ireland	13.3%	USA	10.2%	Rep of Korea	8.6%
3105	748	USA	91.8%	Russian Fed	3.8%	Mexico	1.0%	Morocco	0.7%	Netherlands	0.5%
2901	513	USA	93.7%	South Africa	5.4%	Saudi Arabia	0.5%	Germany	0.1%	China	0.1%
2922	245	USA	57.7%	China	13.0%	India	5.8%	Italy	5.2%	Germany	3.5%
18. Switzerland		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	5,737	Ireland	66.6%	UK	17.9%	Germany	4.4%	China	3.0%	USA	2.1%
2902	56	Germany	31.0%	China	19.9%	Austria	9.5%	France	8.2%	UK	7.2%
3824	535	Germany	42.8%	Ireland	9.3%	France	7.5%	UK	6.7%	Italy	5.5%
2905	-	-	-	-	-	-	-	-	-	-	-
3808	181	Germany	28.3%	France	21.7%	Austria	11.3%	Italy	8.6%	UK	5.6%
3102	49	Germany	42.1%	Netherlands	35.9%	Austria	5.5%	Belgium	5.0%	France	3.3%
2934	409	UK	29.5%	Belgium	13.5%	Slovenia	10.4%	China	9.9%	Ireland	8.1%
3105	40	Germany	48.6%	Belgium	14.8%	France	11.0%	Netherlands	9.3%	Austria	4.8%
2901	51	Netherlands	50.1%	Germany	25.2%	Italy	4.7%	Spain	4.6%	China	4.1%
2922	319	India	24.0%	UK	23.1%	China	14.5%	Germany	11.4%	Denmark	8.4%
19. Thailand		**Top Exporting Countries**									

Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
2933	166	China	42.2%	India	16.8%	Japan	15.9%	Belgium	4.0%	Germany	3.7%
2902	225	India	39.0%	Singapore	36.6%	Malaysia	9.8%	Saudi Arabia	3.8%	Indonesia	3.5%
3824	439	China	25.5%	Japan	16.8%	USA	15.7%	Germany	6.7%	Other Asia*	6.2%
2905	554	Saudi Arabia	31.0%	Malaysia	18.1%	Singapore	14.1%	Indonesia	6.7%	Qatar	5.0%
3808	588	China	50.0%	India	7.2%	Malaysia	5.8%	Indonesia	5.2%	USA	4.7%
3102	658	Saudi Arabia	40.7%	Qatar	16.8%	Malaysia	13.6%	China	9.8%	Kuwait	6.5%
2934	109	Switzerland	43.9%	China	32.9%	Japan	8.7%	India	5.0%	Belgium	2.2%
3105	837	Russian Fed	29.9%	China	27.6%	Norway	12.4%	Rep of Korea	12.1%	Finland	5.2%
2901	251	South Africa	37.9%	Qatar	19.1%	Rep of Korea	8.7%	Singapore	7.2%	Belgium	6.0%
2922	258	China	71.6%	India	6.8%	Indonesia	5.1%	USA	4.3%	Rep of Korea	2.1%
20. Singapore		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
2933	949	USA	33.5%	Switzerland	32.9%	UK	14.3%	China	9.8%	Germany	3.1%
2902	446	Thailand	58.8%	India	15.6%	Malaysia	14.8%	Rep of Korea	5.9%	Other Asia*	0.9%
3824	419	USA	30.0%	China	14.0%	Japan	13.1%	UK	9.6%	Malaysia	8.2%
2905	553	Saudi Arabia	40.9%	USA	15.6%	Malaysia	7.2%	Germany	4.8%	Bahrain	4.0%
3808	135	China	29.8%	India	24.9%	USA	7.7%	Indonesia	6.9%	Malaysia	5.2%
3102	7	USA	27.7%	Malaysia	21.4%	China	18.0%	Belgium	13.8%	Germany	3.9%
2934	292	Ireland	32.4%	UK	16.2%	India	15.0%	China	10.6%	Switzerland	8.0%
3105	5	USA	41.1%	Malaysia	15.2%	China	10.6%	Indonesia	6.2%	Australia	4.8%
2901	312	South Africa	27.5%	Qatar	19.8%	Malaysia	16.4%	Thailand	9.1%	USA	6.7%
2922	100	USA	20.7%	Japan	18.1%	China	13.9%	India	11.2%	Germany	9.4%

Table 33: Competition Analysis for Prioritized Countries

***Note**: * indicates nes i.e. area not elsewhere specified*

Key Highlights:

- India has a much stronger presence as an exporter in 4 out of 20 countries (Brazil, Mexico, Indonesia and Thailand). India features amongst the top 5 exporters for 4 of the top 10 products to Thailand.
- India is the largest exporter of product category: cyclic hydrobons (HS code 2902) to the Saudi Arabia and Thailand.
- India does not feature in the top 5 exporters to any of the prioritized European countries for most of the products

c) *Country Attractiveness – Panel 2*

The top 20 countries for Panel 2 have been bucketed as shown below.

Threshold of 3% assumed for a country's total imports to the total imports for all countries. India's export to the respective country has been adjudged as High/Low if it is greater/lower than 0.5 times the country's import share of the total world import.

This categorization of countries is thus based on a dependent parameter where India's export share as High/Low is dependent on the total imports for each country.

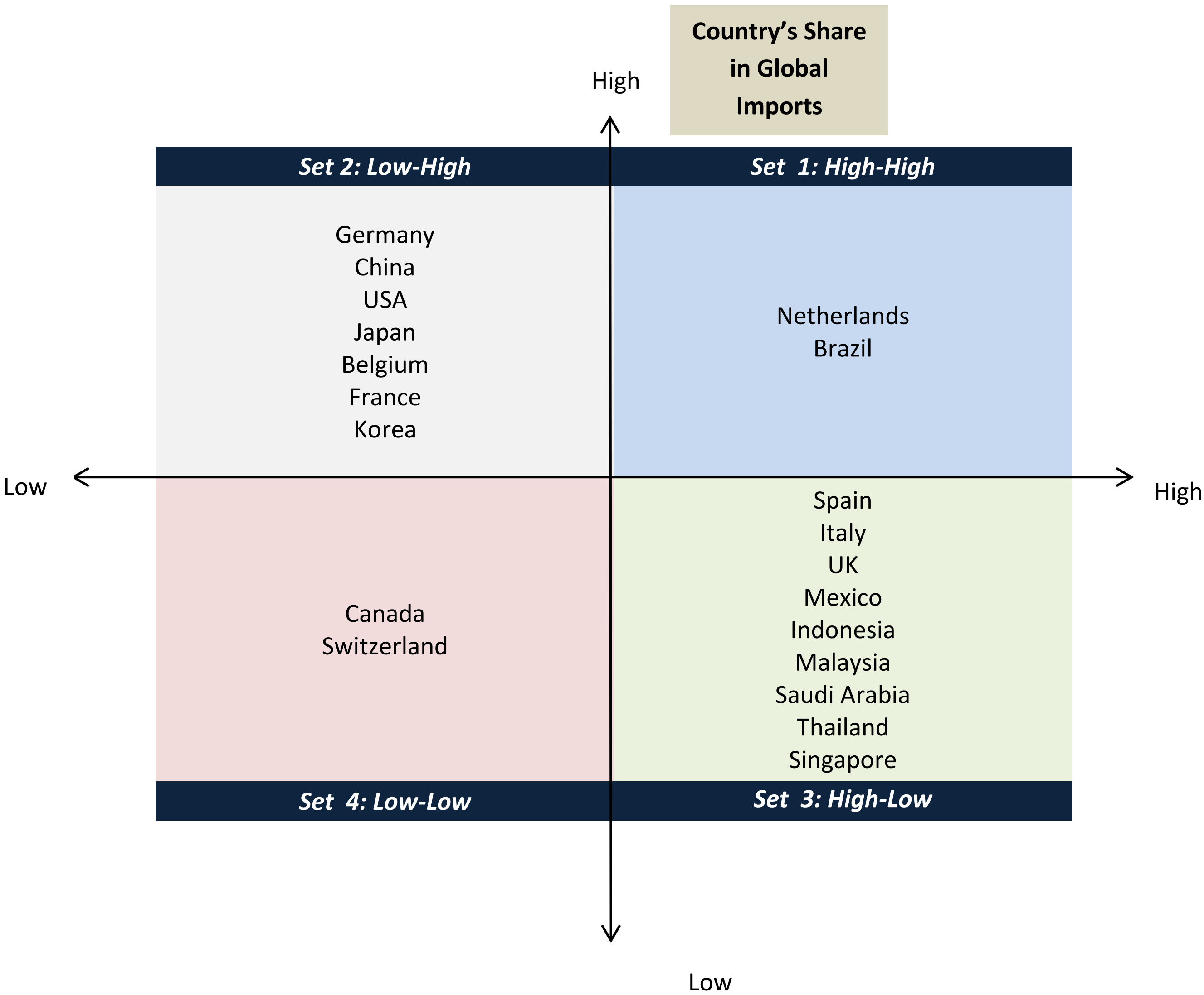


Figure 27: Country Categorization Chart

Set 1: High-High

As per our analysis, Netherlands emerges as the top nation in this category. It has a rank of 6 in our Country Prioritization List but is one of the largest importers of Panel 2 products from India. Brazil is the other country that falls within this cluster with high import share along with reasonably high import volumes from India. The key takeaway from this list would allude to the fact that Indian exporters have been relatively successful in making inroads into these countries but stand with an opportunity of further penetration, given the large size of the market in the respective countries.

Set 2: Low-High

Germany is the top ranked country in this category of countries with high share of global imports of panel 2 products along with China, USA, Japan, Belgium, France and Korea. Focus on this category would imply tapping into export opportunities prevalent in these markets which are currently under-penetrated by India.

Set 3: High-Low

Spain is the top ranked country in this category of countries with a reasonably low share of global imports of panel 2 products, with Italy, UK, Mexico and a few others constituting the remaining countries in this cluster. Based on this analysis, India has a good presence in these countries and with a relatively low share of global imports of Panel 2 products, Indian exporters can look to diversify their product exports into these countries, given the stronghold already established in Panel 2 products.

Set 4: Low-Low

Amongst the top 20 countries, Canada and Switzerland fall under this cluster.

D. Key Recommendations

Organic Chemicals, Inorganic Chemicals and Agrochemicals are key part of Indian Chemicals industry. India has the technical ability to produce internationally competitive products but faces the following challenges:

1. Feedstock availability is a major challenge faced by manufacturers of commoditized organic and inorganic products which lead to prices which are not competitive in the global market
2. Since the industry is highly fragmented for large number of products in this panel, consolidation is the need of the hour to ascertain that scale is achieved in order to compete successfully
3. Unfavourable duty structure for import of several raw materials is leading to uncompetitive prices in several product groups

Recommendations for member organizations:

In order to cater to swiftly changing requirements the world over and to further strengthen its global position, the Indian exporters could focus on the following facets:

Organic chemicals:

1. Production of aromatic products like benzene and xylene is driven by large petrochemical players. Capacity of p-xylene is expected to nearly double in India and benzene is likely to remain surplus in the country. This provides for large opportunities for exporters to tap newer markets and improve market share in existing markets
2. PTA is used primarily for polyester manufacture globally. Scale and use of suitable technology is of essence in a commoditized product like PTA. Setting up world scale plants in PCPIRs across the nation could be targeted by petrochemical players
3. Indian companies could also explore starch derivatives such as fructose and others for exports since there is ample feedstock available for producing starch
4. Cellulosic chemistry could be one of the focus areas for exports as well given the significant cellulosic raw materials available in the country
5. India is competitive in acetic acid derivatives and should continue to focus on exporting these products, especially to countries with large market size

Inorganic chemicals:

1. High demand from tyres, rubber goods and plastics is expected to drive the global carbon black market or manufacturing Carbon black. Some of the emerging trends directly influencing dynamics of the industry include the shift towards more specialized grades from commodity ones and increasing usage as a pigment in lightweight auto-

parts to improve conductivity. Upgrading product grades is thus key for Indian exporters of carbon black
2. Manufacturers and exporters of calcium carbonate could focus on value selling of better products (imported grade raw material) to players in PVC, polyolefin and toothpastes
3. It is critical for inorganic chemical producers to maximize backward integration in their business models. This will ensure consistent and reliable supplies of raw materials on one hand and on the other it will make them more competitive for exports

Agrochemicals:

1. Globally shift towards herbicides has been happening at a rapid pace and Indian companies could focus on developing herbicide formulations for export markets
2. Due to high level of consolidation in agrochemicals globally, contract manufacturing could be explored by Indian companies going forward
3. Indian agrochemical producers should relook at their product portfolio and focus on moving away from red and yellow tag products as demand of these will continue to drop in coming years across the globe
4. Green chemistry practices can provide significant advantages to the producers and positioning of their products globally. Initiatives towards adoption of green chemistry processes could be explored
5. Indian exporters need to maximize the production of products coming off patent in the next several years as this will be a major driver for their exports

Recommendations for the Government:

Support from the Government is also essential for Indian manufacturers to successfully compete in the international market to boost Indian exports and turn "Make in India" a success in this segment of the industry. There are several bottlenecks which hamper the exports. To strengthen the exports from the country in this panel, following are some suggestions:

1. Though CHEMEXCIL items are re-instated under EU GSP but organic and inorganic chemicals are not. A push towards inclusion of Organic and Inorganic chemicals under the EU GSP benefit for 2017-19 is required
2. While Indian companies have the updated formulation technologies and knowledge for value added end-product manufacturing, they don't have access to the raw materials which needs to be imported. There is a need to allow free import of active ingredients (without the need for registration) under advance authorization scheme which will boost exports of value added pesticide formulated products
3. Support for Data Development (Reimbursement of 50% data generation expenses): Agrochemical products needs to be registered and approved in the importing country before it can be exported commercially. This process is long and time consuming and very expensive. Presently the GOI is offering 50% re-

imbursement on the cost of registrations so obtained overseas. However, even before attempting to register any product overseas, many countries are insisting on original studies/data on the toxicity, chemistry etc. of the product as a part of the dossier. Such data needs to be generated by each exporter on their own from internationally reputed (GLP certified) labs in India or overseas. This is a very expensive process and many a times prevents Indian companies from entering many countries. While it's possible to develop this data, it's very expensive and sometimes even more expensive than the cost of registration in some countries and becomes unviable. Govt. support in this regard would spur the Indian MSME companies to invest in data and enter more countries which presently they are not able to.

4. There is a need to differentiate the Focus Market Scheme (FMS) rates for the agrochemical industry and increase the exports benefit to Indian manufacturers to compete effectively with China in the international market
5. GST Council has proposed measures for exports, but these measures need to be implemented fast and refunds need to be processed quickly for smooth cash flows. Most MSMEs export through the merchant exporters and account for ~40% of India's exports. It has a cascading effect down the line if merchant exporters are not competitive. There is a need for faster refunds in GST to ensure adequate liquidity with the manufacturers and exporters to remain competitive in the market
6. Post-GST, the utility of MEIS has been reduced as it can be used only for BCD. It cannot be used for paying IGST. There is a need to re-align the incentives under GST, so that manufacturer and merchant exporters fund flows are not impacted.
7. Natural Gas is not covered in GST and is going to be subjected to VAT (up to 15%). Since, end-product is chargeable to GST and natural gas gets charged under VAT, input credit is not available against the GST liability on the related end-product. As a long-term resolution, there is a need to include of natural gas under GST or reduce the VAT charged on Natural gas to reduce the tax burden on manufacturers
8. Availability of power and fuel is quite inadequate & erratic and the cost is very high. Besides, the electricity duty incurred on power is non-refundable which adds up to the cost. So, input taxes on electricity should be made refundable. Further, there is a need to ensure steady availability of fuel and electricity to the manufacturers
9. MOECF issued a notification concerning change in product mix etc. Product change is possible provided all CETPs comply with the discharge norms and get approval from the state's technical committee. Other issues like closure of units, installation of online monitoring system, waste disposal, etc. are already highlighted to the Ministry & awaits resolution. Installation & up-gradation of CETPs to latest environmental standards will enable the manufacturers to improve their product portfolio and undertake development of more value-added products

10. OFAC sanctions are a major hindrance to exports, which restricts Indian exporters from doing business with these countries even though some them are in MEIS list. We can have some bank arrangements to transact in INR with them

In addition to above, to further strengthen the exports we recommend the following:

- **Set 1:**
  - ✓ Member organizations could set up local offices in Brazil and the Netherlands, since they are key export markets for India
  - ✓ Engage with customers in these countries on product development to understand trends and changing product requirements
- **Set 2:**
  - ✓ These are markets which are currently underpenetrated by India but offer huge export opportunity. Members should thus actively participate through CHEMEXCIL initiatives in Germany, China, USA and Japan and establish an identity.
  - ✓ Engage with customers on frequent basis on product developments, develop relationships through frequent visits
  - ✓ New market development team can be formed to focus on changing market dynamics in the US, Europe and China
  - ✓ Engage with consultants / research agents to assess market capabilities in the US, Western Europe and China and prepare strategies to penetrate these untapped markets

- **Set 3:**
  - ✓ Sustain export share of existing products and invest in R&D domestically for product development to cater to fast changing requirements in the emerging Asian economies, Spain, Italy and the UK.
  - ✓ Identify opportunities to cross-sell allied products in these counties
- **Set 4:**
  - ✓ These being smaller markets, operate through distributor
  - ✓ Engage with CHEMEXCIL to identify and tap high growth markets in this cluster.

Recommendations for CHEMEXCIL:

In order to promote export of products, CHEMEXCIL may focus on following aspects:

- **Overall:**
  - ✓ In the next two years, focus could be on Set 2 to further strengthen the exports in large markets with low Indian presence

- ✓ Continue to maintain the strong position in Set 1 markets.
- ✓ Establish contacts with the prospective buyers to generate their interest in the Indian chemical products
- ✓ Sponsor trade delegation, study teams and sales teams to various market abroad
- ✓ Organize Workshops/Seminars on various trade and policy related issues
- ✓ Disseminate trade information and intelligence to the member exporters on a quarterly basis
- ✓ Liaise with the Government of India on all procedural and policy matters relevant to the chemical export trade
- ✓ Liaise with import promotion and commercial agencies abroad for the benefit of chemical exporters
- ✓ Technical barriers to trade (TBTs) are increasing day by day. China has come up with China NCSN (New Chemical Substance Notification) which is similar to EU REACH. To comply with these TBTs, provide member organizations an able platform to voice concerns related to compliance with EU REACH/ China NCSN registrations and ensure that their issues are addressed.
- ✓ Facilitate short term training courses on International Marketing
- ✓ Relook at export strategy every two years to factor in changing global scenario

➢ **Set 1: (Larger Market – Higher Export Share of India)**

(For the list of countries, refer to the Individual panel analysis)

- ✓ Closely monitor product import trends in these countries and ensure that India is not slipping away from its dominant position
- ✓ Share these findings with member organizations
- ✓ Build a repository of requirements to set up offices in these countries. These can be shared with member organizations as per their need. This will facilitate faster entry into these countries by member organizations.
- ✓ Ensure the presence of India pavilion in all relevant industry exhibitions such as that of cosmetics, agrochemicals, natural products, coatings and dyes and colorants.

➢ **Set 2: (Larger Market – Lower Export Share of India)**

(For the list of countries, refer to the Individual panel analysis)

- ✓ Associate with export promotion council (EPC) of respective countries to share information about local manufacturers. This needs to be the key focus area for CHEMEXCIL for next few years
- ✓ Bring in delegations from these countries to inform them about domestic manufacturing, product portfolio, compliance adherences etc.
- ✓ Prepare a panel-wise list of prospective customers in the countries belonging to this cluster

- ✓ Arrange trade shows, road shows with member organizations for the promotion of Indian products
- ✓ Arrange 'Reverse Buyer-Seller meets' in India itself for importers to get a glimpse of product portfolio and manufacturing operations in India
- ✓ Participate in events such as European Organic Chemistry Congress in the EU countries to showcase Indian product offerings

➢ **Set 3: (Smaller Market – Higher Export Share of India)**

(For the list of countries, refer to the Individual panel analysis)

- ✓ With a stronghold established in the countries falling under this cluster, participate for trade fairs / arrange reverse buyer seller meets to display a large product portfolio especially newer products which can be sold to the existing customers and thus further penetrate these markets through cross-selling
- ✓ Engage with EPC's of respective countries falling in this cluster to identify their local manufacturers, their feedstock requirement and analyse the same to understand product diversification opportunities
- ✓ To increase the penetration in these countries through effort-light means, adopt digital promotion/ e-engagement techniques like webinars etc. to interact with counterparts
- ✓ Liaison with government, take pre-emptive measures in cases where govt. regulations/ policies/ trade decisions have an impact on India's export to these cluster countries

➢ **Set 4: (Smaller Market – Lower Export Share of India)**

(For the list of countries, refer to the Individual panel analysis)

- ✓ Identify country clusters where multiple countries can be tapped through negotiations with trade organizations
- ✓ To tap relatively smaller market in this cluster, adopt effort-light promotional model which will include creating and sharing product related videos, arranging webinars for real-time interactions with EPCs and prospective customers in respective countries.
- ✓ Bring in delegations from these countries to inform them about domestic manufacturing, product portfolio, compliance adherences etc.
- ✓ Track panel-wise market growth in these countries, to identify markets which could grow rapidly in next few years

Panel 3

Cosmetics, Toiletries & Essential Oils

VII. Panel 3 – Analysis

Following product categories are classified under this panel for the analysis of India's export.

HS Code	Description
3402	Organic surface-active agents (other than soap), surface-active preparations, washing preparations (including auxiliary washing preparations) and cleaning preparations, whether or not containing soap, other than those of heading 3401
2526	Natural steatite, whether or not roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape; talc
3823	Industrial monocarboxylic fatty acids; acid oils from refining; industrial fatty alcohols
3401	Soap; organic surface-active products and preparations for use as soap, in the form of bars, cakes, moulded pieces or shapes, whether or not containing soap; organic surface active products and preparations for washing the skin, in the form of liquid or cream and put up for retail sale, whether or not containing soap; paper, wadding, felt and nonwovens, impregnated, coated or covered with soap or detergent
1516	Animal or vegetable fats and oils and their fractions, partly or wholly hydrogenated, inter-esterified, re-esterified or eladlnised, whether or not refined, but not further prepared
2915	Saturated acyclic monocarboxylic acids and their anhydrides, halides, peroxides and peroxyacids; their halogenated, sulphonated, nitrated or nitrosated derivatives
3301	Essential oils (terpeneless or not), including concretes and absolutes; resinoids; extracted oleoresins; concentrates of essential oils in fats, in fixed oils, in waxes or the like, obtained by enfleurage or maceration; terpenic by-products of the deterpenation of essential oils; aqueous distillates and aqueous solutions of essential oils
3302	Mixtures of odoriferous substances and mixtures (including alcoholic solutions) with a basis of one or more of these substances, of a kind used as raw materials in industry; other preparations based on odoriferous substances, of a kind used for the manufacture of beverages
1518	Animal or vegetable fats and oils and their fractions, boiled, oxidised, dehydrated, sulphurised, blown, polymerised by heat in vacuum or in inert gas or otherwise chemically modified, excluding those of heading 1516; inedible mixtures or preparations of animal or vegetable fats or oils of this chapter, not elsewhere specified or included
3809	Finishing agents, dye carriers to accelerate the dyeing or fixing of dye-stuffs and other products and preparations (for example, dressings and mordants), of a kind used in the textile, paper, leather or like industries, not elsewhere specified or included
3305	Preparations for use on the hair
3304	Beauty or make-up preparations and preparations for the care of the skin (other than medicaments), including sunscreen or suntan preparations; manicure or pedicure preparations

Table 34: Panel 3 - India's Exports: Product Category Descriptions

A. India's Exports (Volume Trend Analysis) – Panel 3

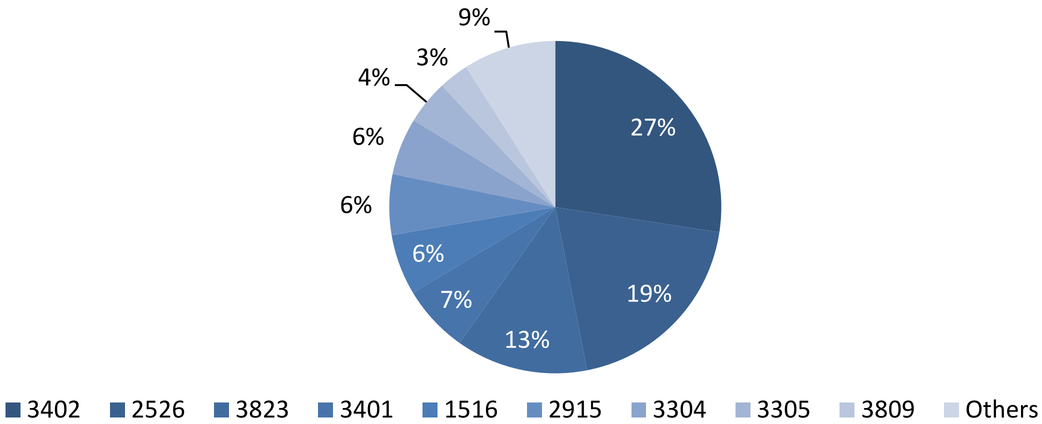
a) India's Exports: By Product Category

This panel consists of two groups with total 19 product categories. Group 1 – Cosmetics and Toiletries includes 18 product categories whereas group 2 – Essential Oils includes 3 product categories, with an overlap of two product categories. In group 1, 10 product categories (3402, 2526, 3823, 3401, 1516, 2915, 3304 and 3305) contribute 90%, whereas in group 2, product categories 3301 and 3302 contribute nearly 100% of the total exports by volume in their respective groups. The following table shows a brief snapshot of this panel with contribution from key product categories, key products and key export markets for India.

Sr. No.	Product Categories	Key Products	% volume share in Product Category Export	Key Export Markets for India
Group 1 – Cosmetics and Toiletries				
1.	3402	Sodium Lauryl Sulphate	49%	Bangladesh, Sri Lanka, Saudi Arabia, USA and UAE
		Non-Ionic W/N For Retail Sale	20%	
		Washing & Cleaning Preparations	10%	
2.	2526	Natural Steatite Crushed/Powder	100%	Indonesia, UAE, Nigeria, Spain, Thailand and Bangladesh
3.	3823	Monocarboxylic Fatty Acid	85%	Indonesia, UAE, Nigeria, Spain Thailand and Bangladesh
		Stearic Acid	10%	
4.	3401	Toilet Soaps	40%	UAE, Nepal, Ethiopia, Singapore, USA, Iran and UK
		Soap in other forms	31%	
		Medicated soaps	12%	
5.	1516	Hydrogenated Castor Oil	100%	Netherlands, Japan, USA, Belgium, Italy and Turkey
6.	2915	HCO Fatty Acid	83%	Netherlands, USA, Belgium, Malaysia, Germany and Thailand
Group 2 – Essential Oils				
1.	3301	Mint Oil	58%	USA, China, Singapore, Germany and France
		Peppermint Oil	18%	
		Essential Oil of Geranium	5%	
2.	3302	Synthetic Perfumery Compounds	49%	Indonesia , Bangladesh, Nigeria, UAE, Sri Lanka and Iran
		Flavouring Essence used in Food	22%	
		Mix. Of Aromatic Chemicals	21%	

Table 35: Panel 3 - Key Product Category Details

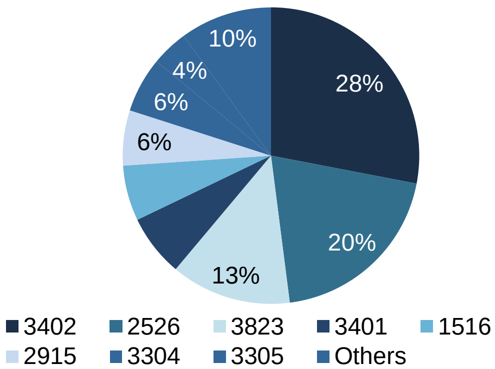
In FY16, India exported 712,802 MT of products under this panel registering 3% volume growth over FY15.



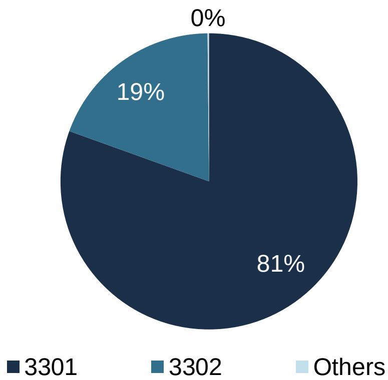
Total Volume Exports (Panel 3)
712,802 MT

Figure 28: Panel 3: India's Top Product Categories as per Volume Contribution

In Group 1, India exported 696,586 MT of products in FY16 registering a 4% volume growth over FY15. In Group 2, India exported 16,216 MT of products in FY16 registering a 22% volume decline over FY15.



Total Volume Exports (Cosmetics & Toiletries)
696,586 MT



Total Volume Exports (Essential Oils)
16,216 MT

Figure 29: Panel 3: India's Top Group Wise Product Categories as per Volume Contribution

Within Group 1 products categories 3823 has seen a significant jump (66% increases) in export volume over the last two financial years. Overall, essential oil products saw a slump due to decreasing exports of product category 3301 (32% decline over 2 years).

Row Labels	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14- 15 Growth	FY 15- 16 Growth	FY 14- 16 Growth
3402	2,29,318	1,93,333	1,94,732		-16%	1%	-15%
2526	1,26,662	1,23,797	1,38,608		-2%	12%	9%
3823	54,850	81,064	91,298		48%	13%	66%
3401	34,761	47,009	46,972		35%	0%	0%
1516	38,311	39,635	42,061		3%	6%	10%
2915	45,977	42,185	41,874		-8%	-1%	-9%
3304	41,600	36,934	39,401		-11%	-5%	-11%
3305	26,356	27,767	30,576		5%	16%	5%

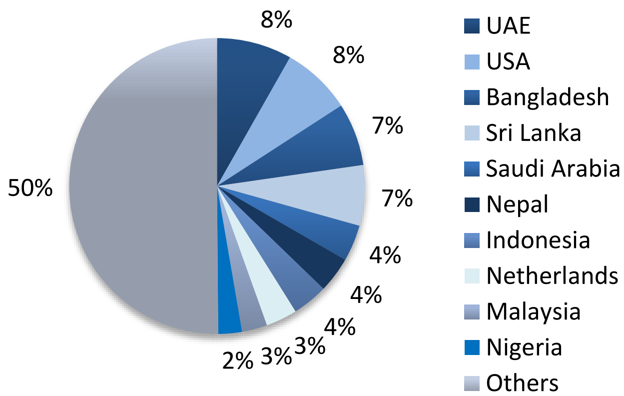
Table 36: Panel 3: India's Exports: Top Product Category Trend - Group 1

Row Labels	FY14 Quantity(MT)	FY15 Quantity(MT)	FY16 Quantity(MT)	Volume Trend (FY14-16)	FY 14- 15 Growth	FY 15- 16 Growth	FY 14- 16 Growth
3301	19,292	17,961	13,056		-7%	-27%	-32%
3302	2,406	2,882	3,136		20%	9%	30%

Table 37: Panel 3: India's Exports: Top Product Category Trend - Group 2

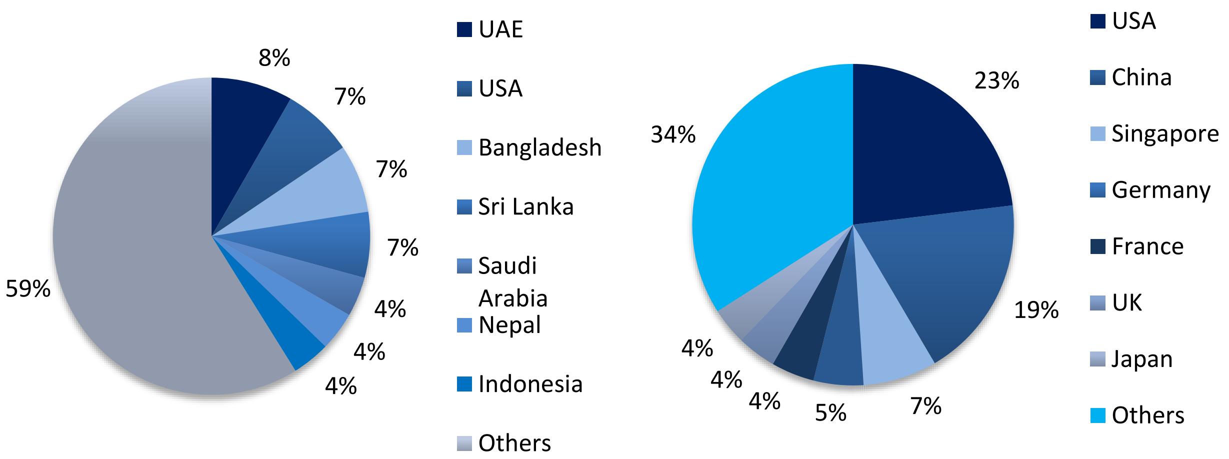
b) *India's Exports: By Importing Country*

In FY16, India exported 712,802 MT of products under this panel registering 3% volume growth over FY15. As shown in following figure, 10 countries contribute more than 49.5% of India's export under this panel. In this panel, group 1 comprises 98% of the total Indian exports, are majorly imported by UAE, USA and Bangladesh while leading countries importing essential oils are USA, China and Singapore.



Total Indian Exports Volume (Panel 3)
712,802 MT

Figure 30: Panel 3: India's Exports: Overall Top Importing Countries (By Volume)



Total Volume Exports (Cosmetics & Toiletries)
696,586 MT

Total Volume Exports (Essential Oil)
16,216 MT

Figure 31: Panel 3: India's Exports: Group-wise Top Importing Countries (By Volume)

In Group 1, Top 10 export destinations form 90% of India's export under this group. Share of top 10 countries in India's export has increased from 49.4% to 50% from FY15 to FY16. In

Group 2, Top 10 export destinations form 90% of India's export under this group. Share of top 10 countries in India's export has increased from 79% to 90% from FY15 to FY16.

Country	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14-15 Growth	FY 15-16 Growth	FY 15-16 Growth
UAE	55,913	57,925	58,049		4%	0%	4%
USA	46,947	56,680	50,544		21%	-11%	8%
Bangladesh	53,086	55,340	48,641		4%	-12%	-8%
Sri Lanka	18,746	19,929	46,831		6%	135%	150%
Saudi Arabia	27,813	30,611	28,232		10%	-8%	2%
Nepal	23,700	31,556	27,688		33%	-12%	17%
Indonesia	17,526	22,742	27,085		30%	19%	55%
Netherlands	20,053	20,297	24,115		1%	19%	20%
Malaysia	17,415	19,100	19,490		10%	2%	12%
Nigeria	19,349	16,968	17,962		-12%	6%	-7%

Table 38: Panel 3: India's Exports: Top Importing Country Trend - Group 1

Country	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14-15 Growth	FY 15-16 Growth	FY 14-16 Growth
USA	3,996	5,949	3,737		49%	-37%	-6%
China	7,147	5,418	2,986		-24%	-45%	-58%
Singapore	2,109	993	1,203		-53%	21%	-43%
Germany	1,056	915	812		-13%	-11%	-23%
France	551	565	703		3%	24%	28%
UK	669	711	639		6%	-10%	-5%
Japan	537	697	598		30%	-14%	11%
Uganda	242	403	528		66%	31%	118%
Indonesia	105	358	470		242%	31%	348%
Nigeria	759	509	439		-33%	-14%	-42%

Table 39: Panel 3: India's Exports: Top Importing Country Trend - Group 2

B. Global Imports (Volume Trend Analysis)

In the previous section, the report discussed about the India's export for the panel. This section will highlight the overall global scenario highlighting key product categories and key export markets.

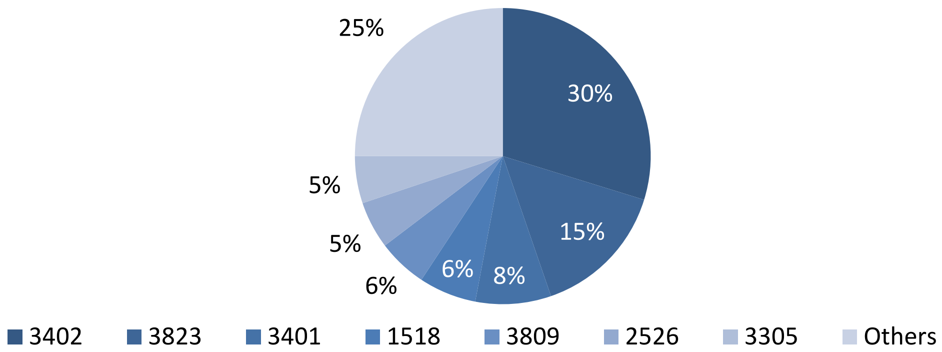
Following product categories are classified under this panel for the analysis of Global Imports

HS Code	Description
1516	Animal or vegetable fats and oils and their fractions, partly or wholly hydrogenated, inter-esterified, re-esterified or eladlnised, whether or not refined, but not further prepared
1518	Animal or vegetable fats and oils and their fractions, boiled, oxidised, dehydrated, sulphurised, blown, polymerised by heat in vacuum or in inert gas or otherwise chemically modified, excluding those of heading 1516; inedible mixtures or preparations of animal or vegetable fats or oils of this chapter, not elsewhere specified or included
2526	Natural steatite, whether or not roughly trimmed or merely cut, by sawing or otherwise, into blocks or slabs of a rectangular (including square) shape; talc
3301	Essential oils (terpeneless or not), including concretes and absolutes; resinoids; extracted oleoresins; concentrates of essential oils in fats, in fixed oils, in waxes or the like, obtained by enfleurage or maceration; terpenic by-products of the deterpenation of essential oils; aqueous distillates and aqueous solutions of essential oils
3304	Beauty or make-up preparations and preparations for the care of the skin (other than medicaments), including sunscreen or suntan preparations; manicure or pedicure preparations
3305	Preparations for use on the hair
3307	Pre-shave, shaving or after-shave preparations, personal deodorants, bath preparations, depilatories and other perfumery, cosmetic or toilet preparations, not elsewhere specified or included, prepared room deodorisers, whether or not perfumed or having disinfectant properties
3401	Soap; organic surface-active products and preparations for use as soap, in the form of bars, cakes, moulded pieces or shapes, whether or not containing soap; organic surface active products and preparations for washing the skin, in the form of liquid or cream and put up for retail sale, whether or not containing soap; paper, wadding, felt and nonwovens, impregnated, coated or covered with soap or detergent
3402	Organic surface-active agents (other than soap), surface-active preparations, washing preparations (including auxiliary washing preparations) and cleaning preparations, whether or not containing soap, other than those of heading 3401
3809	Finishing agents, dye carriers to accelerate the dyeing or fixing of dye-stuffs and other products and preparations (for example, dressings and mordants), of a kind used in the textile, paper, leather or like industries, not elsewhere specified or included
3823	Industrial monocarboxylic fatty acids; acid oils from refining; industrial fatty alcohols

Table 40: Panel 3- Global Imports: Product Category Descriptions

a) *Global Imports: By Product Category*

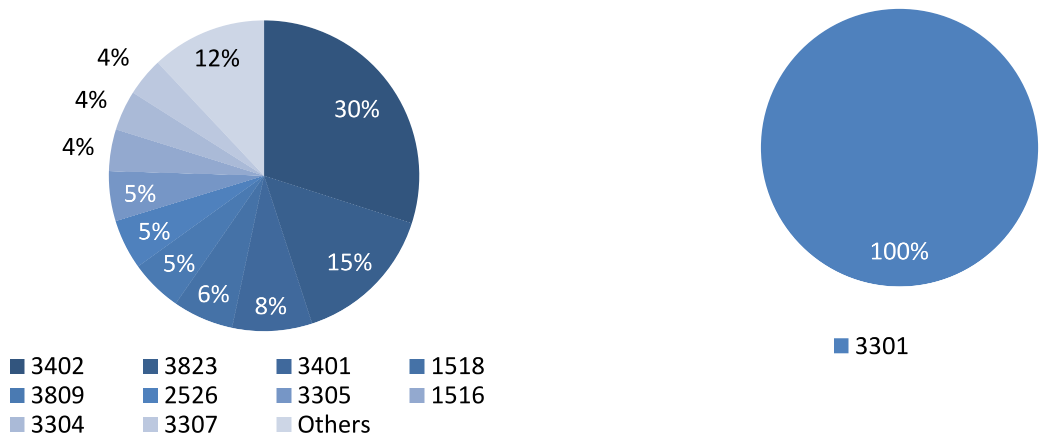
In 2015, global imports under this panel amounted to 53,548,352 MT registering a 1% volume decline over 2014. There are 7 major product categories (3402, 3823, 3401, 1518, 3809, 2526 and 3305) that contribute 75% of the global trade in this panel.



Total Volume Imports (Panel 3)
53,548,352 MT

Figure 32: Panel 3: Global Imports: Overall Top Product Categories (By Volume)

In Group 1, in 2015, global imports amounted to 53,302,586 MT registering 1% volume decline over 2014 with 7 major product categories (3402, 3823, 3401, 1518, 3809, 2526 and 3305) contributing 75% of the global imports. In Group 2, global imports stood at 245,766 MT in 2015 registering a 13% volume growth over 2014. 3301 is the only category that contributes to the entire global imports.



Total Cosmetics & Toiletries Imports
53,302,586 MT

Total Essential Oils Imports
245,766 MT

Figure 33: Panel 3: Global Imports: Group-wise Top Product Categories (By Volume)

Row Labels	CY 13 Quantity (MT)	CY 14 Quantity (MT)	CY 15 Quantity (MT)	Volume Trend (CY13-15)	CY 13-14 Growth	CY 14-15 Growth	CY 13-15 Growth
3402	1,57,05,128	1,60,92,623	1,59,44,897		2%	-1%	2%
3823	73,60,471	80,28,492	80,11,995		9%	0%	9%
3401	43,29,664	45,48,060	44,31,667		5%	-3%	2%
1518	26,11,122	29,79,391	33,68,589		14%	13%	29%
3809	28,49,402	28,63,564	28,97,530		0%	1%	2%
2526	31,43,738	31,66,111	27,70,404		1%	-12%	-12%
3305	29,08,714	28,27,798	27,64,816		-3%	-2%	-5%
1516	22,08,472	22,18,295	23,19,151		0%	5%	5%
3304	22,73,214	22,59,855	22,16,942		-1%	-2%	-2%

Table 41: Panel 3: Global Imports: Top Product Category Trend- Group 1

Row Labels	CY 13 Quantity (MT)	CY 14 Quantity (MT)	CY 15 Quantity (MT)	Volume Trend (CY13-15)	CY 13- 14 Growth	CY 14- 15 Growth	CY 13- 15 Growth
3301	2,31,239	2,17,081	2,45,766		-6%	13%	6%

Table 42: Panel 3: Global Imports: Top Product Category Trend- Group 2

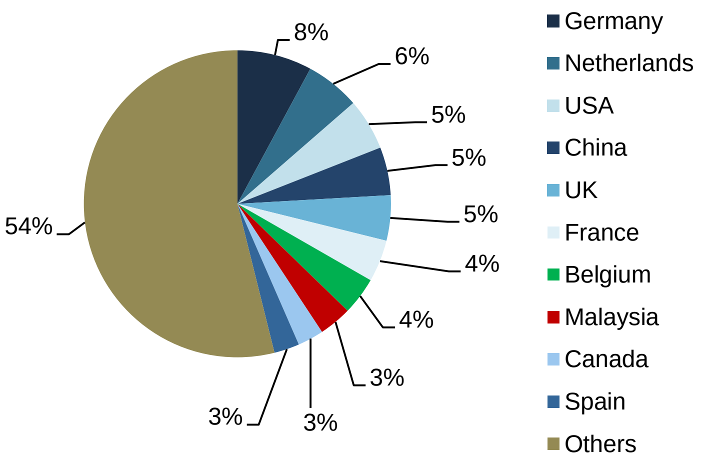
Under group 1, product category 1518 has seen significant growth in last 2 years while global imports of the other products have remained largely flat over the years. For Group 2, global imports have been driven by product category 3301, which registered a 13% increase in volumetric exports in 2015 over 2014.

b) Global Imports: By Importing Countries

After looking into the major product categories that are being globally imported, a further analysis is done for countries that import these products in large volumes.

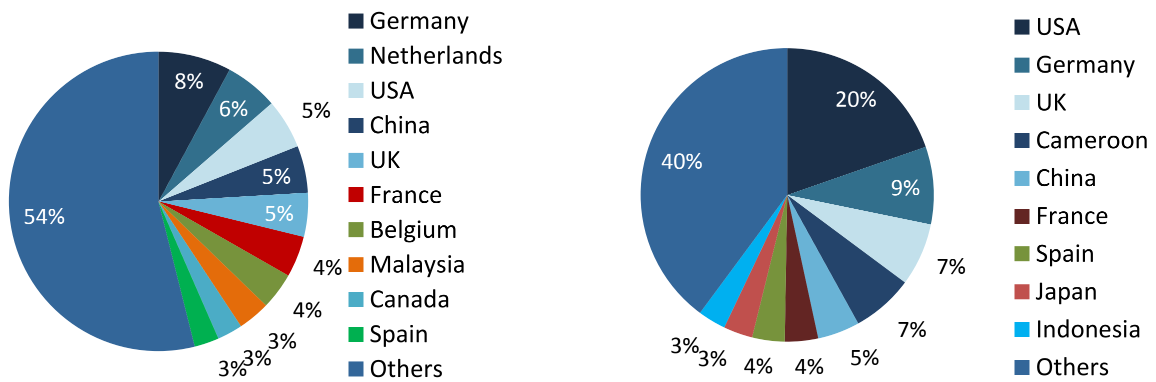
As shown in figure 7, 10 countries contribute to 46% of global imports under this panel.

Globally, major importers of Group 1 are Germany, Netherlands and USA while major importers of Group 2 are USA, Germany and UK.



Total Imports
53,548,352 MT

Figure 34: Panel 3: Global Imports: Overall Top Product Categories (By Volume)



Total Cosmetics and Toiletries Imports
53,302,586 MT

Total Essential Oils Imports
245,766 MT

Figure 35: Panel 3: Global Imports: Group-wise Top Product Categories (By Volume)

Country	CY13 Quantity (MT)	CY14 Quantity (MT)	CY15 Quantity (MT)	Volume Trend (CY13-15)	CY 13-14 Growth	CY 14-15 Growth	CY 13-15 Growth
Germany	4,253,431	4,100,312	4,205,290		-4%	3%	-1%
Netherlands	3,063,235	3,351,066	3,069,974		9%	-8%	0%
USA	2,634,801	2,636,913	2,865,109		0%	9%	9%
China	2,618,726	2,899,355	2,704,417		11%	-7%	3%
UK	2,355,935	2,319,120	2,544,561		-2%	10%	8%
France	2,305,036	2,284,329	2,364,787		-1%	4%	3%
Belgium	2,011,228	2,137,206	2,124,578		6%	-1%	6%
Malaysia	1,213,372	1,455,124	1,849,978		20%	27%	52%
Canada	1,705,887	1,539,964	1,462,580		-10%	-5%	-14%
Spain	1,309,593	1,361,660	1,420,040		4%	4%	8%

Table 43: Panel 3: Global Imports: Top Importing Country Trend - Group 1

Country	CY13 Quantity (MT)	CY14 Quantity (MT)	CY15 Quantity (MT)	Volume Trend (CY13-15)	CY 13-14 Growth	CY 14-15 Growth	CY 13-15 Growth
USA	45,964	45,862	48,528		0%	6%	6%
Germany	19,350	21,281	21,069		10%	-1%	9%
UK	14,775	15,859	17,131		7%	8%	16%
Cameroon	74	67	16,742		-10%	25074%	22627%
China	14,109	12,073	11,486		-14%	-5%	-19%
France	8,596	9,191	9,036		7%	-2%	5%
Spain	6,655	6,390	8,839		-4%	38%	33%
Japan	12,520	8,314	7,929		-34%	-5%	-37%
Indonesia	7,559	7,619	7,581		1%	-1%	0%
Canada	7,070	8,680	6,929		23%	-20%	-2%

Table 44: Panel 3: Global Imports: Top Importing Country Trend - Group 2

As shown in table 43, in group 1, a sharp increase in imports in Malaysia was seen and this can be attributed to the growing demand from FMCG companies in the country. As shown in table 44, in group 2, a sharp increase in imports in Cameroon was seen in 2015, with Spain registering strong imports as well. However, imports of essential oils in Japan saw a decline over the last two years.

C. Strategic Insights

a) *Country Prioritization*

In the previous sections, India's export and global imports were analyzed for this panel. The objective of this section is to prioritize top 20 countries/ export markets. Country prioritization takes into consideration 199 countries across the world. This includes all the major export markets for India as well as top global importers. In order to prioritize top 20 markets for India, following parameters were taken into consideration:

1. Global import share of the country
2. Import Trend
3. Ease of Trading across borders
4. Trade Agreements of India with the country
5. Imports from India
6. TSMG's experience and feedback from CHEMEXCIL members

All the countries are scored on a scale of 5 for the first five parameters. The weighted average of 5 parameters is considered to come up with a cumulative score for a country.

1. **Size of the market:** The size (value) of the country imports is compared with the global imports for the panel and its percentage share is calculated to arrive at the relative size of the market.
2. **Market Trend:** Volume growth is considered to calculate the market trend for all countries over 2013 to 2015. Volume growth is considered for the calculation as it is not linked to fluctuations of crude oil prices and hence more accurately demonstrates the import requirement/trend of the country.
3. **Ease of Trading across borders:** Ease of trading score is calculated across four parameters mentioned below

Import			
Time		Cost	
Documentary compliance (hours)	Border compliance (hours)	Documentary compliance (US$)	Border compliance (US$)

Table 45: Parameters evaluated for Ease of trading across border

World bank's "Ease of doing business" report has a section on 'Ease of trading across borders which measures the time and cost (excluding tariffs) associated with three sets of procedures — documentary compliance, border compliance and domestic transport—within the overall process of exporting or importing a shipment of goods across borders.

4. **Trade Agreements of India with the country:** PTA, FTA, CEPA, CECA[4] etc. have considerable bearing on the trade between two countries and gives competitive edge to the exporting country over other countries and hence is one of the key factors considered in the prioritization.
5. **India's exports to the country:** For a 360 degree evaluation, we have considered India's export to the country as fifth parameter to account for the current trade relations with the country irrespective of the share of that country in global imports

Each country was rated on above 5 parameters and cumulative score was calculated. Countries were then ranked on the basis of this score to arrive at top 20 countries to be considered for export of this panel. TSMG Experience and Feedback for CHEMEXCIL member's was also incorporated in the prioritization process. Based on the methodology, top 20 countries which India should consider for export of this panel are shown in this table:

High	**Medium**	**Low**

Sr. No.	Country	Import Share	Import Trend	Ease of Trading	Trade Agreements	Imports from India	Score
1	USA						4.2
2	Germany						4.0
3	China						3.4
4	Singapore						3.4
5	United Kingdom						3.2
6	France						3.2
7	Netherlands						3.2
8	Spain						3.2
9	Japan						3.0
10	UAE						3.0
11	Belgium						2.8
12	Italy						2.8
13	Canada						2.4
14	Mexico						2.4
15	Saudi Arabia						2.4
16	Malaysia						2.4
17	Hong Kong						2.2
18	Russia						2.2
19	Thailand						2.2
20	Bangladesh						

Table 46: Country Prioritization Summary

[4] PTA: Preferential Trade Agreement, FTA: Free Trade Agreement, CEPA: Comprehensive Economic Partnership Agreement, CECA: Comprehensive Economic Cooperation Agreement

- USA emerges as the most attractive country for export of Panel 3 products despite no concrete trade agreements with India. USA scores highly on the volume of imports of Panel 3 products, the growth of imports in the country as well as the sheer size of the imports from India. Germany is next in the priority list with a large import share, despite a slight drop in the overall imports of Panel 3 products in the country.
- Out of these 20 countries, India current has trade agreements in effect with China, Malaysia, Japan, Singapore and Thailand, whereas trade agreements with the EU, Canada, Saudi Arabia and Russia are under negotiation.
- Saudi and Malaysia have a relatively smaller market size but their imports have increased strongly in the last 2 years. On account of increasing trend, it bags a spot in top 20.
- China is currently one of the largest export markets for India, driven by geographical proximity as well as the on-going shutdown of Chinese plants.
- India has considerable export share (>3% of country's import) in UAE and Saudi Arabia.
- India is yet to establish a strong presence in 6 countries, namely, Belgium, Italy, Canada, Mexico, Hong Kong and Russia.

b) *India's competitive position as an exporter*

For each of the top 20 prioritized countries for Panel 3, the following table details information on top 5 exporters along with their share to that country. This table has been constructed taking into consideration the top 10 products from Panel 3 which account for 90% of the global import share by value.

It can be clearly noticed that there are many country-product category combinations where India is not in top 5 and offers significant export opportunity.

1. USA		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	4034	France	19%	China	17%	Canada	16%	Italy	8%	UK	6%
3402	1137	Mexico	26%	Canada	21%	Germany	11%	China	7%	Japan	6%
3302	2623	Ireland	89%	France	3%	Canada	2%	Germany	1%	UK	1%
3303	2092	France	58%	Italy	11%	UK	8%	Spain	6%	Switzerland	4%
3305	1175	Mexico	32%	Canada	26%	Italy	8%	Germany	6%	Israel	5%
3307	740	Canada	24%	China	23%	Mexico	20%	France	6%	Spain	5%
3401	821	Canada	40%	China	20%	UK	9%	Mexico	8%	France	4%
3823	576	Malaysia	46%	Indonesia	20%	South Africa	8%	Netherlands	6%	India	6%
3306	432	Mexico	43%	Ireland	17%	China	15%	Dom. Rep	5%	Canada	5%
3301	988	India	15%	Argentina	12%	France	10%	Mexico	8%	China	8%
2. Germany		**Top Exporting Countries**									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	2085	France	26%	Switzerland	15%	USA	9%	Italy	9%	Poland	6%
3402	2007	Netherlands	20%	France	14%	Belgium	13%	Poland	6%	USA	6%
3302	1319	Ireland	37%	Switzerland	24%	France	14%	USA	7%	Netherlands	6%
3303	1570	France	51%	UK	18%	Italy	6%	Switzerland	5%	USA	5%
3305	623	France	24%	USA	10%	Italy	9%	Slovenia	8%	Belgium	8%
3307	626	UK	16%	Italy	15%	France	15%	Netherlands	9%	Poland	8%
3401	476	Poland	16%	UK	13%	Switzerland	13%	Netherlands	9%	Israel	8%
3823	534	Netherlands	35%	Belgium	14%	Philippines	9%	Malaysia	6%	France	6%
3306	282	Poland	22%	Italy	14%	Slovakia	11%	UK	10%	Switzerland	7%
3301	323	Brazil	27%	France	11%	India	10%	USA	10%	China	9%
3. China		**Top Exporting Countries**									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	3068	France	30%	Rep of Korea	23%	Japan	16%	USA	11%	UK	5%
3402	1234	USA	25%	Germany	17%	Japan	16%	Rep of Korea	7%	Other Asia*	6%
3302	437	USA	19%	Hong Kong	14%	Singapore	12%	Thailand	10%	Other Asia*	7%
3303	186	France	68%	Italy	12%	USA	11%	UK	4%	Spain	1%
3305	238	Japan	31%	Rep of Korea	23%	France	10%	Thailand	10%	USA	8%
3307	247	USA	37%	Japan	18%	France	10%	Rep of Korea	6%	Other Asia*	4%
3401	179	Indonesia	26%	Rep of Korea	18%	Japan	12%	Malaysia	7%	USA	7%
3823	918	Indonesia	56%	Malaysia	27%	Thailand	4%	South Africa	3%	Philippines	2%
3306	108	Thailand	27%	Japan	18%	Rep of Korea	16%	USA	13%	China	4%
3301	229	USA	29%	India	26%	Argentina	7%	Singapore	4%	UK	4%
4. Singapore		**Top Exporting Countries**									

Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	1421	France	40%	USA	16%	Japan	10%	China	6%	UK	4%
3402	230	USA	25%	Malaysia	17%	China	8%	Germany	7%	Norway	6%
3302	119	Switzerland	15%	USA	14%	Ireland	13%	Japan	9%	Germany	8%
3303	640	France	50%	USA	14%	Italy	11%	UK	10%	Spain	5%
3305	135	USA	21%	Thailand	19%	Japan	7%	Malaysia	7%	India	5%
3307	187	Hong Kong	18%	USA	11%	UK	10%	Malaysia	8%	France	8%
3401	123	Malaysia	12%	Indonesia	11%	USA	10%	Germany	9%	Saudi Arabia	8%
3823	475	Indonesia	47%	Malaysia	42%	USA	5%	Netherlands	2%	Thailand	2%
3306	39	Thailand	15%	China	12%	Mexico	12%	Hong Kong	11%	Malaysia	10%
3301	133	Indonesia	23%	USA	19%	India	16%	China	10%	Germany	6%
5. UK		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3304	2299	France	21%	USA	20%	Germany	10%	China	8%	Italy	5%
3402	1524	Germany	26%	France	23%	Netherlands	11%	Belgium	9%	Poland	6%
3302	1023	Ireland	51%	France	12%	Germany	12%	Netherlands	11%	USA	5%
3303	1115	France	37%	Germany	13%	USA	13%	Spain	9%	Netherlands	6%
3305	696	Germany	20%	France	19%	USA	19%	Italy	7%	Poland	6%
3307	697	Germany	18%	China	13%	Italy	11%	France	10%	Netherlands	8%
3401	475	Germany	26%	China	14%	France	8%	USA	7%	Belgium	5%
3823	226	Germany	23%	Netherlands	23%	Malaysia	13%	Italy	13%	Belgium	7%
3306	272	Poland	21%	Italy	18%	Germany	18%	China	6%	Ireland	5%
3301	326	USA	21%	France	13%	China	9%	India	7%	Mexico	6%
6. France		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3304	1319	Italy	18%	USA	18%	Germany	15%	Switzerland	6%	Areas, nes	6%
3402	1438	Germany	24%	Belgium	17%	Italy	14%	UK	10%	Netherlands	9%
3302	2185	Switzerland	38%	Ireland	32%	Germany	10%	Netherlands	7%	Spain	4%
3303	439	France	27%	USA	20%	Areas, nes	15%	Italy	10%	Spain	9%
3305	369	Spain	19%	Germany	19%	Belgium	17%	Italy	15%	Poland	7%
3307	439	UK	20%	Italy	14%	Germany	12%	Spain	8%	Netherlands	6%
3401	393	Italy	27%	Germany	27%	UK	7%	Poland	7%	Belgium	5%
3823	261	Netherlands	35%	Germany	25%	Belgium	19%	Spain	3%	Italy	3%
3306	168	Germany	27%	Poland	15%	UK	13%	Slovakia	11%	Italy	10%
3301	380	India	10%	Indonesia	7%	Italy	7%	China	7%	Spain	6%
7. Netherlands		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3304	799	Belgium	27%	Germany	23%	USA	16%	France	9%	UK	6%
3402	970	Belgium	31%	Germany	30%	USA	11%	Italy	6%	UK	5%
3302	348	Ireland	32%	Germany	23%	France	18%	USA	7%	Belgium	6%
3303	663	France	26%	Belgium	18%	Germany	11%	UK	9%	Spain	9%
3305	344	Belgium	33%	USA	17%	Germany	14%	UK	8%	Poland	6%
3307	436	Germany	23%	Belgium	21%	UK	17%	Italy	8%	Spain	4%
3401	232	Germany	43%	Belgium	16%	UK	8%	USA	6%	Italy	6%
3823	716	Malaysia	36%	Indonesia	24%	Germany	9%	USA	8%	UK	8%
3306	160	Belgium	38%	Germany	19%	USA	12%	France	9%	UK	8%
3301	91	France	22%	Germany	19%	USA	11%	India	7%	Indonesia	6%

8. Spain		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	815	France	37%	Germany	19%	Italy	12%	UK	6%	USA	5%
3402	535	Germany	25%	Italy	17%	UK	12%	France	11%	Belgium	9%
3302	808	Ireland	51%	Germany	14%	France	12%	Netherlands	8%	UK	5%
3303	666	France	62%	Germany	11%	Italy	7%	Netherlands	6%	Portugal	2%
3305	323	France	23%	Italy	19%	Germany	17%	USA	11%	Belgium	7%
3307	258	Italy	19%	Germany	15%	UK	14%	France	13%	Poland	9%
3401	161	Germany	27%	Italy	21%	France	10%	Netherlands	9%	UK	7%
3823	247	Indonesia	34%	Germany	17%	Malaysia	14%	Netherlands	12%	Belgium	10%
3306	105	Germany	24%	Poland	20%	France	13%	Italy	10%	UK	8%
3301	137	Indonesia	22%	China	16%	France	12%	India	8%	Brazil	7%

9. Japan		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	1067	France	33%	USA	20%	Rep of Korea	8%	China	7%	UK	7%
3402	362	USA	25%	China	16%	Rep of Korea	12%	Germany	12%	UK	6%
3302	326	Ireland	34%	Singapore	14%	China	14%	Uruguay	12%	USA	8%
3303	205	France	60%	Italy	16%	USA	11%	UK	4%	Germany	2%
3305	429	Thailand	58%	USA	11%	China	8%	Viet Nam	6%	France	5%
3307	455	China	37%	USA	27%	Thailand	12%	Rep of Korea	6%	Other Asia*	3%
3401	259	China	24%	USA	18%	Thailand	14%	Malaysia	13%	France	8%
3823	251	Malaysia	40%	UK	11%	Indonesia	9%	India	7%	South Africa	6%
3306	162	Ireland	51%	Thailand	23%	USA	9%	China	4%	Other Asia*	4%
3301	156	USA	37%	India	11%	France	9%	Brazil	6%	Thailand	5%

10. UAE		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	877	France	17%	USA	13%	India	12%	Germany	11%	Italy	7%
3402	488	Saudi Arabia	41%	Turkey	17%	USA	8%	Germany	6%	UK	3%
3302	272	Ireland	22%	France	17%	Free Zones	11%	Spain	10%	Switzerland	10%
3303	568	France	44%	Italy	13%	UK	10%	USA	10%	Switzerland	8%
3305	260	Saudi Arabia	20%	USA	8%	India	7%	Germany	7%	Italy	6%
3307	359	UK	21%	France	14%	Germany	13%	Philippines	6%	USA	6%
3401	255	Malaysia	20%	Indonesia	10%	Saudi Arabia	10%	India	7%	Germany	7%
3823	11	India	54%	France	9%	Malaysia	8%	Italy	5%	UK	5%
3306	154	Egypt	30%	Saudi Arabia	12%	USA	10%	UK	9%	Slovakia	8%
3301	31	Singapore	25%	India	15%	France	13%	China	10%	Saudi Arabia	5%

11. Belgium		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	1026	UK	21%	France	20%	USA	15%	Netherlands	14%	Italy	9%
3402	1143	Germany	28%	Netherlands	22%	France	17%	UK	8%	USA	7%
3302	280	Ireland	47%	Netherlands	14%	France	11%	Germany	8%	UK	7%
3303	378	France	37%	Netherlands	24%	UK	13%	Poland	8%	Spain	4%
3305	265	Netherlands	30%	France	28%	Germany	25%	Italy	4%	UK	3%
3307	433	UK	30%	Netherlands	26%	France	13%	USA	10%	Germany	9%
3401	183	Netherlands	23%	Germany	21%	France	14%	UK	11%	Italy	9%

3823	255	Germany	48%	Netherlands	28%	South Africa	3%	France	3%	Malaysia	3%
3306	139	Germany	36%	Netherlands	17%	UK	14%	Slovakia	9%	Poland	8%
3301	48	France	17%	Germany	10%	UK	10%	India	10%	Ireland	9%

12. Italy		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	954	France	49%	Germany	17%	China	5%	Spain	4%	Poland	4%
3402	691	Germany	33%	France	14%	Netherlands	14%	Belgium	9%	Spain	8%
3302	684	Ireland	29%	France	27%	Germany	15%	Netherlands	10%	Spain	8%
3303	436	France	60%	Germany	13%	Spain	11%	Netherlands	5%	UK	4%
3305	253	France	33%	Germany	20%	Spain	13%	Poland	11%	Belgium	7%
3307	238	Germany	20%	France	15%	UK	11%	Austria	7%	Spain	7%
3401	169	Germany	37%	France	12%	Slovenia	7%	Spain	5%	UK	5%
3823	215	Germany	40%	Netherlands	22%	Spain	12%	Belgium	9%	UK	5%
3306	151	Germany	33%	Poland	14%	UK	12%	France	11%	Ireland	7%
3301	62	France	34%	Germany	21%	Spain	10%	UK	7%	Austria	5%

13. Canada		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	1344	USA	59%	France	12%	Italy	6%	Germany	4%	China	4%
3402	1285	USA	93%	Italy	1%	Poland	1%	Germany	1%	China	1%
3302	459	USA	86%	UK	9%	Ireland	2%	Italy	1%	France	1%
3303	203	France	39%	USA	37%	Italy	7%	UK	6%	Spain	3%
3305	530	USA	72%	Mexico	9%	Italy	4%	Germany	2%	Canada	2%
3307	376	USA	80%	Mexico	6%	China	4%	France	2%	UK	1%
3401	469	USA	86%	China	4%	UK	2%	France	2%	Mexico	1%
3823	112	USA	66%	Malaysia	17%	India	9%	Germany	4%	UK	1%
3306	264	USA	85%	Mexico	4%	China	4%	Ireland	3%	Israel	2%
3301	118	USA	62%	Brazil	5%	India	5%	France	3%	Mexico	3%

14. Mexico		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	482	USA	43%	France	16%	China	7%	Colombia	5%	Canada	4%
3402	390	USA	73%	Germany	6%	Guatemala	3%	China	2%	Belgium	2%
3302	1501	Ireland	67%	USA	19%	Uruguay	6%	Costa Rica	2%	Colombia	1%
3303	229	France	33%	USA	24%	Spain	15%	UK	9%	Italy	6%
3305	129	USA	51%	Spain	9%	Italy	9%	France	7%	Colombia	6%
3307	176	USA	45%	Argentina	15%	Canada	8%	China	7%	Germany	6%
3401	115	USA	44%	Germany	20%	Canada	8%	Brazil	6%	China	3%
3823	156	USA	51%	Indonesia	17%	Malaysia	14%	Netherlands	4%	India	3%
3306	62	USA	35%	Guatemala	13%	Colombia	11%	Brazil	10%	Spain	10%
3301	87	USA	30%	China	12%	Indonesia	10%	India	8%	France	8%

15. Saudi Arabia		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3304	640	France	18%	Germany	12%	India	10%	Italy	8%	USA	8%
3402	299	USA	16%	Turkey	15%	UK	14%	Germany	8%	UAE	8%
3302	150	Germany	25%	Switzerland	19%	UK	17%	UAE	12%	India	8%
3303	439	France	51%	UAE	12%	USA	7%	UK	6%	Bahrain	5%
3305	316	UAE	24%	Egypt	18%	Germany	14%	France	6%	USA	6%
3307	232	UAE	16%	UK	13%	France	11%	Germany	9%	USA	8%

3401	189	UAE	27%	UK	17%	Bahrain	10%	France	7%	Germany	4%
3823	41	USA	49%	India	18%	Malaysia	10%	Finland	6%	Belgium	5%
3306	90	Egypt	20%	Germany	18%	Italy	12%	Slovakia	11%	UK	8%
3301	86	Spain	25%	Germany	22%	France	13%	India	12%	Switzerland	11%
16. Malaysia		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3304	292	USA	13%	Rep of Korea	13%	France	10%	Japan	8%	Thailand	8%
3402	337	Indonesia	19%	China	13%	Saudi Arabia	12%	Thailand	11%	Singapore	9%
3302	142	Singapore	50%	Hong Kong	7%	USA	7%	Indonesia	5%	China	4%
3303	87	France	28%	Singapore	10%	UK	10%	USA	9%	Indonesia	8%
3305	94	Thailand	49%	Indonesia	10%	Japan	7%	China	6%	USA	4%
3307	109	China	20%	Thailand	16%	USA	13%	Viet Nam	10%	India	5%
3401	104	Indonesia	36%	Thailand	12%	USA	12%	China	7%	Rep of Korea	5%
3823	374	Indonesia	82%	Singapore	6%	India	3%	China	2%	USA	1%
3306	78	China	47%	Thailand	26%	India	7%	Indonesia	7%	UK	4%
3301	19	USA	27%	China	18%	Singapore	14%	Indonesia	10%	India	7%
17. Hong Kong		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3304	2876	Korea	18%	Singapore	14%	Japan	11%	France	10%	China	10%
3402	243	China	51%	Japan	9%	USA	9%	Malaysia	7%	Other Asia*	5%
3302	85	China	22%	Singapore	14%	USA	10%	UK	9%	Hungary	7%
3303	382	Singapore	22%	Italy	20%	France	16%	USA	13%	Netherlands	6%
3305	261	China	35%	Japan	17%	USA	10%	Other Asia*	8%	Rep of Korea	6%
3307	261	China	42%	USA	11%	Rep of Korea	7%	Malaysia	6%	Japan	4%
3401	42	China	45%	USA	10%	Japan	10%	Indonesia	4%	Singapore	4%
3823	1	Sweden	34%	Other Asia*	17%	Japan	12%	Malaysia	10%	Macao SAR	7%
3306	98	Thailand	36%	China	36%	Japan	5%	USA	4%	UK	3%
3301	50	China	51%	USA	31%	Other Asia*	4%	Japan	4%	Singapore	3%
18. Russian Federation		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3304	871	France	27%	Italy	10%	Poland	10%	USA	10%	Germany	9%
3402	566	Germany	18%	UK	11%	USA	9%	France	9%	Czechia	6%
3302	440	Germany	27%	Ireland	18%	France	18%	Switzerland	13%	UK	6%
3303	459	France	56%	Italy	11%	UK	10%	Spain	6%	Poland	4%
3305	340	Romania	20%	Germany	20%	Italy	12%	Belgium	7%	France	6%
3307	349	France	21%	UK	14%	Germany	9%	Poland	9%	Croatia	7%
3401	196	Turkey	21%	Germany	16%	France	9%	Poland	9%	Ukraine	8%
3823	72	Indonesia	19%	Germany	14%	Netherlands	12%	Sweden	10%	India	10%
3306	158	China	41%	Germany	21%	Ireland	10%	Slovakia	8%	USA	6%
3301	12	India	46%	USA	7%	France	6%	Germany	6%	Switzerland	5%
19. Thailand		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3304	635	France	20%	USA	16%	Japan	12%	China	10%	Rep of Korea	9%
3402	346	China	16%	Japan	14%	USA	14%	Singapore	13%	Germany	8%
3302	504	Singapore	48%	USA	8%	Indonesia	7%	Ireland	7%	Japan	5%
3303	91	France	68%	USA	9%	UK	9%	Italy	5%	Switzerland	3%

3305	70	China	20%	Indonesia	18%	Japan	16%	USA	11%	Germany	8%
3307	70	USA	25%	China	17%	Malaysia	9%	Australia	7%	Rep of Korea	6%
3401	76	Indonesia	43%	Malaysia	23%	USA	8%	Viet Nam	5%	Japan	4%
3823	109	Malaysia	55%	Indonesia	26%	Japan	4%	India	4%	USA	2%
3306	37	China	27%	USA	19%	Viet Nam	17%	Malaysia	15%	Ireland	9%
3301	21	China	25%	India	21%	USA	15%	Australia	8%	UK	7%
20. Bangladesh		**Note: Data not available**									

Table 47: Competition Analysis for Prioritized Countries

Note*: * indicates nes i.e. area not elsewhere specified*

Key Highlights:

- India has a much stronger presence as an exporter in 3 out of 20 countries (USA, Canada and certain countries in Asia). India features amongst the top 5 exporters for 4 of the top 10 products to Malaysia.
- India is the largest exporter of product category: essential oils (HS code 3301) to the US and is also one of the top 5 exporters for most of the prioritized European countries.
- India does not feature in the top 5 exporters to any of the prioritized European countries for all the products barring essential oils (HS code: 3301)
- For product category 3402, India does not feature in top 5 for any country listed under top 20.

c) *Country Attractiveness – Panel 3*

Top 20 countries prioritized above have been segregated into 4 categories on the basis of

a. Country's Share in Global Imports

b. India's Exports Share to that Country

Threshold of 2% assumed for a country's total imports to the total imports for all countries. India's export to the respective country has been adjudged as High/Low if it is greater/lower than 0.5 times the country's import share of the total world import.

This categorization of countries is thus based on a dependent parameter where India's export share as High/Low is dependent on the total imports for each country.

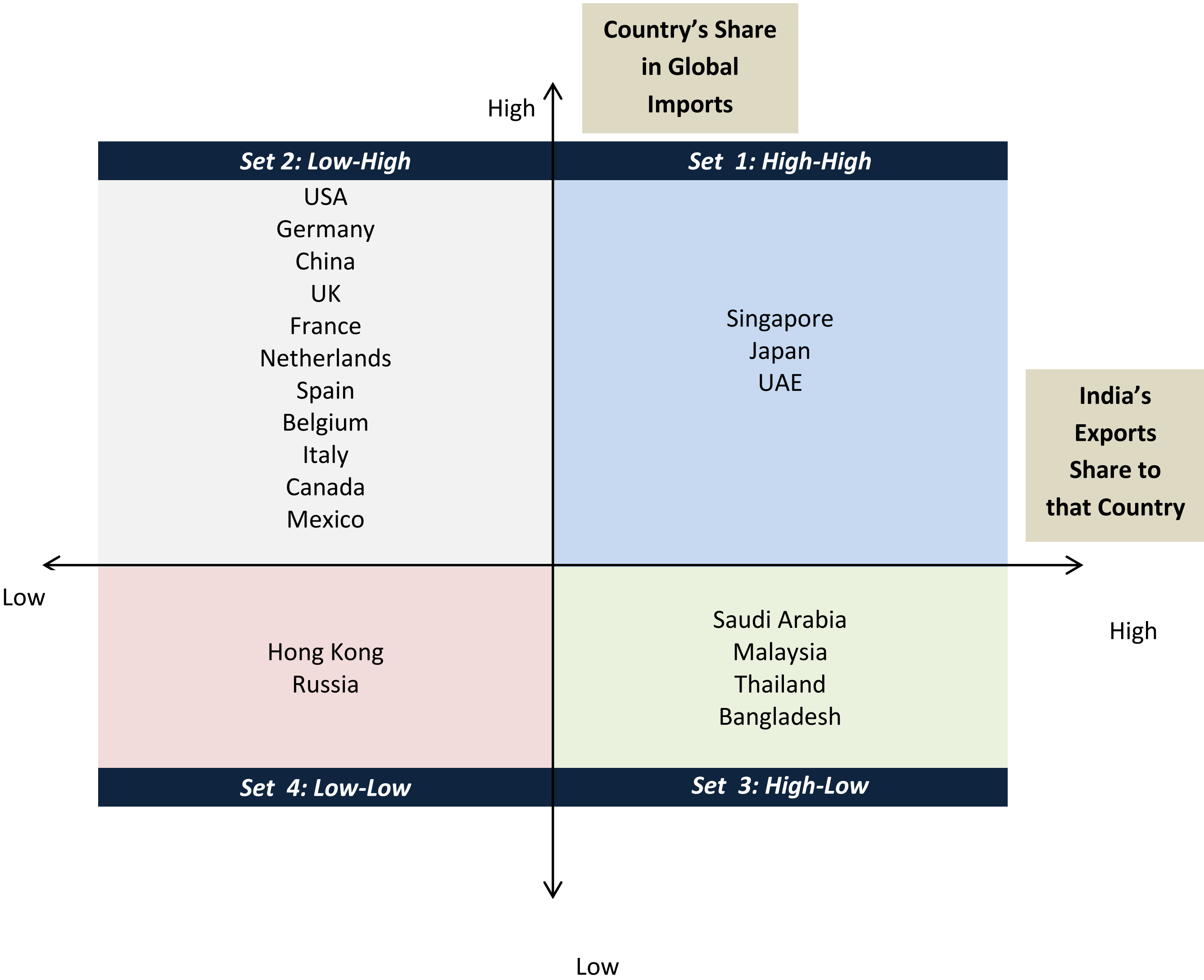


Figure 36: Country Categorization Chart

Set 1: High-High

As per our analysis, Singapore emerges as the top nation in this category. It has a rank of 4 in our Country Prioritization List and stands as a country with rapid growth of imports of Panel 3 products. Singapore scores strongly on market growth and has strong trade relations with India.

It is worthy of note that over the past three years exports of Panel 3 products to Singapore have declined considerably despite the rapidly growing overall imports.

Japan and UAE are the other countries that fall in this category with high import share along with reasonably high import volumes from India. The key takeaway from this list would allude to the fact that Indian exporters have been relatively successful in making inroads into these countries but stand with an opportunity of further penetration, given the large size of the market in the respective countries.

Set 2: Low-High

USA is the top ranked country in this category of countries with high share of global imports of Panel 3 products along with Germany, China, UK and 7 other countries. Focus on this category would imply tapping into export opportunities prevalent in these markets which are currently under-penetrated by India.

Set 3: High-Low

Saudi Arabia is the top ranked country in this category of countries with a reasonably low share of global imports of Panel 3 products, with Malaysia, Thailand and Bangladesh being the other countries in this category.

Based on this analysis, India has a good presence in these countries and with a relatively low share of global imports of Panel 3 products, Indian exporters can look to diversify their product exports into these countries, given the stronghold already established in Panel 3 products.

Set 4: Low-Low

Amongst the top 20 countries, Hong Kong and Russia fall under this cluster.

D. Key Recommendations

The Indian cosmetics and essential oils industry is fast growing and is capable of meeting world requirements with its inherent strengths but faces 3 main bottlenecks:

1. Indian manufacturers speed of new product development and innovation needs to improve considerably as manufacturers globally are focusing on developing new products, provide higher performance products by using different ingredients in cosmetic products
2. Branding is of prime importance for products such as toilet soaps and perfumes. For a large number of India products, they lack a strong brand position in the developed Western countries and hence lose out on competitiveness
3. For flavours and fragrances, high dependence on exports implies high impact of REACH implementation, as a result of which players need to incur additional cost of becoming REACH compliant

Recommendations for member organizations:

In order to strengthen its global position in cosmetics and essential oils, the Indian exporters should consider on the following aspects:

1. Build scale to increase competitiveness in sodium lauryl sulphate and linear alkyl benzene sulphonates to cater to the increasing demand. Strategic acquisitions in select geographies for these product groups could also be considered in order to strengthen their businesses
2. New product launches, customer acquisition, expansion and agreement are the prominent strategies adopted by the market players worldwide and for Indian exporters to be competitive, marketing strategies on these lines for B2C products need to be adopted.
3. India currently has good exports of medicated soaps and other ayurvedic products. Going forward, globally, the market share of natural based products is expected to increase rapidly largely owing to consumer awareness. With India having an inherent strength in resources and know-how of preparing ayurvedic products, the need of the hour is for companies to translate the ancient ayurvedic recipes into modern easy to use formats with superior quality. Product development / proprietary formulations should be the focus for exporters
4. India has attained position of primary and dominant source of mint oil and menthol in the world market, replacing China to a great extent owing to competitive price structure and comparable quality. Because of rising input cost and expensive labour in South China, its cultivation there could presumably shrink further, thereby providing immense opportunities for mint manufacturers in India to expand operations.

5. Mint growers can seek consultations from the Mint Growers Association of India to improve mint yield and crop production by adopting drip irrigation, better harvesting techniques and reducing wastage between the farms and the distillery units
6. For flavours and fragrances, the global market will continue to grow with a shift towards natural products. Indian players have an advantage of natural feedstock availability; however, they must optimize costs, build large scale and invest in product development in order to succeed and build a dominant position
7. Given the predominantly large B2C structure for products such as toilet soaps and perfumeries, in order to succeed as an exporter in developed countries in the West, members could engage with international consultants to get a better understanding of the markets

Recommendations for the Government:

Support from the Government is also essential for Indian manufacturers to successfully compete in the international market to boost Indian exports and turn "Make in India" a success in this segment of the industry. There are several bottlenecks which hamper the exports. To strengthen the exports from the country in this panel, following are some suggestions:

1. The manufacturers of toilet soaps and oleochemicals face duty inversion and request review of import duties on Soap/Surfactants and Oleochemicals, and increase of duty from Zero to 15% as domestic capacity of all these products are in far excess than domestic demand. India should have FTA's with key markets such as EU, Turkey, LAC region, in addition to the FTA's with BRIC's countries, to foster bilateral trade with these markets
2. Most of the vegetable oils in its natural form have a free fatty acid (FFA) content of less than 5%. But the condition of admixing it to at least 20% in the import of industrial oils stipulated for availing the import duty exemption has been unrealistic. Indian Manufacturers also incur substantial cost of process such 20% FFA oils that are not natural but are blended oils containing Fatty Acid distillates or Residues. This not only makes the import non-competitive in the market but also lead to sub-standard quality of finished products. There is a need to remove the condition of minimum FFA content of 20% for import of vegetable oils and allow manufacturers to import oils in the natural form
3. The cost of export finance in India is much higher than the cost of competing countries which adversely impacts competitiveness. Government has launched interest equalization scheme on pre-and post-shipment rupee export credit. However, for Non-MSME exports, scheme is restricted to only 416 tariff lines. Export sector should be treated as a priority sector which obliges banks to lend a specified share to the sector at cheaper rates which will improve competitiveness of the exporters. There is a need to include merchant exports which will improve their

competitiveness. Additionally, more tariff lines need to be included so that large number of MSMEs are covered

4. Post-GST, the utility of Merchandise Exports from India Scheme (MEIS) has been reduced as it can be used only for Basic Custom Duty (BCD). It cannot be used for paying IGST. There is a need to re-align the incentives under GST, so that manufacturer and merchant exporters fund flows are not impacted. There is a need to re-align the export incentives available earlier to the current GST framework
5. Natural Gas is not covered in GST and is going to be subjected to VAT (up to 15%). Since, end-product is chargeable to GST and natural gas gets charged under VAT, input credit is not available against the GST liability on the related end-product. As a long-term resolution, there is a need to include of natural gas under GST or reduce the VAT charged on Natural gas to reduce the tax burden on manufacturers
6. Currently, GST rate on Surfactants is on the higher bracket of 28%. To support the domestic industry's competitiveness, there is a need to reduce it to 18%
7. Gujarat is the chemical hub and has access to 3 key ports - Mundra, Hazira and Nhava Sheva. However, the exporters form the Ankleshwar/ Vapi Chemical area find it challenging to access the Mundra port as there is no train connectivity between ICD Ankleshwar and Mundra. There is a need for this connectivity, which would not only help exporters to access the port of Mundra but also ease the congestion in Nhava Sheva port
8. Improving the connectivity of ports in India by coastal vessel movement and rail connectivity would improve the supply chains of the companies
9. OFAC sanctions are a major hindrance to exports, which restricts Indian exporters from doing business with these countries even though some them are in MEIS list. We can have some bank arrangements to transact in INR with them

In addition to above, to further strengthen the exports we recommend the following:

- **Set 1 (Large markets with strong Indian presence):**
  Singapore, Japan & UAE
  - ✓ Member organizations should aim to open local offices in these countries in order to be closer to customers and provide required technical services
  - ✓ Engage with customers on product development to understand trends and changing product requirements
- **Set 2 (Large markets with weak Indian presence):**
  USA, Germany, China, UK, France, Netherlands, Spain, Belgium, Italy, Canada & Mexico
  - ✓ These are markets which are currently underpenetrated by India but offer huge export opportunity. Members should thus actively participate through CHEMEXCIL initiatives in the US and developed EU countries.
  - ✓ Engage with customers on frequent basis on product developments, develop relationships through frequent visits

- New market development team can be formed to focus on changing market dynamics and requirements in the US and EU
- Engage with consultants / research agents to assess market capabilities in each of these countries and prepare strategies to penetrate these untapped markets

- **Set 3 (Smaller markets with weak Indian presence):**
  Saudi Arabia, Malaysia, Thailand & Bangladesh
  - Sustain export share of existing products and invest in R&D domestically for product development to cater to fast changing requirements in these countries, thereby expanding the product portfolio in these countries
  - Identify opportunities to cross-sell allied products in these counties
- **Set 4 (Smaller markets with strong Indian presence):**
  Hong Kong & Russia
  - These being smaller markets, operate through distributor
  - Engage with CHEMEXCIL to identify and tap high growth markets in this cluster

Recommendations for CHEMEXCIL:

In order to promote export of products, CHEMEXCIL may focus on following aspects:

- **Overall:**
  - In the next two years, focus could be on Set 2 to further strengthen the exports in large markets with low Indian presence
  - Continue to maintain the strong position in Set 1 markets.
  - Establish contacts with the prospective buyers to generate their interest in the Indian chemical products
  - Sponsor trade delegation, study teams and sales teams to various market abroad
  - Organize Workshops/Seminars on various trade and policy related issues
  - Disseminate trade information and intelligence to the member exporters on a quarterly basis
  - Liaise with the Government of India on all procedural and policy matters relevant to the chemical export trade
  - Liaise with import promotion and commercial agencies abroad for the benefit of chemical exporters
  - Technical barriers to trade (TBTs) are increasing day by day. China has come up with China NCSN (New Chemical Substance Notification) which is similar to EU REACH. To comply with these TBTs, provide member organizations an able platform to voice concerns related to compliance with EU REACH/ China NCSN registrations and ensure that their issues are addressed.

- ✓ Facilitate short term training courses on International Marketing
- ✓ Relook at export strategy every two years to factor in changing global scenario

- **Set 1: (Larger Market – Higher Export Share of India)**

  (For the list of countries, refer to the Individual panel analysis)

  - ✓ Closely monitor product import trends in these countries and ensure that India is not slipping away from its dominant position
  - ✓ Share these findings with member organizations
  - ✓ Build a repository of requirements to set up offices in these countries. These can be shared with member organizations as per their need. This will facilitate faster entry into these countries by member organizations.
  - ✓ Ensure the presence of India pavilion in all relevant industry exhibitions such as that of cosmetics, agrochemicals, natural products, coatings and dyes and colorants.

- **Set 2: (Larger Market – Lower Export Share of India)**

  (For the list of countries, refer to the Individual panel analysis)

  - ✓ Associate with export promotion council (EPC) of respective countries to share information about local manufacturers. This needs to be the key focus area for CHEMEXCIL for next few years
  - ✓ Bring in delegations from these countries to inform them about domestic manufacturing, product portfolio, compliance adherences etc.
  - ✓ Prepare a panel-wise list of prospective customers in the countries belonging to this cluster
  - ✓ Arrange trade shows, road shows with member organizations for the promotion of Indian products
  - ✓ Arrange 'Reverse Buyer-Seller meets' in India itself for importers to get a glimpse of product portfolio and manufacturing operations in India
  - ✓ Participate in events such as European Organic Chemistry Congress in the EU countries to showcase Indian product offerings

- **Set 3: (Smaller Market – Higher Export Share of India)**

  (For the list of countries, refer to the Individual panel analysis)

  - ✓ With a stronghold established in the countries falling under this cluster, participate for trade fairs / arrange reverse buyer seller meets to display a large product portfolio especially newer products which can be sold to the existing customers and thus further penetrate these markets through cross-selling
  - ✓ Engage with EPC's of respective countries falling in this cluster to identify their local manufacturers, their feedstock requirement and analyse the same to understand product diversification opportunities

- ✓ To increase the penetration in these countries through effort-light means, adopt digital promotion/ e-engagement techniques like webinars etc. to interact with counterparts
- ✓ Liaison with government, take pre-emptive measures in cases where govt. regulations/ policies/ trade decisions have an impact on India's export to these cluster countries

➢ **Set 4: (Smaller Market – Lower Export Share of India)**

(For the list of countries, refer to the Individual panel analysis)

- ✓ Identify country clusters where multiple countries can be tapped through negotiations with trade organizations
- ✓ To tap relatively smaller market in this cluster, adopt effort-light promotional model which will include creating and sharing product related videos, arranging webinars for real-time interactions with EPCs and prospective customers in respective countries.
- ✓ Bring in delegations from these countries to inform them about domestic manufacturing, product portfolio, compliance adherences etc.
- ✓ Track panel-wise market growth in these countries, to identify markets which could grow rapidly in next few years

Panel 4

Specialty Chemicals & Castor Oil

VIII. Panel 4 – Analysis

Following product categories are classified under this panel for the analysis of India's export.

HS Code	Description
1515	Other fixed vegetable fats and oils (including jojoba oil) and their fractions, whether or not refined, but not chemically modified
3811	Anti-knock preparations, oxidation inhibitors, gum inhibitors, viscosity improvers, anti-corrosive preparations and other prepared additives, for mineral oils (including gasoline) or for other liquids used for the same purposes as mineral oils
3812	Prepared rubber accelerators; compound plasticisers for rubber or plastics, not elsewhere specified or included; anti-oxidising preparations and other compound stabilisers for rubber or plastics
3813	Preparations and charges for fire extinguishers; charged fire-extinguishing grenades
3824	Reaction initiators, reaction accelerators and catalytic preparations, not elsewhere specified or included

Table 48: Panel 4 - India's Exports: Product Category Descriptions

Note: *Analysis is done as per the HS code list provided by the council. However, few HS codes are not included in the list and hence not reflected in the analysis of respective panel.*

For e.g., For Panel 4, HS code 15153090, 15180029, 34029020 etc. are not included.

A. India's Exports (Volume Trend Analysis) – Panel 4

a) India's Exports: By Product Category

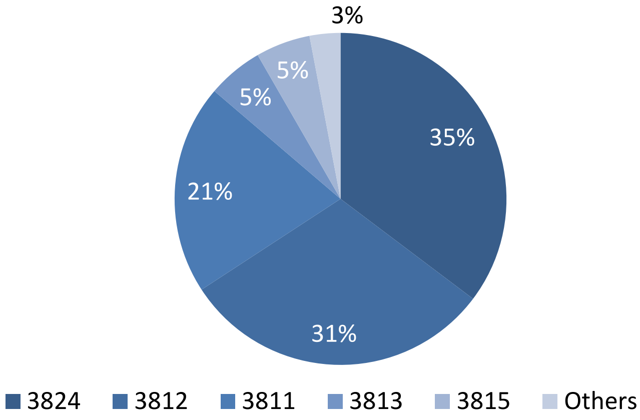
This panel consists of two groups with total 9 product categories. Group 1 – Specialty Chemicals includes 8 product categories whereas Group 2 – Castor Oil includes 1 product category. In Group 1, 5 product categories (3824, 3812, 3811, 3813 and 3815) contribute to 97% of the overall exports.

Following table shows a brief snapshot of this panel with contribution from key product categories, key products and key export markets for India.

Sr. No.	Product Category	Key Products	% volume share in Product Category Export	Key Export Markets for India
Group 1 – Specialty Chemicals				
1.	3824	Binders for Moulds/Cores	55%	Saudi Arabia, Sudan & UAE
		Oil well chemicals	19%	
		Water treatment chemicals	16%	
		Water proof compounds	10%	
2.	3812	Rubber Chemicals	40%	Malaysia, Bangladesh, UAE & Thailand
		Anti-oxidants	23%	
		Rubber Accelerators	21%	
		Plasticisers For Rubber Or Plastics	14%	
		Rubber Softeners	2%	
3.	3811	Additives for lubricating oils (petroleum oils/ oils from bituminous minerals)	67%	Iran, France, Egypt & UAE
		Other additives for lubricating oils	33%	
4.	3813	Charged fire-extinguishing grenades	100%	UAE, Taiwan, Saudi Arabia & Iraq
5.	3815	Other Supported Catalysts	100%	UK, USA, Republic of Korea & Saudi Arabia
Group 2 – Castor Oil				
1.	1515	Castor Oil & Its Fractions (Edible Grade)	100%	Pakistan, Saudi Arabia, Iraq, UAE & Canada

Table 49: Panel 4 - Key Product Category Details

In FY16, India exported 79,841 MT of products under this panel registering 3% volume decline over FY15.

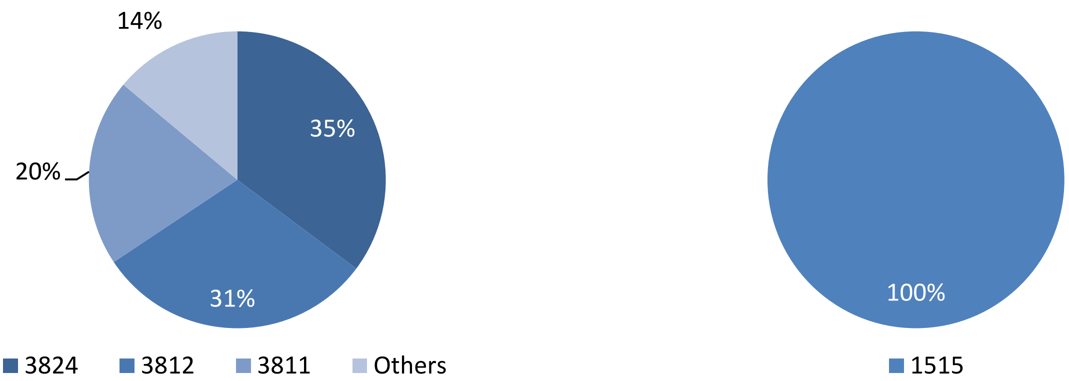


Total Volume Exports (Panel 4)
79,841 MT

Figure 37: Panel 4: India's Exports: Overall Top Product Categories (By Volume)

Figure 1: India's Top Product Categories as per Volume Contribution

In Group 1, India exported 79,627 MT of products in FY16 registering a 3% volume decline over FY15. In Group 2, India exported 214 MT of products in FY16 registering a 162% volume decline over FY15.



Total Volume Exports (Specialty Chemicals)
79,627 MT

Total Volume Exports (Castor Oil)
214 MT

Figure 38: Panel 4: India's Exports: Group-wise Top Product Categories (By Volume)

Within Group 1, product with HS Code 3811 has seen growth in the exports over the last two financial years. HS Codes 3824 and 3812 de-grew over the same period. On the overall level, castor oil products saw a slump due to decreasing exports of product category 1515.

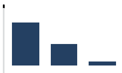
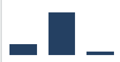
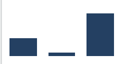
Row Labels	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14- 15 Growth	FY 15- 16 Growth	FY 14- 16 Growth
3824	36,649	32,687	28,168		-11%	-14%	-23%
3812	24,885	26,499	24,364		6%	-8%	-2%
3811	15,889	13,117	16,334		-17%	25%	3%
3813	3,233	2,331	4,334		-28%	34%	86%
3815	2,282	5,344	4,248		89%	51%	51%

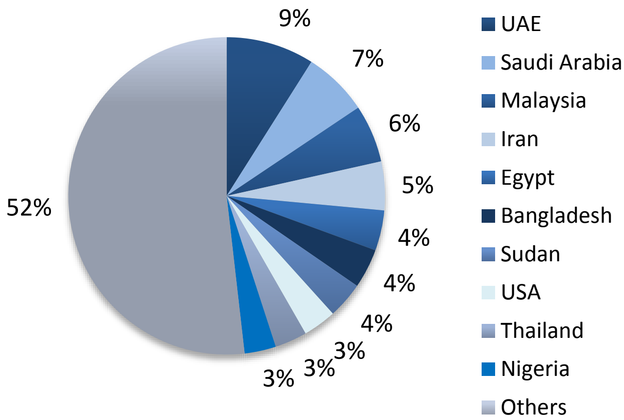
Table 50: Panel 4: India's Exports: Top Product Category Trend - Group 1

Row Labels	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14- 15 Growth	FY 15- 16 Growth	FY 14- 16 Growth
1515	601	82	214		-86%	-162%	-64%

Table 51: Panel 4: India's Exports: Top Product Category Trend - Group 2

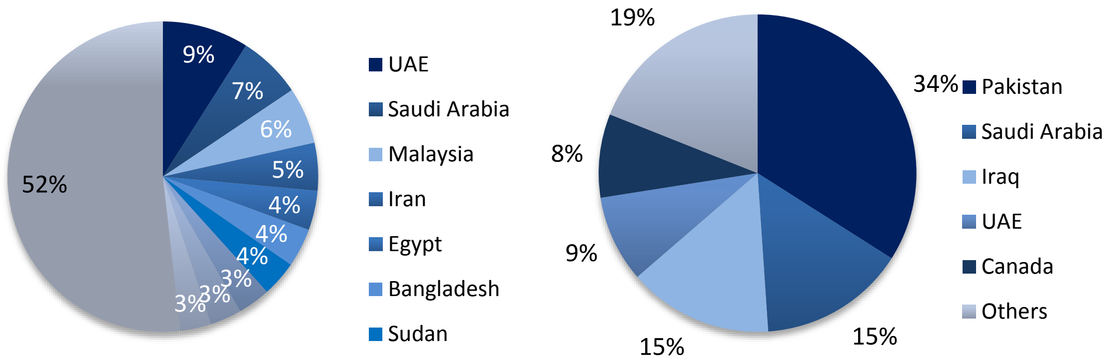
b) *India's Exports: By Importing Country*

In FY16, India exported 79,841 MT of products under this panel registering 3% volume decline over FY15. As shown in following figure, 10 countries contribute more than 48% of India's export under this panel. In this panel, group 1 product categories which comprise 98% of the total exports are majorly imported by UAE, USA and Bangladesh while leading countries importing essential oils are USA, China and Singapore.



Total Indian Exports Volume (Panel 4)
79,841 MT

Figure 39: Panel 4: India's Exports: Overall Top Importing Countries (By Volume)



Total Volume Exports (Specialty Chemicals)
79,627 MT

Total Volume Exports (Castor Oil)
214 MT

Figure 40: Panel 4: India's Exports: Group-wise Top Importing Countries (By Volume)

As shown in the figure, in Group 1, Top 10 export destinations form 48% of India's export under this group. Share of top 10 countries in India's export has increased from 43% to 48% from FY15 to FY16. In Group 2, Top 10 export destinations form 94% of India's export under this group. Share of top 10 countries in India's export has increased from 61% to 94% from FY15 to FY16.

Country	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14-15 Growth	FY 15-16 Growth	FY 15-16 Growth
UAE	7,776	6,711	7,188		-14%	7%	-8%
Saudi Arabia	3,121	3,401	5,271		9%	55%	69%
Malaysia	2,759	3,408	4,721		24%	39%	71%
Iran	3,182	3,165	3,974		-1%	26%	25%
Egypt	3,185	2,411	3,289		-24%	36%	3%
Bangladesh	3,214	3,347	3,222		4%	-4%	0%
Sudan	4,724	2,602	2,970		-45%	14%	-37%
USA	2,266	3,510	2,713		55%	-23%	20%
Thailand	2,836	3,305	2,630		17%	-20%	-7%
Nigeria	8,550	3,670	2,569		-57%	-30%	-70%

Table 52: Panel 4: India's Exports: Top Importing Country Trend - Group 1

Country	FY14 Quantity (MT)	FY15 Quantity (MT)	FY16 Quantity (MT)	Volume Trend (FY14-16)	FY 14-15 Growth	FY 15-16 Growth	FY 14-16 Growth
Pakistan	-	16	73		-	356%	-
Saudi Arabia	-	-	32		-	-	-
Iraq	27	6	32		-78%	427%	17%
UAE	-	0	19		-	4650%	-
Canada	4	3	18		-20%	528%	401%
New Zealand	0	2	11		1724%	584%	12365%
Jordan	17	8	5		-54%	-35%	-70%
USA	108	10	4		-91%	-57%	-96%
Tanzania	0	5	4		1150%	-20%	900%
Singapore	0	0	3		167%	4333%	11722%

Table 53: Panel 4: India's Exports: Top Importing Country Trend - Group 2

B. Global Imports (Volume Trend Analysis)

In the previous section, the report discussed about the India's export for the panel. This section will highlight the overall global scenario highlighting key product categories and key export markets.

Following product categories are classified under this panel for the analysis of Global Imports

HS Code	Description
3811	Anti-Knock Preparations, Oxidation Inhibitors, Gum Inhibitors, Viscosity Improvers, Anti-Corrosive Preparations And Other Prepared Additives, For Mineral Oils (Including Gasoline) Or For Other Liquids Used For The Same Purposes As Mineral Oils
1515	Other Fixed Vegetable Fats And Oils (Including Jojoba Oil) And Their Fractions, Whether Or Not Refined, But Not Chemically Modified
3812	Prepared Rubber Accelerators; Compound Plasticisers For Rubber Or Plastics, Not Elsewhere Specified Or Included; Anti-Oxidising Preparations And Other Compound Stabilisers For Rubber Or Plastics
3820	Anti-freezing preparations and prepared de-icing fluids

Table 54: Panel 4 - Global Imports: Product Category Descriptions

a) Global Imports: By Product Category

In 2015, global imports under this panel amounted to 7,929,370 MT registering a 4% volume decline over 2014. There are 3 major product categories (3811, 1515 & 3812) that contribute to 86% of the global trade in this panel.

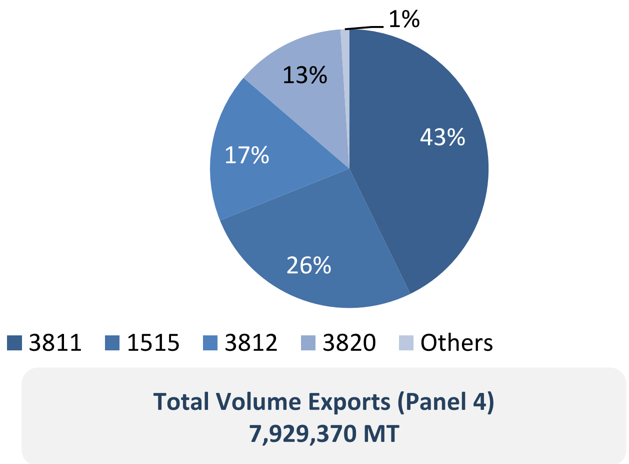
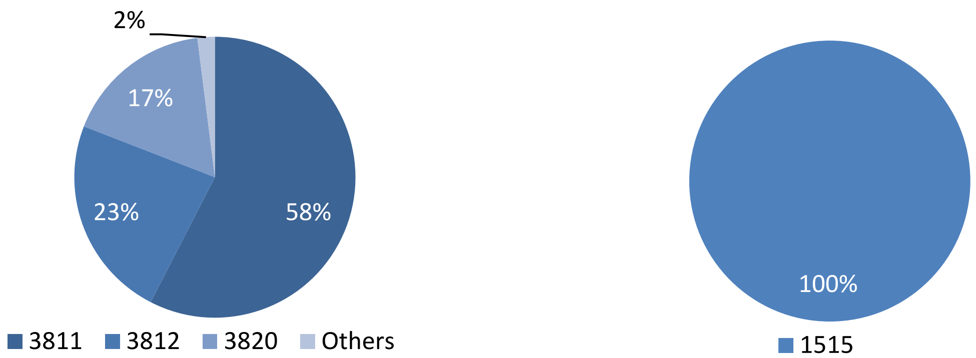


Figure 41: Panel 4: Global Imports: Overall Top Product Categories (By Volume)

In Group 1, global imports amounted to 5,864,230 MT in 2015, registering a 2% volume decline over 2014. 3 major product categories (3811, 3812 & 3820) contributed to 98% of the global imports. In Group 2, global imports stood at 2,065,140 MT in 2015, registering an 8% volume growth over 2014. 1515 is the only category that contributes to global imports.



Total Specialty Chemicals Imports
5,864,230 MT

Total Castor Oil Imports
2,065,140 MT

Figure 42: Panel 4: Global Imports: Group-wise Top Product Categories (By Volume)

Row Labels	CY 13 Quantity (MT)	CY 14 Quantity (MT)	CY 15 Quantity (MT)	Volume Trend (CY13-15)	CY 13- 14 Growth	CY 14- 15 Growth	CY 13- 15 Growth
3811	44,11,013	36,04,360	33,77,251		-18%	-6%	-23%
3812	13,17,779	13,46,342	13,69,766		2%	2%	4%
3820	10,13,280	9,19,247	10,03,581		-9%	9%	-1%

Table 55: Panel 4: Global Imports: Top Product Category Trend- Group 1

Row Labels	CY 13 Quantity (MT)	CY 14 Quantity (MT)	CY 15 Quantity (MT)	Volume Trend (CY13-15)	CY 13- 14 Growth	CY 14- 15 Growth	CY 13- 15 Growth
1515	22,12,546	22,50,549	20,65,140		2%	-8%	-7%

Table 56: Panel 4: Global Imports: Top Product Category Trend- Group 2

Under group 1, product category 3811 has seen significant decline in the last 2 years while global imports of the other products have remained largely flat over the years. For Group 2, a modest decline in global imports was witnessed.

b) *Global Imports: By Importing Countries*

After looking into the major product categories that are being globally imported, a further analysis is done for countries that import these products in large volumes.

As shown in following figure, 10 countries contribute to 48% of global imports under this panel. Globally, major importers of Group 1 are China, Germany and Belgium while major importers of Group 2 are China, USA and the Netherlands.

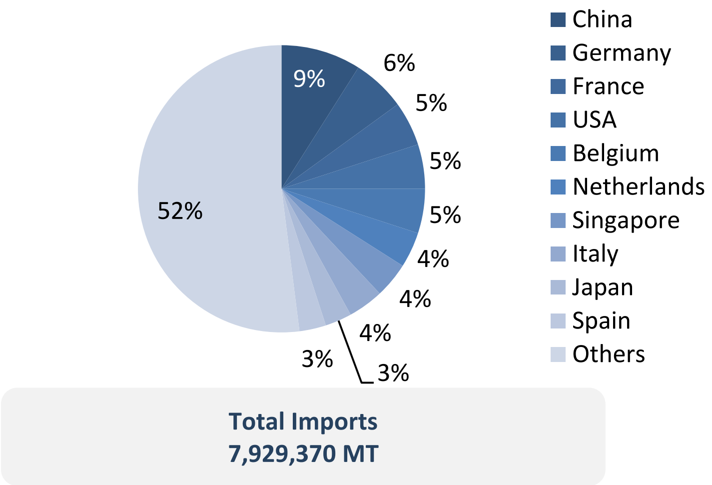


Figure 43: Panel 4: Global Imports: Overall Top Importing Countries (By Volume)

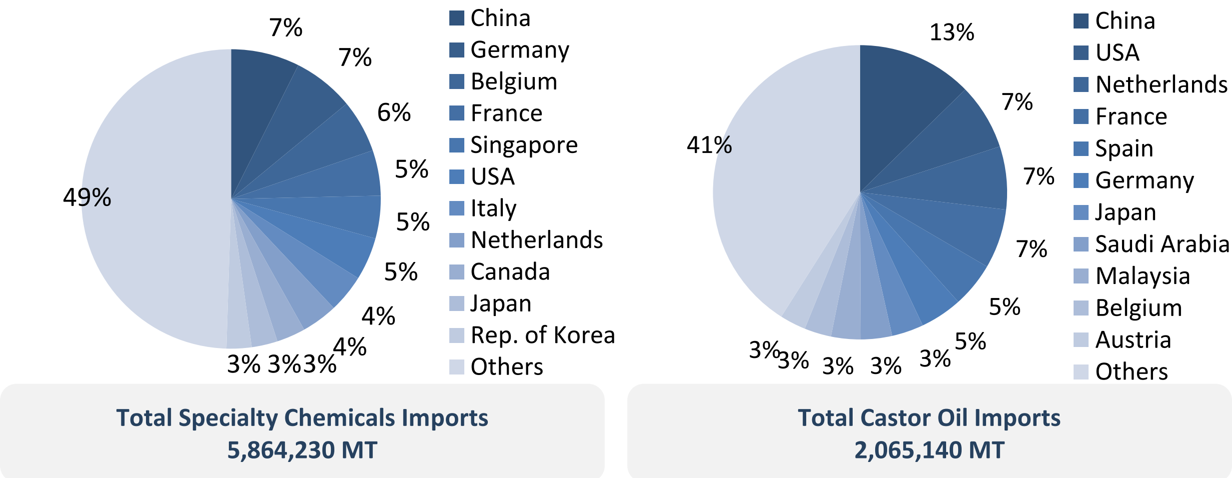


Figure 44: Panel 4: Global Imports: Group-wise Top Importing Countries (By Volume)

As shown in the following table, in Group 1, a sharp decrease in imports in Netherlands and Canada was seen. As shown in subsequent table, in Group 2, a sharp increase in imports in Spain, Japan and Netherlands was seen in 2015.

Country	CY13 Quantity (MT)	CY14 Quantity (MT)	CY15 Quantity (MT)	Volume Trend (CY13-15)	CY 13-14 Growth	CY 14-15 Growth	CY 13-15 Growth
China	4,89,690	4,80,597	4,36,462		-2%	-9%	-11%
Germany	3,58,536	3,51,017	3,87,217		-2%	10%	8%
Belgium	3,17,096	2,87,865	3,33,089		-9%	16%	5%
France	3,00,824	2,72,125	2,89,941		-10%	7%	-4%
Singapore	2,68,321	2,84,571	2,72,421		6%	-4%	2%
USA	2,57,000	2,59,213	2,69,837		1%	4%	5%
Italy	2,19,444	2,31,437	2,42,553		5%	5%	11%
Netherlands	3,85,762	2,44,308	2,30,904		-37%	-5%	-40%
Canada	2,25,987	2,02,254	1,81,057		-11%	-10%	-20%
Japan	1,70,186	1,71,172	1,63,901		1%	-4%	-4%

Table 57: Panel 4: India's Exports: Top Importing Country Trend - Group 1

Country	CY13 Quantity (MT)	CY14 Quantity (MT)	CY15 Quantity (MT)	Volume Trend (CY13-15)	CY 13-14 Growth	CY 14-15 Growth	CY 13-15 Growth
China	255,000	196,000	262,000		-23%	34%	3%
USA	133,000	137,000	150,000		3%	9%	13%
Netherlands	137,000	153,000	143,000		12%	-7%	4%
France	139,000	147,000	135,000		6%	-8%	-3%
Spain	52,973	28,066	102,000		-47%	263%	93%
Germany	111,000	119,000	95,588		7%	-20%	-14%
Japan	50,093	54,436	72,278		9%	33%	44%
Saudi Arabia	94,663	95,291	70,969		1%	-26%	-25%
Malaysia	38,282	57,879	66,964		51%	16%	75%
Belgium	41,284	113,000	61,013		174%	-46%	48%

Table 58: Panel 4: India's Exports: Top Importing Country Trend - Group 2

C. Strategic Insights

a) *Country Prioritization*

In the previous sections, India's export and global imports were analysed for this panel. The objective of this section is to prioritize top 20 countries/ export markets.

Country prioritization takes into consideration 199 countries across the world. This includes all the major export markets for India as well as top global importers. In order to prioritize top 20 markets for India, following parameters were taken into consideration:

1. Global import share of the country
2. Import Trend
3. Ease of Trading across borders
4. Trade Agreements of India with the country
5. Imports from India
6. TSMG's experience and feedback from CHEMEXCIL members

All the countries are scored on a scale of 5 for the first five parameters. The weighted average of 5 parameters is considered to come up with a cumulative score for a country.

1. **Size of the market:** The size (value) of the country imports is compared with the global imports for the panel and its percentage share is calculated to arrive at the relative size of the market.
2. **Market Trend:** Volume growth is considered to calculate the market trend for all countries over 2013 to 2015. Volume growth is considered for the calculation as it is not linked to fluctuations of crude oil prices and hence more accurately demonstrates the import requirement/trend of the country.
3. **Ease of Trading across borders:** Ease of trading score is calculated across four parameters mentioned below.

Import			
Time		Cost	
Documentary compliance (hours)	Border compliance (hours)	Documentary compliance (US$)	Border compliance (US$)

Table 59: Parameters evaluated for Ease of trading across border

World bank's "Ease of doing business" report has a section on 'Ease of trading across borders which measures the time and cost (excluding tariffs) associated with three sets of procedures—documentary compliance, border compliance and domestic transport—within the overall process of exporting or importing a shipment of goods across borders.

4. **Trade Agreements of India with the country:** PTA, FTA, CEPA, CECA[5] etc. have considerable bearing on the trade between two countries and gives competitive edge to the exporting country over other countries and hence is one of the key factors considered in the prioritization.
5. **India's exports to the country:** For a 360 degree evaluation, we have considered India's export to the country as fifth parameter to account for the current trade relations with the country irrespective of the share of that country in global imports

Each country was rated on above 5 parameters and cumulative score was calculated. Countries were then ranked on the basis of this score to arrive at top 20 countries to be considered for export of this panel. TSMG Experience and Feedback for CHEMEXCIL member's was also incorporated in the prioritization process. Based on the methodology, top 20 countries which India should consider for export of this panel are shown in table 60:

High	Medium	Low

Sr. No.	Country	Import Share	Import Trend	Ease of Trading	Trade Agreements	Imports from India	Score
1	China	High	Low	Low	High	High	4.2
2	Germany	High	Medium	High	Medium	Low	4.2
3	USA	High	Medium	Medium	Low	High	4.2
4	France	Medium	Low	High	Medium	High	3.4
5	Netherlands	Medium	Low	High	Medium	High	3.4
6	Japan	Medium	Medium	Medium	High	Medium	3.2
7	Thailand	Medium	Medium	Medium	High	Medium	3.2
8	Italy	Medium	Medium	High	Medium	Medium	3.2
9	United Kingdom	Medium	Medium	High	Medium	Medium	3.2
10	Singapore	Medium	Low	Medium	High	Medium	3.0
11	Rep. of Korea	Medium	Medium	Low	High	Medium	3.0
12	Spain	Medium	High	High	Medium	Low	3.0
13	Belgium	Medium	Medium	High	Medium	Low	2.8
14	Malaysia	Low	High	Medium	High	High	2.8
15	Canada	Medium	Low	Medium	Medium	Low	2.4
16	Indonesia	Medium	Low	Low	High	Low	2.4
17	Russia	Medium	Low	Low	Medium	Low	2.2
18	Turkey	Low	Medium	Medium	Medium	Medium	2.0
19	UAE	Low	Low	Low	Medium	Medium	1.6
20	Saudi Arabia	Low	Low	Low	Medium	Medium	1.6

Table 60: Country Prioritization Summary

[5] PTA: Preferential Trade Agreement, FTA: Free Trade Agreement, CEPA: Comprehensive Economic Partnership Agreement, CECA: Comprehensive Economic Cooperation Agreement

- China, Germany and USA emerge as the top three countries for export of Panel 4 products. Owing to the highest global imports of Panel 4 products in China, the country tops the list. India’s imports to China and the US are strong, while the imports to Germany are low.
- Out of these 20 countries, India current has trade agreements in effect with China, Japan, Thailand, Singapore, Korea, Malaysia and Indonesia, whereas no trade agreements with the USA are in place.
- Spain and Malaysia have a relatively smaller market size but their imports have increased strongly in the last 2 years. On account of increasing trend, it bags a spot in the top 20.
- China, USA, France, the Netherlands and Malaysia are currently the largest export markets for India. China and Malaysia score highly in terms of geographical proximity
- India has considerable export share (>10% of country's import) in China, Netherlands and Malaysia.
- India is yet to establish a strong presence in 6 countries, namely, Germany, Spain, Belgium, Canada, Indonesia and Russia.

b) *India's competitive position as an exporter*

For each of the top 20 prioritized countries for Panel 4, the following table details information on top 5 exporters along with their share to that country. This table has been constructed taking into consideration the 5 product categories from Panel 4 which account for 100% of the global import share by value.

It can be clearly noticed that there are many country-product category combinations where India is not in top 5 and offers significant export opportunity.

1. China		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	1,018	Singapore	47.4%	USA	24.2%	Germany	5.8%	Italy	5.4%	Japan	4.5%
3812	483	Other Asia*	24.1%	Japan	14.7%	USA	13.6%	Germany	13.0%	Rep of Korea	8.6%
1515	357	India	80.0%	USA	4.0%	Belgium	2.8%	Turkey	2.3%	Thailand	2.2%
3820	38	Germany	42.9%	Belgium	19.5%	USA	19.5%	Thailand	5.6%	Japan	5.1%
3813	6	USA	34.7%	Germany	19.4%	Other Asia*	16.3%	Japan	7.4%	Sweden	6.1%
2. Germany		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3811	776	France	45.4%	Italy	21.8%	Belgium	13.3%	USA	6.4%	UK	5.6%
3812	371	Italy	23.4%	Switzerland	20.6%	USA	8.9%	Belgium	8.0%	Netherlands	7.6%
1515	202	Belgium	18.2%	India	17.6%	Netherlands	9.4%	Austria	8.8%	Italy	8.3%
3820	83	Belgium	58.6%	Netherlands	15.3%	UK	12.8%	France	3.6%	Poland	2.3%
3813	5	France	49.5%	Belgium	21.1%	USA	8.9%	UK	4.0%	Sweden	3.3%
3.USA		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3811	568	Canada	21.8%	France	18.5%	Italy	15.5%	Mexico	12.6%	UK	8.1%
3812	359	Canada	28.5%	Germany	14.6%	Mexico	14.2%	China	9.8%	Italy	8.1%
1515	398	India	23.6%	Mexico	14.3%	Japan	9.4%	Canada	8.0%	Italy	4.8%
3820	30	Canada	66.1%	Germany	20.1%	UK	4.8%	Japan	2.6%	Belgium	1.5%
3813	4	UK	21.8%	Mexico	21.2%	Spain	20.8%	France	16.8%	Canada	4.4%
4.France		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3811	592	USA	31.2%	Italy	23.7%	Belgium	12.8%	Germany	11.3%	UK	4.1%
3812	130	Germany	44.1%	Italy	14.3%	Netherlands	10.7%	Spain	4.8%	Belgium	4.4%
1515	271	India	33.1%	Netherlands	12.4%	Spain	11.6%	Belgium	8.4%	Germany	6.5%
3820	74	Belgium	63.8%	Germany	12.4%	Spain	7.6%	Netherlands	7.4%	UK	3.6%
3813	8	Israel	26.3%	Italy	20.9%	Germany	15.1%	Spain	13.9%	USA	6.1%
5. Netherlands		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3811	403	France	39.5%	Belgium	15.6%	Germany	14.4%	Italy	7.7%	USA	5.4%
3812	111	Germany	31.8%	USA	24.5%	Belgium	8.2%	UK	5.2%	Estonia	4.8%
1515	218	India	21.6%	Belgium	19.0%	Germany	12.4%	Ghana	8.1%	USA	5.6%
3820	64	Belgium	42.6%	Germany	26.9%	Brazil	16.3%	France	3.6%	UK	2.4%
3813	10	Italy	32.6%	Germany	19.5%	USA	15.7%	Belgium	5.7%	Norway	5.6%

6. Japan		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	473	Singapore	37.3%	USA	36.8%	Italy	7.4%	France	5.0%	Germany	4.1%
3812	112	China	27.6%	USA	16.4%	Germany	9.7%	Switzerland	8.4%	UK	7.8%
1515	164	India	22.1%	China	13.3%	Viet Nam	10.3%	Brazil	7.6%	Rep of Korea	7.4%
3820	4	Germany	57.7%	USA	11.5%	Belgium	8.5%	China	7.1%	UK	5.3%
3813	3	Germany	67.5%	China	15.6%	USA	5.6%	Rep of Korea	4.9%	France	3.5%

7. Thailand		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	234	Singapore	52.2%	USA	22.6%	Japan	6.6%	Belgium	5.2%	Germany	2.4%
3812	190	China	34.0%	Japan	12.8%	USA	10.0%	Malaysia	9.4%	Germany	8.9%
1515	42	India	72.5%	China	6.4%	Belgium	3.3%	Japan	2.8%	USA	1.6%
3820	8	USA	38.5%	Rep of Korea	17.0%	Indonesia	7.8%	Japan	7.5%	China	6.8%
3813	4	USA	40.2%	China	36.1%	Israel	8.9%	Italy	4.3%	UK	2.3%

8. Italy		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	461	France	70.0%	USA	8.2%	Germany	8.2%	Belgium	7.3%	UK	2.3%
3812	150	Germany	51.6%	Netherlands	11.0%	China	6.2%	Belgium	5.8%	Austria	4.2%
1515	96	France	27.3%	India	18.7%	Luxembourg	8.8%	Spain	7.6%	Germany	7.3%
3820	17	Germany	46.0%	Belgium	19.2%	UK	16.5%	France	7.5%	Netherlands	4.2%
3813	7	Germany	35.1%	Spain	30.8%	Sweden	9.7%	France	4.6%	Czechia	3.6%

9. UK		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	169	France	35.6%	Belgium	21.8%	Germany	14.4%	Italy	12.3%	USA	7.7%
3812	101	Germany	45.5%	Italy	13.8%	France	10.0%	Belgium	7.7%	China	7.7%
1515	111	India	19.4%	Germany	19.2%	Netherlands	10.1%	Belgium	9.1%	Mexico	5.0%
3820	52	Belgium	33.6%	Germany	27.3%	Netherlands	26.4%	France	3.5%	China	3.3%
3813	6	USA	38.7%	Germany	16.8%	Spain	15.0%	Netherlands	13.7%	Sweden	6.2%

10. Singapore		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	828	USA	53.6%	France	14.4%	China	9.4%	Italy	4.4%	Belgium	3.3%
3812	43	USA	16.0%	China	14.0%	Japan	12.9%	Indonesia	8.2%	Italy	7.3%
1515	48	Malaysia	43.9%	USA	22.0%	China	7.0%	India	6.2%	Rep of Korea	5.0%
3820	4	Germany	26.9%	USA	19.7%	Belgium	12.8%	China	12.3%	UK	7.3%
3813	7	China	26.4%	USA	25.1%	Germany	9.7%	UK	8.2%	Malaysia	7.1%

11. Rep of Korea		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	514	Singapore	32.7%	USA	27.5%	France	9.6%	Italy	8.3%	Germany	7.5%
3812	143	China	42.2%	USA	15.7%	Germany	10.2%	Italy	7.8%	Malaysia	5.7%
1515	96	Thailand	21.3%	Spain	16.8%	India	11.8%	France	9.1%	USA	8.7%
3820	5	Germany	33.4%	UK	18.4%	USA	13.4%	Belgium	12.8%	China	7.4%
3813	8	China	36.3%	USA	25.8%	Italy	16.7%	Russian Fed.	6.1%	Sweden	5.1%

12. Spain		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share

3811	248	France	48.1%	Italy	20.1%	Germany	11.9%	Belgium	11.0%	UK	3.6%
3812	99	Germany	41.0%	Italy	23.0%	France	7.8%	Netherlands	6.7%	China	4.2%
1515	104	USA	29.9%	UK	16.9%	France	14.8%	Portugal	10.7%	Brazil	6.1%
3820	19	Germany	41.3%	Belgium	40.3%	Netherlands	8.4%	France	4.3%	UK	3.0%
3813	3	Germany	43.9%	Italy	30.6%	France	7.9%	USA	4.5%	India	3.3%

13. Belgium		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	732	France	41.8%	USA	21.6%	Italy	14.7%	UK	6.7%	Germany	5.2%
3812	131	Germany	39.9%	Netherlands	13.3%	USA	10.7%	Rep. of Korea	9.4%	France	7.0%
1515	93	Netherlands	23.9%	Germany	16.8%	France	16.1%	Italy	9.0%	India	8.7%
3820	46	Netherlands	37.4%	UK	19.5%	France	13.7%	Cuba	13.6%	Germany	8.9%
3813	4	France	60.7%	Netherlands	11.7%	Sweden	6.4%	China	5.7%	Luxembourg	4.5%

14. Malaysia		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	176	Singapore	32.1%	USA	25.7%	Germany	11.6%	Philippines	6.8%	Italy	4.0%
3812	84	China	30.9%	Germany	12.3%	Other Asia*	7.6%	Rep of Korea	7.3%	Singapore	6.6%
1515	96	India	30.6%	Ghana	15.1%	Germany	9.4%	Burkina Faso	7.8%	Rep of Korea	5.6%
3820	5	Thailand	34.4%	Indonesia	14.9%	Germany	13.2%	Singapore	8.2%	USA	7.8%
3813	5	China	62.1%	USA	12.6%	UK	8.3%	India	7.6%	France	3.6%

15. Canada		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	378	USA	90.7%	Spain	4.3%	Netherlands	1.5%	UK	0.8%	Germany	0.6%
3812	109	USA	75.2%	China	12.5%	Mexico	4.4%	Rep of Korea	1.8%	Germany	1.6%
1515	88	USA	30.8%	China	18.5%	Mexico	9.4%	India	8.5%	Italy	8.4%
3820	78	USA	96.7%	Turkey	1.1%	Germany	0.9%	Canada	0.4%	China	0.3%
3813	11	USA	80.1%	China	8.1%	UK	4.6%	Spain	3.9%	Sweden	1.3%

16. Indonesia		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	237	USA	42.0%	Singapore	33.5%	Japan	7.5%	India	2.8%	Germany	2.6%
3812	167	China	33.5%	Malaysia	15.7%	Other Asia*	12.2%	Rep of Korea	9.6%	Japan	7.6%
1515	17	Belgium	23.4%	Thailand	13.7%	USA	12.5%	Malaysia	10.4%	France	9.3%
3820	10	Australia	44.1%	USA	15.2%	Singapore	14.4%	Netherlands	7.0%	Thailand	6.9%
3813	6	China	38.7%	USA	18.0%	Australia	10.6%	Japan	10.0%	UK	8.8%

17. Russian Federation		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share
3811	295	Germany	23.5%	USA	20.3%	France	16.5%	Belgium	13.7%	Italy	10.9%
3812	101	Germany	43.8%	China	9.9%	Austria	9.0%	Italy	7.6%	Turkey	7.5%
1515	29	Netherlands	27.7%	India	24.6%	Sweden	15.3%	Italy	4.2%	Ukraine	4.2%
3820	29	Germany	32.1%	Belgium	21.1%	Other Europe	10.7%	Japan	7.0%	USA	4.6%
3813	1	Germany	52.6%	USA	23.4%	Italy	13.2%	Slovenia	5.2%	Thailand	4.0%

18. Turkey		Top Exporting Countries									
Product Category	Imports (USD Mn)	No.1	% Share	No.2	% Share	No.3	% Share	No.4	% Share	No.5	% Share

3811	187	France	43.2%	Belgium	21.9%	Italy	16.7%	Germany	8.7%	UK	3.4%
3812	83	Germany	35.2%	Italy	13.0%	Israel	7.9%	China	7.2%	USA	7.1%
1515	42	Spain	23.0%	USA	20.7%	India	15.9%	Argentina	13.4%	Ukraine	8.6%
3820	15	Germany	44.8%	Belgium	28.5%	UK	12.7%	France	5.5%	Rep of Korea	5.1%
3813	6	Germany	35.2%	Spain	21.7%	China	19.1%	Israel	5.7%	Bulgaria	4.6%
19. UAE		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3811	248	France	24.3%	USA	21.8%	Belgium	11.3%	Singapore	10.6%	Italy	9.6%
3812	63	Saudi Arabia	26.3%	USA	13.5%	India	9.4%	UK	9.4%	Germany	8.9%
1515	76	USA	48.5%	Oman	26.2%	Saudi Arabia	5.1%	India	4.9%	Spain	4.4%
3820	8	USA	29.7%	Belgium	25.4%	Germany	13.5%	Thailand	7.7%	Kuwait	5.5%
3813	12	China	51.0%	USA	14.0%	Spain	8.1%	UK	7.5%	Italy	5.1%
20. Saudi Arabia		**Top Exporting Countries**									
Product Category	**Imports (USD Mn)**	**No.1**	**% Share**	**No.2**	**% Share**	**No.3**	**% Share**	**No.4**	**% Share**	**No.5**	**% Share**
3811	183	France	20.5%	USA	18.9%	Italy	13.0%	Belgium	11.7%	Singapore	10.3%
3812	110	Bahrain	36.3%	USA	9.3%	China	8.7%	Germany	6.5%	Austria	5.5%
1515	94	USA	66.9%	Indonesia	21.4%	Yemen	2.3%	UAE	1.9%	Malaysia	1.9%
3820	4	USA	47.8%	Belgium	23.9%	Thailand	11.6%	Germany	4.2%	UAE	4.1%
3813	18	USA	60.2%	China	22.8%	Sweden	11.8%	India	1.9%	Norway	1.0%

Table 61: Competition Analysis for Prioritized Countries

Note: * indicates nes i.e. area not elsewhere specified

Key Highlights:

- A noticeable aspect in the table above is the fact that India features in the top 5 exporters for castor oil for all the countries barring Spain, Indonesia and Saudi Arabia.
- However, for product category 3811 (Additives for lubricating oils), India is not amongst the 5 exporters to any of the 20 prioritized countries.
- USA is amongst the top 5 exporters for most of the top 5 products for almost all countries, including Asian countries like Saudi Arabia (where it is the top exporter for 3 out of the 5 products) and neighbouring countries like Canada (where it is the top exporter for each of the 5 products).
- India is the number 1 exporter of castor oil to China, US, France, the Netherlands, Japan, Thailand, UK and Malaysia.
- For product categories 3811 and 3820, India does not feature in top 5 for any country listed under top 20.

c) *Country Attractiveness – Panel 4*

Top 20 countries prioritized above have been segregated into 4 categories on the basis of

a. Country's Share in Global Imports

b. India's Exports Share to that Country

Threshold of 3% assumed for a country's total imports to the total imports for all countries. India's export to the respective country has been adjudged as High/Low if it is greater/lower than the country's import share of the total world import.

This categorization of countries is thus based on a dependent parameter where India's export share as High/Low is dependent on the total imports for each country.

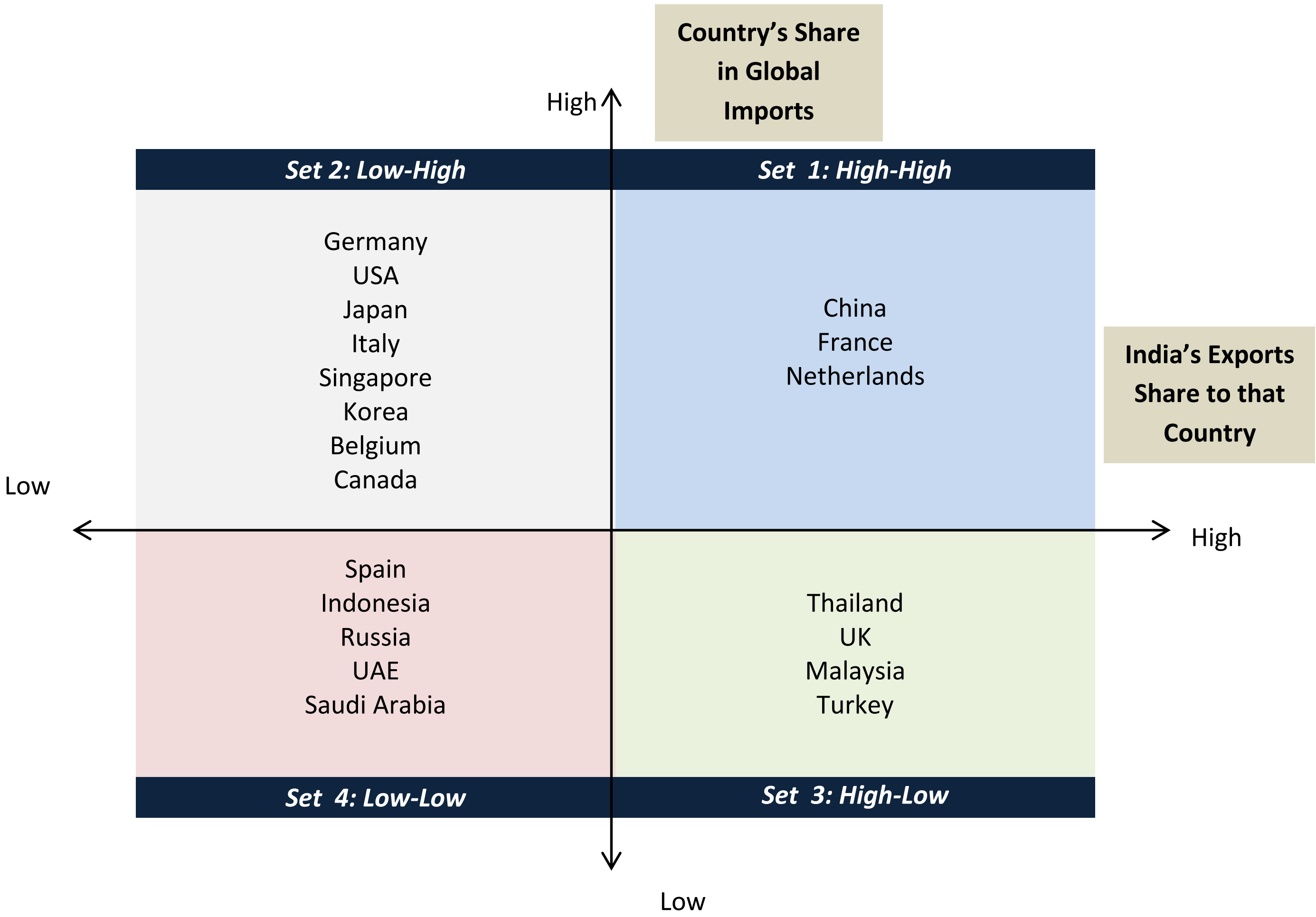


Figure 45: Country Categorization Chart

Set 1: High-High

As per our analysis, China emerges as the top nation in this category and is the top country in the Country Prioritization List as well. France and the Netherlands are the other two countries in this cluster.

It is worthy of note that over the past three years exports of Panel 4 products to these three countries have declined, with the largest drop being witnessed in the Netherlands. The key takeaway from this list would allude to the fact that Indian exporters have been relatively successful in making inroads into these countries but stand with an opportunity of further penetration, given the large size of the market in the respective countries.

Set 2: Low-High

Germany is the top ranked country in this category of countries with high share of global imports of Panel 4 products along with USA, Japan, Italy, Singapore, Korea, Belgium and Canada. Focus on this category would imply tapping into export opportunities prevalent in these markets which are currently under-penetrated by India. Germany is the second largest importer of Panel 4 products across the globe and the Ease of doing business in Germany makes it the highest ranked country in this cluster.

Set 3: High-Low

Thailand is the top ranked country in this category of countries with a reasonably low share of global imports of Panel 4 products, with UK, Malaysia and Turkey being the other countries in this category. Based on this analysis, India has a good presence in these countries and with a relatively low share of global imports of Panel 4 products, Indian exporters can look to diversify their product exports into these countries, given the stronghold already established.

Set 4: Low-Low

Amongst the top 20 countries, 5 countries lie in this cluster with Spain topping the list. These countries have a relatively low import share of Panel 4 products along with India's low contribution to the country's overall imports.

D. Key Recommendations

The growth for Specialty Chemicals and Castor Oil are driven by both domestic consumption and exports. While there are many customer side growth drivers, multiple challenges confront the sector:

1. With large number of small scale players, most of the segments witness a dominant presence of a few global players. Only a handful of Indian players have the capabilities to compete with multinationals on product development and innovation
2. Multiple products in the sector, having matured over time, are already commoditized or are approaching the same. Continuous improvements in product performance is necessary for fighting against product commoditization within the product lifecycle
3. Rapid increase in cost of regulatory compliance is making operations economically unviable for small players and this is likely to intensify further in coming years
4. With a presence of multitude of family-owned companies in India, succession issues are prevalent

<u>Recommendations for member organizations:</u>

In order to cater to swiftly changing requirements the world over and to further strengthen its global position, the Indian exporters could focus on the following aspects:

Specialty Chemicals

1. In order to adhere to the strict REACH regulations in the EU, Indian exporters could critically assess their product portfolio and target specific product groups based on their core competency for EU. Large product portfolio will dilute focus and increase the cost of compliance
2. Severe competition from global companies, specifically Chinese companies has been a bane to Indian exporters of specialty chemicals. In order to tackle this, scale and process efficiencies to reduce costs along with specific niche offerings catering to changing consumption patterns could be the way forward
3. Consolidation within the highly fragmented specialty chemical segments such as construction chemicals, water treatment, plasticizers and rubber chemicals should be seriously considered as it will build economies of scale and possibly improve margins and competitiveness
4. Rubber chemicals and associate products that are manufactured by small enterprises could increase their competitiveness through accelerated adoption of IT and forming a cluster with other rubber products like those in China (e.g. Ningbo ETDZ).

Castor Oil

1. A large number of artificial substitutes of castor oil are now available globally. Manufacturers of castor oil could invest in their R&D and thereby focus on better quality hybrid seeds to offset competition stemming from newer substitutes globally.
2. Currently, it is a common practice for castor seed growers to hoard their products before selling them for want of higher prices and this leads to seasonal variations in prices. Moreover, pricing power does not lie with Indian exporters despite India being the largest producer in the world. Companies could explore a platform based approach to aggregate demand and procure jointly

In addition to above, to further strengthen the exports we recommend the following:

- **Set 1 (Large markets with strong Indian presence)**
  China, France and Netherlands
  - ✓ Member organizations could try to open local offices in these countries
  - ✓ Engage with customers on understanding key requirements, and how they product development to understand trends and changing product requirements

- **Set 2 (Large markets with weak Indian presence)**
  Germany, USA, Japan, Italy, Singapore, Korea, Belgium and Canada
  - ✓ USA imports over 90% of their castor oil consumption. With India being the largest producer, exporters could engage with customers on frequent basis on product developments and develop relationships through frequent visits.
  - ✓ New market development team can be formed to focus on these markets
  - ✓ Engage with consultants / research agents to assess market capabilities in each of these countries and prepare strategies to penetrate these untapped markets

- **Set 3 (Smaller markets with weak Indian presence)**
  Thailand, UK, Malaysia and Turkey
  - ✓ Sustain export share of existing products and invest in R&D domestically for product development to cater to fast changing requirements in these countries, thereby expanding the product portfolio in these countries
  - ✓ Identify opportunities to cross-sell allied products in these counties

- **Set 4 (Smaller markets with strong Indian presence)**
  Spain, Indonesia, Russia, UAE and Saudi Arabia
  - ✓ These being smaller markets, operate through distributor
  - ✓ Engage with CHEMEXCIL to identify & tap high growth markets in this cluster

Recommendations for the Government:

Support from the Government is also essential for Indian manufacturers to successfully compete in the international market to boost Indian exports and turn "Make in India" a success in this segment of the industry. There are several bottlenecks which hamper the exports. To strengthen the exports from the country in this panel, following are some suggestions:

1. Government's continued support is required to develop new caster hybrid breeds for higher yield, shorter growing times, improved oil content and increased mechanization possibilities:

    a) Improve farm productivity through PPP models to establish Centres of Excellence for R&D and training farmers
    b) Focus also on economic value addition on castor farm residues
    c) Improve farm incomes through improving productivity

2. Post-GST, the utility of Merchandise Exports from India Scheme (MEIS) has been reduced as it can be used only for Basic Custom Duty (BCD). It cannot be used for paying IGST. There is a need to re-align the incentives under GST, so that manufacturer and merchant exporters fund flows are not impacted. There is a need to re-align the export incentives available earlier to the current GST framework
3. Natural Gas is not covered in GST and is going to be subjected to VAT. Since, end-product is chargeable to GST and natural gas gets charged under VAT, input credit is not available against the GST liability on the related end-product. As a long-term resolution, there is a need to include of natural gas under GST or reduce the VAT charged on Natural gas to reduce the tax burden on manufacturers
4. India produces over 86% of the world's castor oilseed crop & majority of the castor oil and castor oil derivatives manufactured from castor seeds is exported, leading to a small quantity for domestic sales. At present, rates of tax on castor seed under GST is 5% which is basic raw material of the castor oil industry and is paid by the manufacturers and exporters which leads to working capital blockage. There is a need of reduction of GST rate for castor seed from 5% to 0% to improve the competitiveness of the domestic industry
5. MOECF issued a notification concerning change in product mix etc. Product change is possible provided all CETPs comply with the discharge norms and get approval from the state's technical committee. Other issues like closure of units, installation of online monitoring system, waste disposal, etc. are already highlighted to the Ministry & awaits resolution. Installation and up-gradation of CETPs to latest environmental standards will enable the manufacturers to improve their product portfolio and undertake development of more value-added products
6. OFAC sanctions are a major hindrance to exports and restricts Indian exporters from dealing with these countries despite some of these countries being in the MEIS list. There is a need for some arrangement with banks to transact in INR with these

countries, like the Iran Rupee Payment mechanism, which will be a continuation of business. Due to negligence of banks, in many cases, exporters/SBs are getting caution listed even after receiving payments and export shipments are hindered. RBI gives temporary extensions, but there is a need for a permanent solution

Recommendations for CHEMEXCIL:

In order to promote export of products, CHEMEXCIL may focus on following aspects:

- **Overall:**
  - ✓ In the next two years, focus could be on Set 2 to further strengthen the exports in large markets with low Indian presence
  - ✓ Continue to maintain the strong position in Set 1 markets.
  - ✓ Establish contacts with the prospective buyers to generate their interest in the Indian chemical products
  - ✓ Sponsor trade delegation, study teams and sales teams to various market abroad
  - ✓ Organize Workshops/Seminars on various trade and policy related issues
  - ✓ Disseminate trade information and intelligence to the member exporters on a quarterly basis
  - ✓ Liaise with the Government of India on all procedural and policy matters relevant to the chemical export trade
  - ✓ Liaise with import promotion and commercial agencies abroad for the benefit of chemical exporters
  - ✓ Technical barriers to trade (TBTs) are increasing day by day. China has come up with China NCSN (New Chemical Substance Notification) which is similar to EU REACH. To comply with these TBTs, provide member organizations an able platform to voice concerns related to compliance with EU REACH/ China NCSN registrations and ensure that their issues are addressed.
  - ✓ Facilitate short term training courses on International Marketing
  - ✓ Relook at export strategy every two years to factor in changing global scenario
- **Set 1: (Larger Market – Higher Export Share of India)**
  (For the list of countries, refer to the Individual panel analysis)
  - ✓ Closely monitor product import trends in these countries and ensure that India is not slipping away from its dominant position
  - ✓ Share these findings with member organizations
  - ✓ Build a repository of requirements to set up offices in these countries. These can be shared with member organizations as per their need. This will facilitate faster entry into these countries by member organizations.

- ✓ Ensure the presence of India pavilion in all relevant industry exhibitions such as that of cosmetics, agrochemicals, natural products, coatings and dyes and colorants.

- **Set 2: (Larger Market – Lower Export Share of India)**

  (For the list of countries, refer to the Individual panel analysis)

  - ✓ Associate with export promotion council (EPC) of respective countries to share information about local manufacturers. This needs to be the key focus area for CHEMEXCIL for next few years
  - ✓ Bring in delegations from these countries to inform them about domestic manufacturing, product portfolio, compliance adherences etc.
  - ✓ Prepare a panel-wise list of prospective customers in the countries belonging to this cluster
  - ✓ Arrange trade shows, road shows with member organizations for the promotion of Indian products
  - ✓ Arrange 'Reverse Buyer-Seller meets' in India itself for importers to get a glimpse of product portfolio and manufacturing operations in India
  - ✓ Participate in events such as European Organic Chemistry Congress in the EU countries to showcase Indian product offerings

- **Set 3: (Smaller Market – Higher Export Share of India)**

  (For the list of countries, refer to the Individual panel analysis)

  - ✓ With a stronghold established in the countries falling under this cluster, participate for trade fairs / arrange reverse buyer seller meets to display a large product portfolio especially newer products which can be sold to the existing customers and thus further penetrate these markets through cross-selling
  - ✓ Engage with EPC's of respective countries falling in this cluster to identify their local manufacturers, their feedstock requirement and analyse the same to understand product diversification opportunities
  - ✓ To increase the penetration in these countries through effort-light means, adopt digital promotion/ e-engagement techniques like webinars etc. to interact with counterparts
  - ✓ Liaison with government, take pre-emptive measures in cases where govt. regulations/ policies/ trade decisions have an impact on India's export to these cluster countries

- **Set 4: (Smaller Market – Lower Export Share of India)**

  (For the list of countries, refer to the Individual panel analysis)

  - ✓ Identify country clusters where multiple countries can be tapped through negotiations with trade organizations
  - ✓ To tap relatively smaller market in this cluster, adopt effort-light promotional model which will include creating and sharing product related videos, arranging

webinars for real-time interactions with EPCs and prospective customers in respective countries.

- ✓ Bring in delegations from these countries to inform them about domestic manufacturing, product portfolio, compliance adherences etc.
- ✓ Track panel-wise market growth in these countries, to identify markets which could grow rapidly in next few years

IX. Additional Recommendations for the Government

Chemicals and Chemical products contribute ~10.5% to India's foreign trade. In FY16, export of chemicals increased from INR 177,813 Cr to INR 181,381 registering 2% growth. At the same time, its imports came down from INR 262,744 Cr to INR 261,817 Cr. Though this is a positive sign for Indian chemical industry and to an economy as a whole, there is a substantial trade deficit which needs to be worked on. With chemical demand shifting towards Asia, and China reassessing its chemical industry play, it could offer opportunities for chemical companies in India. To top it, government's enhanced focus on "Make in India" and several states making Chemicals as one of the preferred industries will facilitate realizing such opportunities.

Currently imports of several chemicals and polymers today are equivalent to a global scale plant output. India is a net importer of chemicals since feedstock availability has historically been a woe of the industry. Net imports of organic chemicals and plastics have steeply risen in the past decade largely driven by imports of products such as polymers, methanol and petrochemical intermediates. Lack of adequate technology and skilled personnel to work with latest technology, gap in specialized infrastructure, relatively cheaper imports of certain products and unfavourable duty structures in some cases have been the major contributors to rising imports of chemicals in India. It doesn't have bilateral trade agreements with some of its largest trade partners. Our analysis has shown that, at a product level, India is not a major exporter to some of the largest markets in the world. Some of these challenges/ problems can be addressed through policy and regulatory means.

Following are some of the suggestions for the govt. which, if implemented, will be a positive step towards driving chemical exports from India.

- **Restructure Basic Customs Duty**
  - ✓ Products manufactured by Ethanol based chemical industry competes with products made from petro route where feedstock is derived from crude oil. Currently, import duty on industrial ethanol is 5% whereas it is nil for crude oil and 2.5% for ethylene. Hence, to make this industry competitive, a level playing field in terms of duty structure must be created. Reduction in import duty for ethanol could thus be considered to boost exports of finished goods.
  - ✓ Methanol consumption in country is estimated at 1.8 - 2.0 million tonnes and is expected to reach 2.5 million tonnes by the end of the 12th five-year plan. The current production capacity in the country is only 0.385 million tonnes/annum, thereby creating a significant gap which is met through imports, primarily from Middle East and China. On application side, the downstream products of methanol are Acetic Acid, Formaldehyde, Di Methyl Ether, Methyl Tertiary Butyl Ether,

Gasoline etc. which are major basic building blocks for majority of chemicals in India. The government could incentivize the development of downstream industries by removing customs duty on methanol until adequate capacities for methanol production are established.

- ✓ Acetic acid is an important organic chemical and critical building block/raw material for various downstream industrial chemicals like ethyl acetate, acetic anhydride, poly vinyl acetate etc. India is net exporter of these downstream products. Further, India is net importer of acetic acid as current domestic capacity is not sufficient to meet the demand. Current domestic demand of acetic acid is around 8.0 lakh ton p.a. while the production is only 1.5 lakh ton p.a. also out of this 1.5 lakh ton production, 50,000 ton is used for captive consumption thereby leaving only 1.0 lakh ton available for domestic market. This creates a gap of 6.5 lakh to 7.0 lakh ton p.a. which is met through imports. There are no new capacities planned in near future, thus compelling the downstream producers to depend on imports and same is expected to continue in near future. Acetic acid imports currently attract 5.56% of customs duty. To promote domestic manufacturing of acetic acid downstream products and make them competitive in global markets, reduction in customs duty on acetic acid is recommended.
- ✓ Ortho-xylene is key feedstock used in the manufacture of Phthalic Anhydride. By this duty reduction, the Indian PA industry will consume more Ortho Xylene which is produced in India and is exported at lower realizations than what it fetches domestically in India. The sole supplier of OX (raw material of PA), exports over 220,000 tonnes/annum to the Far East, and a good portion of this is re-imported from the Far East as finished product PA. Thus, current duty structure creates Value Addition, Employment and Investment in the Far East, and not in India. This gross anomaly, which supports foreign manufacturers at the expense of the domestic industry for the Indian market, needs immediate correction. The duty correction will reduce the “price-burden" faced by producers, as domestic pricing is severely dependant on prices of Imports. To avoid this reduction in the import duty of Ortho-xylene which currently stands at 2.5% is recommended
- ✓ Import Duty of Synthetic Rubber Latexes and Synthetic Rubber from ASEAN countries which have Free Trade Agreements with India, has been gradually reducing from 10% since 2010 and now it has reduced to 0% w.e.f. January 1, 2014. The concern is that imports of Synthetic Rubber Latex from Indonesia and other FTA countries are at 0% import duty against raw materials import duty of 2.5% (Styrene Monomer and Butadiene). These raw materials are not available from ASEAN countries so we are not able to take advantage of the FTA provisions. Since Styrene Monomer and Butadiene make up 90% of the Raw Material cost this has

affected Indian manufacturers adversely. Reduction in the import duty of styrene monomer is recommended

- ✓ Butadiene is another critical raw material for the Synthetic Rubber industry where 2.5% import duty is currently being levied. There is effectively only 1 supplier of Butadiene in India (IOCL) and since pricing is being done on the basis of imported Butadiene including freight (which is very high), the cost of Butadiene is highly uncompetitive in India compared to most other countries. There are two other manufacturers of Butadiene in India (Reliance Industries Ltd. and Haldia Petrochemicals Ltd.) but they do not supply anymore to the Indian Butadiene consumers. To improve the competitiveness of the industry it is requested to reduce import duty on Butadiene
- ✓ Polyester is the key pillar of India's robust synthetic fibre industry. Indian manufacturers have made substantial investments in creating domestic capacities of fibre intermediates like Purified Teraphthalic Acid (PTA) and Mono Ethylene Glycol (MEG). However massive Chinese surplus capacity of PTA and MEG pose a serious threat to these investments today. It is proposed that duty on PTA (HS 29173600) and MEG (HS 29053100) may be raised from existing level of 5% to 7.5%. This will not only help rationalize the tariff structure for the polyester sector but will also improve the duty spread between these products and their feed stocks Naphtha thereby, supporting domestic manufacturing
- ✓ India is amongst the largest producer and net exporter of pyridine & its derivatives, ethyl acetate and acetic anhydride. The increase in custom duty rates at the level of WTO allowance will help the domestic industry to protect their interest and encourage more investment if required to meet up the additional demand. Also these intermediates are key building blocks/intermediates for pharma, agro & specialty chemical applications. It will also be worthwhile to note that GoI has already identified China as major threat to Pharma and Agro industries. Indian Pharma and Agro industry (mainly Active producers in India) are now highly dependent on Chinese intermediate suppliers. These Chinese suppliers are constantly putting pressure on domestic manufacturer in terms of lower price supplies and if we do not put deterrence with necessary higher duties, the Indian manufacturer will be adversely impacted both in terms of capacity utilization and profitability. Thus, increase custom duty rates at the level of WTO allowance of Pyridine & its derivatives, Ethyl acetate (HS code 29153100) and acetic anhydride (HS code 29152400) is recommended

➢ **Free Trade Agreements**

- ✓ Physical verification of a product being exported for the first time under an FTA is compulsory and this is extremely time consuming. The preferential certificate for exports could be continued and the physical verification could be carried out simultaneously and along with this, issue a certificate which would avoid delayed shipment and cancellation of export orders

- ✓ Instead of getting preferential certificates from Export Inspection Agencies, which is a tedious process, the certification could be allowed by the exporter itself with Star Export credentials. This would reduce the transaction costs for exports and quicken the documentation process

- **Restructuring inverted duty**
  - ✓ There are several products where duty inversion is caused due to FTAs. For example, Hydrogen Peroxide (used for bleaching) when imported from ASEAN countries attract duty at 2.5%. Through the SAARC arrangement, imports from Bangladesh attract 0% duty and imports from Pakistan attract 5.5% duty at BCD Levels. Imports from Korea attract a duty of 6.5%. While imports from other sources of origin the duty is 7.5%. The Customs Duty for the imported Raw Materials and Key ingredients (2 Ethyl Anthraquinone (2-EA) and Fresh Catalyst (2%Palladium Content)) is 7.5%. With raw material available at such high tariff (7.5%) and the finished product available at 0%, it not only harms the domestic producers, but also results in large imports and dollar outflow. Similar to Anthraquinone, whose duty was reduced from 7.5% to 2.5%, that of 2-EA could be reduced as well
  - ✓ Orthoxylene (29024100) is a key feedstock, and the only Raw Material used in the manufacture of Phthalic Anhydride, which serves a wide range of chemicals which find application in infrastructure, polyester resins, agricultural pipes, paints and dyes. The high duty on Orthoxylene has made the domestic manufacturing of Phthalic Anhydride uncompetitive in India, leading to surge in imports and declining exports of this product. There is a severe case of duty inversion here where the duty on Phthalic Anhydride (Finished Product) from major producers Korea, SEA countries is 2% and will further reduce to 0% by 2016 due to the ASEAN, other FTAs. This is resulting in a negative duty spread between Raw Material and Finished product of minus (-) 2.5%, which was originally +2.5% till a few years ago. Orthoxylene is the only Raw Material used for the manufacture of Phthalic Anhydride. Hence duty on Orthoxylene can be reduced
  - ✓ The difference in duties for raw materials and finished goods leads to the company striving to create significant value addition. An offshoot of this is the blockage of working capital funds which entail a high interest cost. Hence, a legal provision to refund such unutilized credit could bring relief to exporters

- **Infrastructural reforms**
  - ✓ The government could support on overcoming infrastructural challenges – Dye clusters need to be allotted specific land in PCPIRs under separate entities called “Dye Parks”.

- ✓ Govt. should create a one-stop-portal/ database for all the exporters in India. This portal should provide information on product-wise custom duty for Indian products exported to different countries
- ✓ Recently India made exporting and importing easier by launching the ICEGATE portal and simplifying border and documentary procedures. Still India ranks 143rd in terms of trading across border score as per World Bank's 'Ease of Doing Business' report 2017. For exports on an average it takes ~38 hours for documentary compliance and ~106 hours for border compliance. Reduction of time spent in export formalities at Indian ports could lead to reduction in transaction and other associated costs to exporters. Expediting export processes at ports by automation could be a step that the government could consider doing
- ✓ Government should work towards creation of inter-linked chemical clusters with all infrastructural facilities like roads, pipelines, effluent treatment plants, power, utilities, etc. Also, adoption of integrated cluster in cluster approach can enhance the competitiveness of domestic manufacturing for both domestic and multinationals
- ✓ Government should facilitate pooling of common infrastructure at existing industry clusters to reduce the capital requirement and improve the project viability
- ✓ The government of India must embark on establishing district/town level "Skills Development Centers" in tandem with the states and union territories. This should be encouraged in states having industrial clusters as availability of large pool of local talent is a key criterion for investment decisions.

➢ **Regulatory support**

- ✓ Provisions for change of dye colour for dye manufacturers do exist in the current law but it is an extremely complicated and lengthy process. The government could grant permission for product change-over and to expand capacity. It has been established that by changing one of the raw materials, one can easily switch-over from one colour to another and still maintain the constitution
- ✓ The government could provide EIA permits for blanket product baskets so companies can establish a multi-purpose plant and thus improve their economies of scale
- ✓ The government could opt for a more favourable pollution regime in Export Oriented Units (EOU) as followed by cities like Tokyo. For instance, the COD limit in the industry is around 250 ppm. This could be benchmarked across other units across the world and rationalized accordingly. For instance, this would incentivize dye manufacturers to produce more with existing plants
- ✓ The government could promote clusters to boost low cost manufacturing. Environmental norms should be set to strike a fine balance so that they won't

discourage domestic manufacturers at the same time minimizing the environmental damage

- **Other incentives**
  - ✓ USA, China, France, Belgium, Canada, Germany and Japan are the countries which fall under Set 2 for most of the panels (Refer Set mapping for individual panels) govt. needs to provide preferential treatment across panels as these countries offer large export opportunity and India today has not been able to make significant inroads in these countries
  - ✓ India should aim for signing up an exclusive bilateral agreement with USA and China
  - ✓ Indonesia, Bangladesh, Pakistan and Turkey are key export markets for dyes from India. In order to partly offset the competition from China, the government could consider increasing the MEIS export incentive from the 2% currently to 4-5% for these countries
  - ✓ As the government is looking to create a mega refinery (To be jointly built by IOCL, BPCL, HPCL), it should ensure that a part of refinery production is mandatorily allotted for downstream chemical industries to boost domestic manufacturing
  - ✓ Syngas can be used in the Fischer–Tropsch process to produce diesel, or converted into e.g. methane, methanol, and dimethyl ether in catalytic processes. It can also be used for the production of ethylene based products. Govt. needs to encourage syngas usage thereby partially addressing feedstock challenge
  - ✓ The government currently offers subsidies for the registration fee for REACH compliance. However, since the majority of the expenses are related to data collection, the government could look to offer subsidies for data collection costs as well
  - ✓ The government could look to strengthen existing trade agreements with China. For instance, currently, China imports cosmetics from ASEAN countries at no customs duty; however the some goods are imported from India at a 9% duty. Also, fatty alcohols are imported from India at 12%. Similar trade agreements could be strengthened with the Middle East, Africa and Latin America
  - ✓ Govt. needs to promote contract farming to boost the production of castor seeds, mint leaves and other natural ingredients. It should also consider providing minimum support price (MSP) for these natural ingredients to maintain/ strengthen India’s position as a major exporter of end products and to maintain reliable supplies year on year
  - ✓ The interest subvention scheme for packing credit could be extended to all panels and not just the existing short list of chapters. Further, Star Export Houses should be provided with some additional incentives to improve their performance

X. Recommendations Summary for CHEMEXCIL

- **Overall:**
  - ✓ In the next two years, focus could be on Set 2 to further strengthen the exports in large markets with low Indian presence
  - ✓ Continue to maintain the strong position in Set 1 markets.
  - ✓ Establish contacts with the prospective buyers to generate their interest in the Indian chemical products
  - ✓ Sponsor trade delegation, study teams and sales teams to various market abroad
  - ✓ Organize Workshops/Seminars on various trade and policy related issues
  - ✓ Disseminate trade information and intelligence to the member exporters on a quarterly basis
  - ✓ Liaise with the Government of India on all procedural and policy matters relevant to the chemical export trade
  - ✓ Liaise with import promotion and commercial agencies abroad for the benefit of chemical exporters
  - ✓ Technical barriers to trade (TBTs) are increasing day by day. China has come up with China NCSN (New Chemical Substance Notification) which is similar to EU REACH. To comply with these TBTs, provide member organizations an able platform to voice concerns related to compliance with EU REACH/ China NCSN registrations and ensure that their issues are addressed.
  - ✓ Facilitate short term training courses on International Marketing
  - ✓ Relook at export strategy every two years to factor in changing global scenario
- **Set 1: (Larger Market – Higher Export Share of India)**

  (For the list of countries, refer to the Individual panel analysis)
  - ✓ Closely monitor product import trends in these countries and ensure that India is not slipping away from its dominant position
  - ✓ Share these findings with member organizations
  - ✓ Build a repository of requirements to set up offices in these countries. These can be shared with member organizations as per their need. This will facilitate faster entry into these countries by member organizations.
  - ✓ Ensure the presence of India pavilion in all relevant industry exhibitions such as that of cosmetics, agrochemicals, natural products, coatings and dyes and colorants.
- **Set 2: (Larger Market – Lower Export Share of India)**

  (For the list of countries, refer to the Individual panel analysis)
  - ✓ Associate with export promotion council (EPC) of respective countries to share information about local manufacturers. This needs to be the key focus area for CHEMEXCIL for next few years

- ✓ Bring in delegations from these countries to inform them about domestic manufacturing, product portfolio, compliance adherences etc.
- ✓ Prepare a panel-wise list of prospective customers in the countries belonging to this cluster
- ✓ Arrange trade shows, road shows with member organizations for the promotion of Indian products
- ✓ Arrange 'Reverse Buyer-Seller meets' in India itself for importers to get a glimpse of product portfolio and manufacturing operations in India
- ✓ Participate in events such as European Organic Chemistry Congress in the EU countries to showcase Indian product offerings

- **Set 3: (Smaller Market – Higher Export Share of India)**

  (For the list of countries, refer to the Individual panel analysis)

  - ✓ With a stronghold established in the countries falling under this cluster, participate for trade fairs / arrange reverse buyer seller meets to display a large product portfolio especially newer products which can be sold to the existing customers and thus further penetrate these markets through cross-selling
  - ✓ Engage with EPC's of respective countries falling in this cluster to identify their local manufacturers, their feedstock requirement and analyse the same to understand product diversification opportunities
  - ✓ To increase the penetration in these countries through effort-light means, adopt digital promotion/ e-engagement techniques like webinars etc. to interact with counterparts
  - ✓ Liaison with government, take pre-emptive measures in cases where govt. regulations/ policies/ trade decisions have an impact on India's export to these cluster countries

- **Set 4: (Smaller Market – Lower Export Share of India)**

  (For the list of countries, refer to the Individual panel analysis)

  - ✓ Identify country clusters where multiple countries can be tapped through negotiations with trade organizations
  - ✓ To tap relatively smaller market in this cluster, adopt effort-light promotional model which will include creating and sharing product related videos, arranging webinars for real-time interactions with EPCs and prospective customers in respective countries.
  - ✓ Bring in delegations from these countries to inform them about domestic manufacturing, product portfolio, compliance adherences etc.
  - ✓ Track panel-wise market growth in these countries, to identify markets which could grow rapidly in next few years

XI. List of Sources & References

1. UN Comtrade Data
2. Directorate General of Commercial Intelligence and Statistics
3. Directorate General of Foreign Trade
4. Federation of Indian Export Organisations
5. Indian Chemical Council-Pre Budget Memorandum 2016-17
6. Indian Chemical Industry- Five Year Plan 2012-17
7. Doing Business 2017, World Bank Report
8. Ministry of Commerce & Industry
9. World International Trade Organisation
10. Chemicals & Petrochemicals at a Glance- 2016
11. News Articles & Publications
12. Primary Interactions with key stakeholders

XII. Annexure

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
1108	11081100	STARCH OF WHEAT	Panel-2	Panel-2
1108	11081200	STARCH OF MAIZE (CORN)	Panel-2	Panel-2
1108	11081300	STARCH OF POTATO	Panel-2	Panel-2
1108	11081400	STARCH OF MANIOC(CASSAVA)	Panel-2	Panel-2
1108	11081990	OTHER STARCHES	Panel-2	Panel-2
1505	15050010	WOOL ALCOHOL (INCLUDING LANOLIN ALCOHOL)	Panel-3	Panel-3
1515	15153010	CASTOR OIL & ITS FRACTIONS (EDIBLE GRADE)	Panel-4	Panel-4
1515	15159030	CARDAMOM OIL	Panel-3	Panel-4
1516	15162031	HYDROGENATED CASTOR OIL (OPAL WAX)	Panel-3	Panel-3
1516	15162039	OTHER HYDROGENATED CASTOR OIL (OPAL WAX)	Panel-3	Panel-3
1518	15180021	CASTOR OIL DEHYDRATED OF EDIBLE GRADE	Panel-3	Panel-3
1518	15180029	OTHER CASTOR OIL DEHYDRATED	Panel-3	Panel-3
1520	15200000	GLYCEROL, CRUDE, GLYCEROL WATERS AND GLYCEROL LYES	Panel-3	Panel-3
1521	15219010	BEE WAX WHETHER OR NOT COLOURED	Panel-2	Panel-2
2102	21021010	ACTIVE YEASTS (CULTURE)	Panel-3	Panel-3
2207	22072000	ETHYL ALCOHOL AND OTHER SPIRITS DENATURED OF ANY STRENGTH	Panel-2	Panel-2
2526	25262000	NATURAL STEATITE CRUSHED/POWDER	Panel-3	Panel-3
2801	28011000	CHLORINE	Panel-2	Panel-2
2801	28012000	IODINE	Panel-2	Panel-2
2801	28013010	FLUORINE	Panel-2	Panel-2
2801	28013020	BROMINE	Panel-2	Panel-2
2802	28020010	SUBLIMED SULPHUR	Panel-2	Panel-2
2802	28020020	PRECIPITATED SULPHUR	Panel-2	Panel-2
2802	28020030	COLLOIDAL SULPHUR	Panel-2	Panel-2
2803	28030010	CARBON BLACK	Panel-2	Panel-2
2803	28030020	ACETYLENE BLACK	Panel-2	Panel-2
2803	28030090	OTHER CARBON BLACKS AND OTHER FORMS OF CARBON	Panel-2	Panel-2
2804	28041000	HYDROGEN	Panel-2	Panel-2
2804	28042100	RARE GASES ARGON	Panel-2	Panel-2
2804	28042910	RARE GASES HELIUM	Panel-2	Panel-2
2804	28042990	OTHER RARE GASES	Panel-2	Panel-2
2804	28043000	NITROGEN	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2804	28044090	OTHER OXYGEN	Panel-2	Panel-2
2804	28045010	BORON	Panel-2	Panel-2
2804	28045020	TELLURIUM	Panel-2	Panel-2
2804	28046100	SILICON CONTAINING BY WEIGHT NOT LESS THAN 99.99% OF SILICON	Panel-2	Panel-2
2804	28046900	OTHER SILICON	Panel-2	Panel-2
2804	28047010	PHOSPHORUS BLACK	Panel-2	Panel-2
2804	28047020	PHOSPHORUS RED	Panel-2	Panel-2
2804	28047030	PHOSPHORUS WHITE OR YELLOW	Panel-2	Panel-2
2804	28048000	ARSENIC	Panel-2	Panel-2
2804	28049000	SELENIUM	Panel-2	Panel-2
2805	28051100	ALKALI OR ALKALINE-EARTH METALS- SODIUM	Panel-2	Panel-2
2805	28051200	ALKALI OR ALKALINE-EARTH METALS - CALCIUM	Panel-2	Panel-2
2805	28051900	OTHER ALKALI METALS	Panel-2	Panel-2
2805	28053000	RARE EARTH METALS SCANDIUM AND YTTRIUM WHETHER OR NOT INTERMIXED OR INTERALLOYED	Panel-2	Panel-2
2805	28054000	MERCURY	Panel-2	Panel-2
2806	28061000	HYDROCHLORIC ACID (HYDROGEN CHLORIDE)	Panel-2	Panel-2
2806	28062000	CHLORO-SULPHURIC ACID	Panel-2	Panel-2
2807	28070010	SULPHURIC ACID	Panel-2	Panel-2
2807	28070020	OLEUM	Panel-2	Panel-2
2808	28080010	NITRIC ACID	Panel-2	Panel-2
2808	28080020	SULPHO NITRIC ACID	Panel-2	Panel-2
2809	28091000	DIPHOSPHORUS PENTAOXIDE	Panel-2	Panel-2
2809	28092010	PHOSPHORIC ACID	Panel-2	Panel-2
2809	28092020	POLY PHOSPHORIC ACID	Panel-2	Panel-2
2810	28100010	OXIDES OF BORON	Panel-2	Panel-2
2810	28100020	BORIC ACID (OTHER THAN NATURAL)	Panel-2	Panel-2
2811	28111100	HYDROGEN FLUORIDE (HYDROFLUORIC ACID)	Panel-2	Panel-2
2811	28111910	HYDROCYANIC ACID (HYDROGEN CYANIDE, PRUSSIC ACID)	Panel-2	Panel-2
2811	28111920	HYPOPHOPHOROUS ACID (PHOSPHINIC ACID)	Panel-2	Panel-2
2811	28111930	ACIDS OF ARSENIC	Panel-2	Panel-2
2811	28111940	SULPHONIC ACID	Panel-2	Panel-2
2811	28111990	OTHER INORGANIC ACID	Panel-2	Panel-2
2811	28112110	CARBON DIOXIDE DRY ICE	Panel-2	Panel-2
2811	28112190	OTHER CARBON DIOXIDE	Panel-2	Panel-2
2811	28112200	SILICON DIOXIDE	Panel-2	Panel-2
2811	28112300	SULPHUR DIOXIDE	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2811	28112910	ARSENIC PENTOXIDE	Panel-2	Panel-2
2811	28112920	ARSENIC TRIOXIDE	Panel-2	Panel-2
2811	28112930	NITROUS OXIDE	Panel-2	Panel-2
2811	28112940	CARBON MONO OXIDE	Panel-2	Panel-2
2811	28112950	SULPHUR TRIOXIDE (SULPHURIC ANHYRIDE)	Panel-2	Panel-2
2811	28112990	OTHER INORGANIC OXYGEN COMPOUNDS OF NON-METALS	Panel-2	Panel-2
2812	28121010	PHOSGENE	Panel-2	Panel-2
2812	28121021	PHOSPHORUS TRICHLORIDE	Panel-2	Panel-2
2812	28121022	PHOSPHORUS PENTACHLORIDE	Panel-2	Panel-2
2812	28121030	PHOSPHORUS OXYCHLORIDE	Panel-2	Panel-2
2812	28121040	SULPHUR OXYCHLORIDE THIONYL CHLORIDE	Panel-2	Panel-2
2812	28121050	SILICON TETRACHLORIDE	Panel-2	Panel-2
2812	28121090	OTHER CHLORIDES AND CHLORIDE OXIDE	Panel-2	Panel-2
2812	28129000	OTHER HALIDES AND HALIDES OXIDES OF NON-METALS	Panel-2	Panel-2
2813	28131000	CARBON DI-SULPHIDE	Panel-2	Panel-2
2813	28139010	ARSENIC DISULPHIDE (ARTIFCIAL)	Panel-2	Panel-2
2813	28139020	COMMERCIAL PHOSPHORUS TRISULPHIDE	Panel-2	Panel-2
2813	28139090	OTHER SULPHIDES OF NON METALS	Panel-2	Panel-2
2814	28141000	ANHYDROUS AMMONIA	Panel-2	Panel-2
2814	28142000	AMMONIA IN AQUEOUS SOLUTION	Panel-2	Panel-2
2815	28151110	FLAKES OF SODIUM HYDROXIDE (CAUSTIC SODA)	Panel-2	Panel-2
2815	28151190	OTHER SODIUM HYDROXIDE (CAUSTIC SODA)	Panel-2	Panel-2
2815	28151200	SODIUM HYDROXIDE IN AQUEOUS SOLUTION (SODA LYE OR LIQUID SODA)	Panel-2	Panel-2
2815	28152000	POTASSIUM HYDROXIDE (CAUSTIC POTASH)	Panel-2	Panel-2
2815	28153000	PEROXIDE OF SODIUM OR POTASSIUM	Panel-2	Panel-2
2816	28161010	MAGNESIUM HYDROXIDE	Panel-2	Panel-2
2816	28161020	PEROXIDE OF MAGNESIUM	Panel-2	Panel-2
2816	28164000	OXIDES, HYDROXIDES AND PEROXIDES OF STRONTIUM OR BARIUM	Panel-2	Panel-2
2818	28183000	ALUMINIUM HYDROXIDE	Panel-2	Panel-2
2819	28191000	CHROMIUM TRIOXIDE	Panel-2	Panel-2
2819	28199000	OTHER CHROMIUM OXIDES AND HYDROXIDES	Panel-2	Panel-2
2820	28201000	MANGANESE DIOXIDE	Panel-2	Panel-2
2820	28209000	OTHER MANGANESE OXIDE	Panel-2	Panel-2
2822	28220010	COBALT OXIDE	Panel-2	Panel-2
2822	28220020	COBALT HYDROXIDES	Panel-2	Panel-2
2825	28251010	HYDRAZINE ANHYDROUS	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2825	28251020	HYDRAZINE ANHYDRATE	Panel-2	Panel-2
2825	28251030	HYDRAZINE SULPHATE	Panel-2	Panel-2
2825	28251040	HYDROXYLAMINE SULPHATE	Panel-2	Panel-2
2825	28251090	OTHER HYDRAZINE & HYDROXYLMINE AND THEIR INORGANIC SALTS	Panel-2	Panel-2
2825	28252000	LITHIUM OXIDE AND HYDROXIDE	Panel-2	Panel-2
2825	28253010	VANADIUM PENTOXIDE FLAKES	Panel-2	Panel-2
2825	28253090	OTHER VANADIUM OXIDES AND HYDROXIDE	Panel-2	Panel-2
2825	28254000	NICKEL OXIDES AND HYDROXIDES	Panel-2	Panel-2
2825	28255000	COPPER OXIDES AND HYDROXIDES	Panel-2	Panel-2
2825	28256010	GERMANIUM OXIDES	Panel-2	Panel-2
2825	28256020	ZIRCONIUM DIOXIDE	Panel-2	Panel-2
2825	28257010	MOLYBDENUM TRIOXIDE	Panel-2	Panel-2
2825	28257020	MOLYBDIC ACID	Panel-2	Panel-2
2825	28257090	OTHER MOLYBDENUM OXIDE AND HYDROXIDES	Panel-2	Panel-2
2825	28258000	ANTIMONY OXIDES	Panel-2	Panel-2
2825	28259010	TIN OXIDE	Panel-2	Panel-2
2825	28259020	CADMIUM OXIDE	Panel-2	Panel-2
2825	28259030	MERCURY OXIDE (MERCURIC OXIDE)	Panel-2	Panel-2
2825	28259040	CALCIUM HYDROXIDE	Panel-2	Panel-2
2825	28259050	AMMONIUM HYDROXIDE	Panel-2	Panel-2
2826	28261110	AMMONIUM FLUORIDE	Panel-2	Panel-2
2826	28261120	SODIUM FLUORIDE	Panel-2	Panel-2
2826	28261200	FLUORIDES OF ALUMINIUM	Panel-2	Panel-2
2826	28261910	MAGNESIUM FLUORIDES	Panel-2	Panel-2
2826	28261990	OTHER FLUORIDES	Panel-2	Panel-2
2826	28262010	FLUOROSILICATE OF SODIUM	Panel-2	Panel-2
2826	28262020	FLUOROSILICATE OF POTASSIUM	Panel-2	Panel-2
2826	28263000	SODIUM HEXAFLUOROALUMINATE	Panel-2	Panel-2
2826	28269000	OTHER COMPLEX FLUORINE SALTS	Panel-2	Panel-2
2827	28271000	AMMONIUM CHLORIDE	Panel-2	Panel-2
2827	28272000	CALCIUM CHLORIDE	Panel-2	Panel-2
2827	28273100	CHLORIDES OF MAGNESIUM	Panel-2	Panel-2
2827	28273200	CHLORIDES OF ALUMINIUM	Panel-2	Panel-2
2827	28273300	CHLORIDES OF IRON	Panel-2	Panel-2
2827	28273400	CHLORIDES OF COBALT	Panel-2	Panel-2
2827	28273500	CHLORIDES OF NICKEL	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2827	28273600	CHLORIDES OF ZINC	Panel-2	Panel-2
2827	28273910	MERCURIC CHLORIDE	Panel-2	Panel-2
2827	28273920	MERCUROUS CHLORIDE	Panel-2	Panel-2
2827	28273930	STRONTIUM CHLORIDE	Panel-2	Panel-2
2827	28273940	CUPROUS CHLORIDE	Panel-2	Panel-2
2827	28273990	OTHER CHLORIDES	Panel-2	Panel-2
2827	28274190	OTHER COPPER CHLORIDE OXIDES N.E.S.	Panel-2	Panel-2
2827	28275110	SODIUM BROMIDE	Panel-2	Panel-2
2827	28275120	POTASSIUM BROMIDE	Panel-2	Panel-2
2827	28275910	MAGNESIUM BROMIDE	Panel-2	Panel-2
2827	28275990	OTHER BROMIDES AND OXYBROMIDES	Panel-2	Panel-2
2827	28276010	POTASSIUM IODIDE	Panel-2	Panel-2
2827	28276020	SODIUM IODIDE	Panel-2	Panel-2
2827	28276090	OTHER IODIDES AND IODIDE OXIDES	Panel-2	Panel-2
2828	28281010	COMMERCIAL CALCIUM HYPOCHLORITE (BLEACHING PASTE/POWDER)	Panel-2	Panel-2
2828	28281090	OTHER COMMERCIAL CALCIUM HYPOCHLORITE (BLEACHING PASTE/POWDER)	Panel-2	Panel-2
2828	28289011	BLEACHING PASTE OR POWDER OF SODIUM HYPOCHLORITES	Panel-2	Panel-2
2828	28289019	OTHER SODIUM HYPOCHLORITES	Panel-2	Panel-2
2828	28289020	POTASSIUM HYPOCHLORITE	Panel-2	Panel-2
2828	28289030	SODIUM CHLORITE	Panel-2	Panel-2
2828	28289040	ALUMINA CHLORITE	Panel-2	Panel-2
2828	28289050	HYPOBROMITES	Panel-2	Panel-2
2828	28289060	BLEACHING PASTE/POWDERS OF OTHER HYPOCHLORITES	Panel-2	Panel-2
2828	28289090	OTHER SODIUM HYPOCHLORITES	Panel-2	Panel-2
2829	28291100	SODIUM CHLORATE	Panel-2	Panel-2
2829	28291910	BARIUM CHLORATES	Panel-2	Panel-2
2829	28291920	POTASSIUM CHLORATE	Panel-2	Panel-2
2829	28291930	MAGNESIUM CHLORATE	Panel-2	Panel-2
2829	28291990	OTHER CHLORATES	Panel-2	Panel-2
2829	28299010	PERCHLORATES	Panel-2	Panel-2
2829	28299020	BROMATES AND PERBROMATES	Panel-2	Panel-2
2829	28299030	IODATES AND PERIODATES	Panel-2	Panel-2
2830	28301000	SODIUM SULPHIDE	Panel-2	Panel-2
2830	28303000	CADMIUM SULPHIDE	Panel-2	Panel-2
2830	28309010	OTHER SULPHIDES	Panel-2	Panel-2
2830	28309020	OTHER POLYSULPHIDES	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2831	28311010	SODIUM DITHIONITES (SODIUM HYDROSULPHITE)	Panel-2	Panel-2
2831	28311020	SODIUM SULPHOXYLATE (INCLUDING SODIUM FORMALDEHYDE SULPHOXYLATE)	Panel-2	Panel-2
2831	28319010	OTHER DITHIONITES	Panel-2	Panel-2
2831	28319020	OTHER SULPHOXYLATES	Panel-2	Panel-2
2832	28321010	SODIUM BI-SULPHITE	Panel-2	Panel-2
2832	28321020	SODIUM HYDROSULPHITES	Panel-2	Panel-2
2832	28321090	OTHER SODIUM SULPHITE	Panel-2	Panel-2
2832	28322010	POTASSIUM METABISULPHITE	Panel-2	Panel-2
2832	28322020	MAGNESIUM SULPHITE	Panel-2	Panel-2
2832	28322090	OTHER SULPHITE	Panel-2	Panel-2
2832	28323010	SODIUM THIOSULPHATE (HYPO)	Panel-2	Panel-2
2832	28323020	MAGNESIUM THIOSULPHATE	Panel-2	Panel-2
2832	28323090	OTHER THIOSULPHATE	Panel-2	Panel-2
2833	28331100	DISODIUM SULPHATE	Panel-2	Panel-2
2833	28331910	SODIUM HYDROGEN SULPHATE (ACID SULPHATE)	Panel-2	Panel-2
2833	28331920	SODIUM PYROSULPHATE	Panel-2	Panel-2
2833	28332100	MAGNESIUM SULPHATE	Panel-2	Panel-2
2833	28332210	ALUMINIUM SULPHATE (IRON FREE)	Panel-2	Panel-2
2833	28332300	CHROMIUM SULPHATE	Panel-2	Panel-2
2833	28332400	NICKEL SULPHATE	Panel-2	Panel-2
2833	28332500	COPPER SULPHATE	Panel-2	Panel-2
2833	28332610	ZINC SULPHATE (AGRICULTURAL GRADE ORDINARY USED AS MICRONUTRIENT)	Panel-2	Panel-2
2833	28332690	OTHER ZINC SULPHATE	Panel-2	Panel-2
2833	28332700	BARIUM SULPHATE	Panel-2	Panel-2
2833	28332910	FERROUS SULPHATE	Panel-2	Panel-2
2833	28332920	MERCURIC SULPHATE	Panel-2	Panel-2
2833	28332930	QUINIDINE SULPHATE	Panel-2	Panel-2
2833	28332940	MANGANESE SULPHATE	Panel-2	Panel-2
2833	28332950	STRONTIUM SULPHATE	Panel-2	Panel-2
2833	28332990	OTHER SULPHATE, N.E.S.	Panel-2	Panel-2
2833	28333010	AMMONIUM ALUM	Panel-2	Panel-2
2833	28333020	FERRIC AMMONIUM ALUM	Panel-2	Panel-2
2833	28333030	POTASH ALUM	Panel-2	Panel-2
2833	28333090	OTHER ALUM	Panel-2	Panel-2
2833	28334000	PEROXOSULPHATES (PERSULPHATES)	Panel-2	Panel-2
2834	28341010	SODIUM NITRITE	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2834	28341090	OTHER NITRITES	Panel-2	Panel-2
2834	28342100	POTASSIUM NITRATE	Panel-2	Panel-2
2834	28342910	STRONTIUM NITRATE	Panel-2	Panel-2
2834	28342920	MAGNESIUM NITRATE	Panel-2	Panel-2
2834	28342930	BARIUM NITRATE	Panel-2	Panel-2
2834	28342990	OTHER NITRATES	Panel-2	Panel-2
2835	28351010	CALCIUM HYPOPHOSPHITE	Panel-2	Panel-2
2835	28351020	MAGNESIUM HYPOPHOSPHITE	Panel-2	Panel-2
2835	28351090	OTHER PHOSPHINATES (HYPOPHOSPHITES) AND PHOSPHONATES (PHOSPHITES)	Panel-2	Panel-2
2835	28352200	MONO OR DISODIUM PHOSPHATE	Panel-2	Panel-2
2835	28352400	PHOSPHATES OF POTASSIUM	Panel-2	Panel-2
2835	28352500	CALCIUM HYDROGEN ORTHO PHOSPHATE (DICALCIUM PHOSPHATE)	Panel-2	Panel-2
2835	28352610	CALCIUM MONOBASIC PHOSPHATE	Panel-2	Panel-2
2835	28352620	CALCIUM TRIBASIC PHOSPHATE	Panel-2	Panel-2
2835	28352690	OTHER CALCIUM PHOSPHATES	Panel-2	Panel-2
2835	28352910	MAGNESIUM PHOSPHATE MONOBASIC	Panel-2	Panel-2
2835	28352920	MAGNESIUM PHOSPHATE DIBASIC	Panel-2	Panel-2
2835	28352930	MAGNESIUM PHOSPHATE TRIBASIC	Panel-2	Panel-2
2835	28352940	SODIUM HEXA META PHOSPHATE	Panel-2	Panel-2
2835	28352990	OTHER PHOSPHATES, N.E.S.	Panel-2	Panel-2
2835	28353100	SODIUM TRIPHOSPHATE (SODIUM TRIPOLY-PHOSPHATE)	Panel-2	Panel-2
2835	28353900	OTHER POLYPHOSPHATES	Panel-2	Panel-2
2836	28361000	COMMERCIAL AMMONIUM CARBONATE AND OTHER AMMONIUM CARBONATE	Panel-2	Panel-2
2836	28362010	DISODIUM CARBONATE DENSE (SODA ASH)	Panel-2	Panel-2
2836	28362020	DISODIUM CARBONATE LIGHT (SODA ASH)	Panel-2	Panel-2
2836	28362090	OTHER DISODIUM CARBONATE	Panel-2	Panel-2
2836	28363000	SODIUM HYDROGEN CARBONATE	Panel-2	Panel-2
2836	28364000	POTASSIUM CARBONATE	Panel-2	Panel-2
2836	28365000	CALCIUM CARBONATE	Panel-2	Panel-2
2836	28366000	BARIUM CARBONATE	Panel-2	Panel-2
2836	28367000	LEAD CARBONATE	Panel-2	Panel-2
2836	28369100	LITHIUM CARBONATE	Panel-2	Panel-2
2836	28369200	STRONTIUM CARBONATE	Panel-2	Panel-2
2836	28369910	PERCARBONATES	Panel-2	Panel-2
2836	28369920	MAGNESIUM CARBONATE (EXCL. NATURAL)	Panel-2	Panel-2
2836	28369930	ALUMINIUM BICARBONATE	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2836	28369940	POTASSIUM BICARBONATE	Panel-2	Panel-2
2836	28369990	OTHER CARBONATES, N.E.S.	Panel-2	Panel-2
2837	28371100	CYANIDES AND CYANIDE OF SODIUM	Panel-2	Panel-2
2837	28371910	POTASSIUM CYANIDE	Panel-2	Panel-2
2837	28371920	DOUBLE CYANIDE OF POTASSIUM AND SODIUM	Panel-2	Panel-2
2837	28371990	OTHER CYANIDES AND OXIDE	Panel-2	Panel-2
2837	28372010	AMMONIUM SULPHOCYANIDE	Panel-2	Panel-2
2837	28372020	POTASSIUM FERRICYANIDE	Panel-2	Panel-2
2837	28372030	POTASSIUM FERROCYANIDE	Panel-2	Panel-2
2837	28372040	SODIUM FERROCYANIDE	Panel-2	Panel-2
2837	28372050	SODIUM NITROPRUSSIDE (SODIUM NITROFERRICYANIDE)	Panel-2	Panel-2
2837	28372090	OTHER COMPLEX CYANIDES	Panel-2	Panel-2
2838	28380010	FULMINATES	Panel-2	Panel-2
2838	28380020	CYANATES	Panel-2	Panel-2
2838	28380030	THIOCYANATES	Panel-2	Panel-2
2839	28391100	SODIUM METASILICATES	Panel-2	Panel-2
2839	28391900	OTHER SODIUM SILICATES	Panel-2	Panel-2
2839	28392000	POTASSIUM SILICATES	Panel-2	Panel-2
2839	28399010	MAGNESIUM TRISILICATE	Panel-2	Panel-2
2839	28399090	OTHER SILICATES AND COMMERCIAL ALKALI METAL SILICATES	Panel-2	Panel-2
2840	28401100	DISODIUM TETRABORATE (REFINED BORAX) ANHYDROUS	Panel-2	Panel-2
2840	28401900	OTHER DISODIUM TETRABORATE	Panel-2	Panel-2
2840	28402010	MAGNESIUM BORATES	Panel-2	Panel-2
2840	28402090	OTHER BORATES; PEROXOBORATES (PERBORATES)	Panel-2	Panel-2
2840	28403000	PEROXOBORATES (PERBORATES)	Panel-2	Panel-2
2841	28413000	SODIUM DICHROMATE	Panel-2	Panel-2
2841	28411010	SODIUM ALUMINATE	Panel-2	Panel-2
2841	28411090	OTHER ALUMINATE	Panel-2	Panel-2
2841	28412010	CHROMATES OF ZINCE	Panel-2	Panel-2
2841	28412020	CHROMATES OF LEAD	Panel-2	Panel-2
2841	28413000	SODIUM DICHROMATE	Panel-2	Panel-2
2841	28415010	SODIUM CHROMATES	Panel-2	Panel-2
2841	28415090	OTHER CHROMATES AND DICHROMATES/PEROXOCHROMATES	Panel-2	Panel-2
2841	28416100	POTASSIUM PERMANGANATE	Panel-2	Panel-2
2841	28416900	OTHER MANGANITES, MANGANITES AND PERMANGANATES	Panel-2	Panel-2
2841	28417010	ALUMINIUM MOLYBDATE	Panel-2	Panel-2

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2841	28417020	SODIUM MOLYBDATE	Panel-2	Panel-2
2841	28417090	OTHER MOLYBDATES	Panel-2	Panel-2
2841	28418010	SODIUM TUNGSTATE	Panel-2	Panel-2
2841	28418020	MAGNESIUM TUNGSTATE	Panel-2	Panel-2
2841	28418090	OTHER TUNGSTATE (WOLFRAMATES)	Panel-2	Panel-2
2841	28419000	OTHER SALTS OF OXOMETTALIC OR PEROXOMETALLIC ACIDS, N.E.S.	Panel-2	Panel-2
2842	28421000	ALUMINO SILICATES	Panel-2	Panel-2
2842	28429010	ARSENITES AND ARSENATES	Panel-2	Panel-2
2842	28429020	BICHROMATES/DICHROMATES	Panel-2	Panel-2
2842	28429090	OTHER SALTS OF INORGANIC ACIDS OR PEROXOACIDS	Panel-2	Panel-2
2843	28431010	COLLOIDIAL PRECIOUS METALS OF GOLD	Panel-2	Panel-2
2843	28431020	COLLOIDAL PRECIOUS METALS OF SILVER	Panel-2	Panel-2
2843	28431090	OTHER COLLOIDAL PRECIOUS METALS	Panel-2	Panel-2
2843	28432100	SILVER NITRATE	Panel-2	Panel-2
2843	28432900	OTHER COMPOUNDS OF SILVER	Panel-2	Panel-2
2843	28433000	GOLD COMPOUND	Panel-2	Panel-2
2843	28439011	SODIUM AUROUS THIOSULPHATE	Panel-2	Panel-2
2843	28439012	NOBLE METAL SOLUTIONS OF PLATINUM, RHODIUM AND PALLADIUM	Panel-2	Panel-2
2843	28439019	OTHER COMPOUNDS AMALGAMY	Panel-2	Panel-2
2844	28443021	THORIUM OXIDE	Panel-2	Panel-2
2844	28443022	THORIUM HYDROXIDE	Panel-2	Panel-2
2844	28443023	THORIUM NITRATE	Panel-2	Panel-2
2844	28443029	OTHER COMPOUNDS OF THORIUM	Panel-2	Panel-2
2844	28443090	OTHER COMPOUNDS OF URANIUM	Panel-2	Panel-2
2844	28445000	SPENT (IRRADIATED) FUEL ELEMENTS (CARTRIDGES) OF NUCLEAR REACTOR	Panel-2	Panel-2
2845	28451000	HEAVY WATER (DEUTERIUM OXIDE)	Panel-2	Panel-2
2846	28461010	CERIUM OXIDES	Panel-2	Panel-2
2846	28461090	OTHER CERIUM COMPOUNDS	Panel-2	Panel-2
2846	28469010	RARE EARTH OXIDES NOT ELSEWHERE INCLUDED OR SPECIFIED	Panel-2	Panel-2
2846	28469020	RARE EARTH FLUORIDES NOT ELSEWHERE INCLUDED OR SPECIFIED	Panel-2	Panel-2
2846	28469030	RARE EARTH CHLORIDES NOT ELSEWHERE INCLUDED OR SPECIFIED	Panel-2	Panel-2
2846	28469090	OTHER COMPOUNDS,INORGANIC/ORGANIC OF RARE EARTH METALS	Panel-2	Panel-2
2847	28470000	HYDROGEN PEROXIDE W/N SOLIDIFIED WITH UREA	Panel-2	Panel-2
2848	28480010	PHOSPHIDES OF COPPER (PHOSPHOR COPPER) CONTAINING MORE THAN 15% BY WEIGHT OF PHOSPHORUS	Panel-2	Panel-2
2848	28480020	ZINC PHOSPHIDES, WHETHER NOT CHEMICALLY DEFINED EXCLUDING FERRO PHOSPHORUS	Panel-2	Panel-2

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2848	28480090	OTHER PHOSPHIDES WHETHER OR NOT CHEMICALLY DEFINED EXCLUDING FERRO PHOSPHORUS	Panel-2	Panel-2
2849	28491000	CARBIDES OF CALCIUM W/N CHEMICALLY DEFINED	Panel-2	Panel-2
2849	28492010	CARBORANDUM	Panel-2	Panel-2
2849	28492090	OTHER CARBIDES OF SILICON	Panel-2	Panel-2
2849	28499020	TUNGSTEN CARBIDE	Panel-2	Panel-2
2850	28500010	HYDRIDES (WHETHER OR NOT CHEMICALLY DEFINED OTHER THAN COMPOUNDS WHICH ARE ALSO CARBIDES)	Panel-2	Panel-2
2850	28500020	NITRIDES	Panel-2	Panel-2
2850	28500030	AZIDES (WHETHER OR NOT CHEMICALLY DEFINED OTHER THAN COMPOUNDS WHICH ARE ALSO CARBIDES)	Panel-2	Panel-2
2850	28500041	CALCIUM SILICIDE	Panel-2	Panel-2
2850	28500049	OTHER SILICIDES	Panel-2	Panel-2
2850	28500050	BORIDES	Panel-2	Panel-2
2852	28520000	COMPOUNDS INORGANIC OR ORGANIC OF MERCURRY, EXCL. AMALGAMS	Panel-2	Panel-2
2853	28530010	DISTILLED OR CONDUCTIVITY WATER AND WATER OF SIMILAR PURITY	Panel-2	Panel-2
2853	28530020	LIQUID AIR (WHETHER OR NOT ANY FRACTION OF RARE GASES HAS BEEN REMOVED)	Panel-2	Panel-2
2853	28530030	COMPRESSED AIR	Panel-2	Panel-2
2853	28530099	OTHER INORGANIC COMPOUNDS N.E.S.	Panel-2	Panel-2
2901	29011000	SATURATED ACYCLIC HYDRO CARBON	Panel-2	Panel-2
2901	29012100	UNSATURATED ETHYLENE	Panel-2	Panel-2
2901	29012200	UNSATURATED PROPENE (PROPYLENE)	Panel-2	Panel-2
2901	29012300	UNSATURATED BUTENE (BUTYLENE AND ISOMERS THEREOF)	Panel-2	Panel-2
2901	29012400	BUTA-1, 3-DIENE AND ISOPRENE	Panel-2	Panel-2
2901	29012910	ACETYLENE, WHETHER OR NOT IN DISSOLVED CONDITION	Panel-2	Panel-2
2901	29012920	HEPTENE (HEPTYLENE)	Panel-2	Panel-2
2901	29012990	OTHER ACYCLIC HYDROCARBONS	Panel-2	Panel-2
2902	29021100	CYCLOHEXANE	Panel-2	Panel-2
2902	29021900	OTHER CYCLANES, CYCLENES AND CYCLOTERPENES	Panel-2	Panel-2
2902	29022000	BENZENE	Panel-2	Panel-2
2902	29023000	TOLUENE	Panel-2	Panel-2
2902	29024100	O-XYLENE	Panel-2	Panel-2
2902	29024200	M-XYLENE	Panel-2	Panel-2
2902	29024300	P-XYLENE	Panel-2	Panel-2
2902	29024400	MIXED XYLENE ISOMERS	Panel-2	Panel-2
2902	29025000	STYRENE	Panel-2	Panel-2
2902	29026000	ETHYL BENZENE	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2902	29027000	CUMENE	Panel-1	Panel-2
2902	29029010	DIPENTENE	Panel-1	Panel-2
2902	29029020	DIPHENYL METHANE	Panel-1	Panel-2
2902	29029030	DODECYCL BENZENES (EXCL MIXED ALKYLARENES)	Panel-1	Panel-2
2902	29029040	NAPTHALENE PURE	Panel-2	Panel-2
2902	29029050	ISOBUTYL BENZENE	Panel-1	Panel-2
2902	29029090	OTHER CYCLIC HYDROCARBONS	Panel-2	Panel-2
2903	29031110	CHLOROMETHANE (METHYL CHLORIDE)	Panel-2	Panel-2
2903	29031120	CHLOROETHANE (ETHYL CHLORIDE)	Panel-2	Panel-2
2903	29031200	DICHLORO METHANE (METHYLENE CHLORIDE)	Panel-2	Panel-2
2903	29031400	CARBON TETRACHLORIDE	Panel-2	Panel-2
2903	29031500	1-2- DICHLO ETHENE (ETHYLENE DICHLORIDE)	Panel-2	Panel-2
2903	29031910	TETRA CHLORO ETHANE	Panel-2	Panel-2
2903	29031920	TRICHLOROETHANE	Panel-2	Panel-2
2903	29032100	VINYL CHLORIDE (CHLOROETHYLENE)	Panel-2	Panel-2
2903	29032200	TRICHLORO ETHYLENE	Panel-2	Panel-2
2903	29032300	TETRACHLORO ETHYLENE	Panel-2	Panel-2
2903	29032900	OTHER UNSATURATED CHLORINATED DERIVATIVES OF ACYLIC HYDRO CARBONS	Panel-2	Panel-2
2903	29033010	FLUORINATED DERIVATIVES	Panel-2	Panel-2
2903	29033020	BROMINATED DERIVATIVES	Panel-2	Panel-2
2903	29033030	IODINATED DERIVATIVES	Panel-2	Panel-2
2903	29034100	TRICHLORO FLUORO METHANE	Panel-2	Panel-2
2903	29034200	DICHLORO DIFLUORO METHENE	Panel-2	Panel-2
2903	29034300	TRICHLOROTRIFLUOROETHANES	Panel-2	Panel-2
2903	29034410	1,2 DICHLOROTETRAFLUOROETHANE	Panel-2	Panel-2
2903	29034420	CHLOROPENTAFLUOROETHANE	Panel-2	Panel-2
2903	29034490	OTHER DICHLOROTETRAFLUOROETHANES AND CHLOROPENTAFLUOROETHANE	Panel-2	Panel-2
2903	29034511	CHLORO TRIFLUOROMETHANE	Panel-2	Panel-2
2903	29034512	PENTACHLOROFLUOROETHANE	Panel-2	Panel-2
2903	29034513	TETRACHLORODIFLUOROETHANE	Panel-2	Panel-2
2903	29034521	HEPTACHLORODIFLUOROPRPPANE	Panel-2	Panel-2
2903	29034522	HEXACHLORODIFLUOROPROPANE	Panel-2	Panel-2
2903	29034523	PENTACHLOROTRIFLUOROPROPANE	Panel-2	Panel-2
2903	29034524	TETRACHLOROTETRAFLUOROPROPANE	Panel-2	Panel-2
2903	29034525	TRICHLOPENTAFLUOROPAROPANE	Panel-2	Panel-2
2903	29034526	DICHLOROHEXAFLUOROPROPANE	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2903	29034527	CHLOROPENTAFLUOROPROPANE	Panel-2	Panel-2
2903	29034590	OTHER CHLOROTRIFLUOROMETHANE, PENTACHLORO FLOROETHANE, TETRACHLORO DIFLUOROETHANE	Panel-2	Panel-2
2903	29034610	BROMOCHLORODIFLUOROMETHANE	Panel-2	Panel-2
2903	29034620	BROMOTRI-FLUROMETHANE	Panel-2	Panel-2
2903	29034630	DIBROMOTETRAFLUOROETHANES	Panel-2	Panel-2
2903	29034700	OTHER PERHALOGENATED DERIVATIVES	Panel-2	Panel-2
2903	29034910	HALOGENATED DERIVATIVES OF METHANE, ETHANE OR PRPPANE HALOGENATED ONLY WITH FLUORINE AND CHLORINE (HCFCS)	Panel-2	Panel-2
2903	29034990	OTHER HALOGENATE DERIVATIVES OF METHANE/ ETHANE/PROPANE	Panel-2	Panel-2
2903	29035100	1,2,3,4,5,6-HEXACHLOROCYCLOHEXANE INCLUDING LINDANE	Panel-2	Panel-2
2903	29035900	OTHER HALOGENATED DERIVATIVES OF CYCLANIC, CYCENIC OR CYCLOTERPENIC HYDROCARBONS	Panel-2	Panel-2
2903	29036110	CHLOROBENZENE(MONOCHLORO)	Panel-1	Panel-2
2903	29036120	ORTHO-DICHLOROBENZENE	Panel-1	Panel-2
2903	29036130	PARA DICHLOROBENZENE	Panel-1	Panel-2
2903	29036210	BENZENE HEXACHLORIDE OTHER THAN LINDANE (B.H.C.).	Panel-2	Panel-2
2903	29036221	D.D.T. (DICHLORO-DIPHENYL-TRICHLORO ETHANE)-TECHNICAL 75 WDP	Panel-2	Panel-2
2903	29036910	CHLORO-FLUORO BENZENE	Panel-2	Panel-2
2903	29036920	BENZAL CHLORIDE (BENZYL DICHLORIDE)	Panel-2	Panel-2
2903	29036930	BENZO TRICHLORIDE	Panel-2	Panel-2
2903	29036940	BENZYL CHLORIDE	Panel-2	Panel-2
2903	29036950	PARA CHLORO TOLUENE(4-CHLORO METHYL BENZENE)	Panel-2	Panel-2
2903	29036960	NAPTHALENE CHLORINATED	Panel-2	Panel-2
2903	29036970	CHLOROFLUORO ANILINE	Panel-2	Panel-2
2904	29041010	BENZENE SULPHONIC ACID	Panel-1	Panel-1
2904	29041020	1:5 NAPHTHALENE DISULPHONIC ACID (ARMSSTRONG'S ACID)	Panel-1	Panel-1
2904	29041030	NAPTHALENE SULPHONIC ACID	Panel-1	Panel-1
2904	29041040	VINYL SULPHONE	Panel-1	Panel-1
2904	29041090	OTHER DERIVATIVES CONTAINING ONLY SULPHO GROUPS THEIR SALTS AND ETHYL ESTERS	Panel-2	Panel-1
2904	29042010	NITROBENZENE	Panel-1	Panel-1
2904	29042020	META DINITROBENZENE	Panel-1	Panel-1
2904	29042030	META NITROTOLUENE	Panel-1	Panel-1
2904	29042040	ORTHO NITROTOLUENE	Panel-1	Panel-1
2904	29042050	PARA NITROTOLUENE	Panel-1	Panel-1
2904	29042060	DINITRO TOLUENE	Panel-1	Panel-1
2904	29042090	OTHER DERIVATIVES CONTG. ONLY NITRO/NITROSO GROUPS	Panel-2	Panel-1

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2904	29049010	2:5 DICHLORO NITROBENZENE	Panel-1	Panel-1
2904	29049020	DINITROCHLOROBENZENE	Panel-1	Panel-1
2904	29049030	METANITROCHLOROBENZENE	Panel-1	Panel-1
2904	29049040	ORHTO NITROCHLOROBENZENE	Panel-1	Panel-1
2904	29049050	PARA NITROCHLOROBENZENE	Panel-1	Panel-1
2904	29049060	2-NITRO CHLOROTOLUENE	Panel-1	Panel-1
2904	29049070	SODIUM META NITRO-BENZENE SULPHONATE	Panel-1	Panel-1
2904	29049080	CHLOROPICRIN (TRICHLORONITROMETHANE)	Panel-2	Panel-1
2904	29049090	OTHER SULPHONATED NITRATED OR NITROSATED DERIVATIVES	Panel-2	Panel-1
2905	29051100	SATURATED METHANOL (METHYL ALCOHOL)	Panel-1	Panel-2
2905	29051210	PROPYL ALCOHOL	Panel-2	Panel-2
2905	29051220	ISOPROPYL ALCOHOL	Panel-2	Panel-2
2905	29051300	SATURATED BUTAN-1-OL (N-BUTYL ALCOHOL)	Panel-2	Panel-2
2905	29051430	AMINO BUTANOL	Panel-2	Panel-2
2905	29051490	OTHER SATURATED BUTANOLS	Panel-2	Panel-2
2905	29051500	PENTANOL (AMYL ALCOHOL AND ISOMERS THEREOF)	Panel-2	Panel-2
2905	29051610	DIMETHYL OCTANOL	Panel-2	Panel-2
2905	29051620	2-ETHYL HEXANOL	Panel-2	Panel-2
2905	29051690	OTHER OCTANOL (OCTYL ALCOHOL) AND ISOMERS THEREOF	Panel-2	Panel-2
2905	29051700	DODECAN-1-OL (LAURYL ALCOHOL) HEXADECAN-1OL (CETYL ALCOHOL) AND OCTADECAN-1-OL (STEARYL ALCOHOL)	Panel-2	Panel-2
2905	29051910	2-BUTANOL, 3, 3-DIMETHYL	Panel-2	Panel-2
2905	29051990	OTHER SATURATED MONOHYDYDRIC ALCOHOL	Panel-2	Panel-2
2905	29052210	CITRANELLOL	Panel-2	Panel-2
2905	29052220	GERANIOL(ACYCLIC TURPENE ALCOHOL)	Panel-2	Panel-2
2905	29052230	LINALOOL	Panel-2	Panel-2
2905	29052240	RHODINOL	Panel-2	Panel-2
2905	29052290	OTHER UNSATURATED A CYCLIC TERPANE ALCOHOL	Panel-2	Panel-2
2905	29052900	OTHER UNSATURATED MONOHYDRIC ALCOHOLS	Panel-2	Panel-2
2905	29053100	ETHYLENE GLYCOL (ETHANEDIOL)	Panel-2	Panel-2
2905	29053200	PROPYLENE GLYCOL (PROPANE-1,2-DIOL)	Panel-2	Panel-2
2905	29053910	1,4/1,3/2, 3 BUTYLENE GLYCOL	Panel-2	Panel-2
2905	29054100	2-ETHYL-2-(HYDROXYMETHYL) PROPANE-1,3-DIOL (TRIMETHYLOLPROPANE)	Panel-2	Panel-2
2905	29054210	DIPENTA ERYTHRITOL	Panel-2	Panel-2
2905	29054290	OTHER PENTAERYTHRITOL	Panel-2	Panel-2
2905	29054300	MANNITOL	Panel-2	Panel-2

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2905	29054500	GLYCEROL (GLYCERINE)	Panel-1	Panel-2
2905	29054900	OTHER POLYHYDRIC ALCOHOLS	Panel-2	Panel-2
2905	29055100	ETHCHLORVYNOL (INN)	Panel-2	Panel-2
2905	29055900	OTHER ACYCLIC ALCOHOLS	Panel-2	Panel-2
2906	29061100	MENTHOL	Panel-2	Panel-2
2906	29061200	CYCLOHEXANOL METHYLCYCLOHEXANOLS AND DIMETHYLCYCLOHEXANOLS	Panel-2	Panel-2
2906	29061310	CHOLESTEROL	Panel-2	Panel-2
2906	29061390	OTHER STEROLS AND INOSITOLS	Panel-2	Panel-2
2906	29061400	TERPINEOUS	Panel-2	Panel-2
2906	29061910	BERNEOL	Panel-2	Panel-2
2906	29061990	OTHER CYCLANIC, CYCLENIC OR CYCLOTERPENIC	Panel-2	Panel-2
2906	29062100	BENZYL ALCOHOL	Panel-2	Panel-2
2906	29062910	CINNAMIC ALCOHOL	Panel-2	Panel-2
2906	29062920	PHENYL ETHYL ALCOHOL	Panel-2	Panel-2
2906	29062990	OTHER AROMATIC ALCOHOL	Panel-2	Panel-2
2907	29071110	PHENOL, PURE CARBOLIC ACID	Panel-2	Panel-2
2907	29071190	OTHER PHENOL (HYDROXY BENZENE) AND ITS SALTS	Panel-2	Panel-2
2907	29071210	PARA-CRESOLE (P-CRESOL)	Panel-1	Panel-2
2907	29071290	OTHER CRESOLS AND THEIR SALTS	Panel-2	Panel-2
2907	29071300	OCTYL PHENOL NONYL PHENOL AND THEIR ISOMERS SALTS THEREOF	Panel-2	Panel-2
2907	29071400	XYLENOLS AND THEIR SALTS	Panel-2	Panel-2
2907	29071510	ALPHA NAPHTHOL	Panel-1	Panel-2
2907	29071520	BETA NAPHTHOL	Panel-1	Panel-2
2907	29071590	OTHER NAPHTHOLS AND THEIR SALTS	Panel-2	Panel-2
2907	29071910	O-PHENYL PHENOLS	Panel-2	Panel-2
2907	29071920	P-PHENYL PHENOLS	Panel-2	Panel-2
2907	29071930	THYMOL	Panel-2	Panel-2
2907	29071940	PARA TARTIARY BUTYL PHENOL	Panel-2	Panel-2
2907	29071950	ALKYL PHENOLS	Panel-2	Panel-2
2907	29071990	OTHER MONOPHENOLS	Panel-2	Panel-2
2907	29072100	RESORCINOL AND ITS SALTS	Panel-1	Panel-2
2907	29072200	HYDROQUINONE (QUINOL) AND ITS SALTS	Panel-1	Panel-2
2907	29072300	4,4 ISOPROPYLIDENEDIPHENOL (BIS-PHENOL) A, DIPHENYLOLPROPANE AND ITS SALTS	Panel-2	Panel-2
2907	29072910	1:5 DIHYDROXY NAPHTHALENE	Panel-2	Panel-2
2907	29072990	OTHER POLYPHENOLS/PHENOL-ALCOHOLS	Panel-2	Panel-2
2908	29081000	DERIVATIVES CONTAINING ONLY HALOGEN SUBSTITUENTS AND THEIR SALTS	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2908	29082010	PHENOLS SULPHONIC ACIDS	Panel-2	Panel-2
2908	29082021	G.ACID (2-NAPJTHOL-6, 8-DISULPHONIC ACID)	Panel-1	Panel-2
2908	29082022	G.ACID SALTS	Panel-1	Panel-2
2908	29082023	BETA NAPHTHOL SULPHONIC ACID	Panel-1	Panel-2
2908	29082024	NEVILE-WINTHER ACID (1-NAPHTHOL 4 SULPHONIC ACID)	Panel-1	Panel-2
2908	29082025	SCHAEFFER ACID (2-NAPHTHOL-6-SULPHONIC ACID	Panel-1	Panel-2
2908	29082026	R.ACID (2-NAPHTHOL,3,6-DISULPHONIC) AND ITS DISODIUM SALT	Panel-1	Panel-2
2908	29082027	CHROMOTROPIC ACID (1,8-DIHYDROXYNAPHTHALENE-3,6-DISULPHONIC ACID)	Panel-2	Panel-2
2908	29082029	OTHER NAPHTHOL SULPHONIC ACIDS	Panel-1	Panel-2
2908	29089910	PARA NITRO PHENOL	Panel-1	Panel-2
2908	29089920	MUSK XYLOL	Panel-2	Panel-2
2908	29089990	OTHER HALOGENATED, SULPHONATED,NITRATED OR NITROSATED DERIVATIVES OF PHENOLS OR PHENOL-ALCOHOLS	Panel-1	Panel-2
2909	29091100	DIETHYL ETHER	Panel-2	Panel-2
2909	29091900	OTHER ACYCLIC ETHERS AND THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES	Panel-2	Panel-2
2909	29092000	CYCLAMIC CYCLENIC/CYCITPENC ETHERS AND THEIR HALOGENATED SULPHONATED NITRATED/NITROSATED DERIVATIVES	Panel-2	Panel-2
2909	29093011	4-CHLORO-2-NITROANISOL	Panel-1	Panel-2
2909	29093012	ORTHO NITRO ANISOLE	Panel-1	Panel-2
2909	29093019	OTHER ANISOLE AND THEIR DERIVATIVES	Panel-1	Panel-2
2909	29093020	DIPHENYL OXIDE	Panel-2	Panel-2
2909	29093030	MUSK AMBRETTE	Panel-2	Panel-2
2909	29094100	2,2 OXYDIETHANOL, (DIETHYLENE GLYCOL, DIGOL)	Panel-2	Panel-2
2909	29094200	MONOMETHYL ETHERS OF ETHYLENE GLYCOL OR OF ETHYLENE GLYCOL	Panel-2	Panel-2
2909	29094300	MONOBUTYL ETHERS OF ETHYLENE GLYCOL OR OF DIETHYLENE GLYCOL	Panel-2	Panel-2
2909	29094400	OTHER MONO ALKYL ETHERS OF ETHYLENE GLYCOL OR OF DIETHYLENE GLYCOL DERIVATIVES	Panel-2	Panel-2
2909	29095010	GUAIACOL	Panel-2	Panel-2
2909	29095020	ISOEUGENOL	Panel-2	Panel-2
2909	29095030	POTASSIUM GUAIACOL SULPHONATED	Panel-2	Panel-2
2909	29095090	OTHER ETHER-PHENOLS, ETHER ALCOHOL PHENOLS ANDTHEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED	Panel-2	Panel-2
2909	29096000	ALCOHOL PEROXIDES, ETHER PEROXIDES, KETONE PEROXIDES AND THEIR HALOGENATED, SULPHONATED ,NITRATED	Panel-2	Panel-2
2910	29101000	OXIRANE (ETHYLENE OXIDE)	Panel-2	Panel-2
2910	29102000	METHYL OXYRANE (PROPYLENE OXIDE)	Panel-2	Panel-2
2910	29103000	1-CHLORO 2,3-EPOXYPROPANE (EPICHLOROPHYDRIN)	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2910	29109000	OTHER EPOXIDES, EPOXY ALCOHOLS,EPOXYPHENOLS AND EPOXYETHERS, WITH A THREE MEMBERED RING	Panel-2	Panel-2
2911	29110010	ACETALS AND HEMIACETALS WHETHER OR NOT WITH OTHER OXYGEN FUNCTION	Panel-2	Panel-2
2911	29110090	OTHER DERIVATIVES OF ACETALS AND HEMIACETALS	Panel-2	Panel-2
2912	29121100	METHANAL (FORMALDEHYDE)	Panel-2	Panel-2
2912	29121200	ETHANAL (ACETALDEHYDE)	Panel-2	Panel-2
2912	29121300	BUTANOL (BUTYRALDEHYDE, NORMAL ISOMER)	Panel-2	Panel-2
2912	29121910	CROTONAL DEHYDRIDE	Panel-2	Panel-2
2912	29121920	HEPTALDEHYDE (HEPTANAL)	Panel-2	Panel-2
2912	29121930	GLYOXAL	Panel-2	Panel-2
2912	29121990	OTHER ACYCLIC ALDEHYDES WITHOUT OTHER OXYGEN FUNCTION	Panel-2	Panel-2
2912	29122100	BENZALDEHYDE	Panel-2	Panel-2
2912	29122910	CINNAMIC ALDEHYDE	Panel-2	Panel-2
2912	29122920	PHENYL ACETALDEHYDE	Panel-2	Panel-2
2912	29122990	OTHER CYCLIC ALDEHYDROUS WITHOUT OTHER FUNCTION	Panel-2	Panel-2
2912	29123000	ALDEHYDE ALCOHOLS	Panel-2	Panel-2
2912	29124100	VANILLIN (4-HYDROXY-3 METHOXY BENZALDEHYDE)	Panel-2	Panel-2
2912	29124200	ETHYLVANILLIN (3-ETHOXY-4-HYDROXY BENZALDEHYDE)	Panel-2	Panel-2
2912	29124910	ANISIC ALDEHYDE (ANISALDEHYDE)	Panel-2	Panel-2
2912	29124920	HELIOTROPIN (PIPERONYL, ALDEHYDE)	Panel-2	Panel-2
2912	29124930	THIACETAZONE	Panel-2	Panel-2
2912	29124940	3,4,5-TRIMETHOXY- BENZALDEHYDE	Panel-2	Panel-2
2912	29124990	OTHER ALDEHYDE-ETHERS, ALDEHEHYDE-PHENOLS AND ALDEHYDES WITH OTHER OXYGEN FUNCTION	Panel-2	Panel-2
2912	29125000	CYCLIC POLYMERS OF ALDEHYDES	Panel-2	Panel-2
2912	29126000	PARA FORMALDEHYDE	Panel-2	Panel-2
2913	29130010	ORTHO CHLORO BENZALDEHYDE	Panel-2	Panel-2
2913	29130090	OTHER HALOGENATED SULPHONATED , NITRATED OR NITROSATED DERIVATIVES OF PRODUCTS OF HEADING 2912	Panel-2	Panel-2
2914	29141100	ACETONE	Panel-2	Panel-2
2914	29141200	BUTANONE (METHYL- ETHYL-KETONE) (MEK)	Panel-2	Panel-2
2914	29141300	4-METHYLPENTAN-2-ONE (METHYL ISOBUTYL KETONE)	Panel-2	Panel-2
2914	29141910	ISOPHORON	Panel-2	Panel-2
2914	29141990	OTHER ACYCLIC KETONES WITHOUT OTHER OXYGEN FUNCTION	Panel-2	Panel-2
2914	29142110	NATURAL CAMPHOR	Panel-2	Panel-2
2914	29142120	SYNTHETIC CAMPHOR	Panel-2	Panel-2
2914	29142200	CYCLOHEXANONE AND METHYL CYCLOHEXANONES	Panel-2	Panel-2
2914	29142310	BETA- IONONE	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2914	29142320	PSEUDO IONONE	Panel-2	Panel-2
2914	29142390	OTHER IONONES AND METHYLIONONES	Panel-2	Panel-2
2914	29142910	L-CARAVONE	Panel-2	Panel-2
2914	29142990	OTHER CYCLANIC CYCLENIC/CYCLOTERPENIC KETONES WITHOUT OTHER OXYGEN FUNCTION	Panel-2	Panel-2
2914	29143100	PHENYLACETONE (1-PHENYL-2-PROPANONE)	Panel-2	Panel-2
2914	29143910	ACETONE PHENONE	Panel-2	Panel-2
2914	29143920	BENZANTHRONE	Panel-1	Panel-2
2914	29143930	BENZOPHENONE	Panel-2	Panel-2
2914	29143940	DIBENZANTHRONE (VIOLANTHRONE)	Panel-1	Panel-2
2914	29144000	KETONE ALCOHOLS AND KETONE ALDEHYDES	Panel-2	Panel-2
2914	29145000	KETONE-PHENOLS AND KETONES WITH OTHER OXYGEN FUNCTION	Panel-2	Panel-2
2914	29146100	ANTHRAQUINONE	Panel-1	Panel-2
2914	29146910	1:4 DIHYDROXY ANTHRAQUINONE (QUINIZARIN)	Panel-1	Panel-2
2914	29146920	METHYL ANTHRAQUINONE	Panel-1	Panel-2
2914	29146990	OTHER QUINONES	Panel-2	Panel-2
2914	29147010	1-CHLORO ANTHRAQUINONE	Panel-1	Panel-2
2914	29147020	MUSK KETONE	Panel-2	Panel-2
2914	29147090	OTHER HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES	Panel-2	Panel-2
2915	29151100	FORMIC ACID	Panel-2	Panel-2
2915	29151210	SODIUM FORMATE	Panel-2	Panel-2
2915	29151290	OTHER SALTS OF FORMIC ACIDS	Panel-2	Panel-2
2915	29151300	ESTERS OF FORMIC ACID	Panel-2	Panel-2
2915	29152100	ACETIC ACID	Panel-2	Panel-2
2915	29152200	SODIUM ACETATE	Panel-2	Panel-2
2915	29152300	COBALT ACETATE	Panel-2	Panel-2
2915	29152400	ACETIC ANHYDRIDE	Panel-2	Panel-2
2915	29152910	CALCIUM ACETATE	Panel-2	Panel-2
2915	29152920	MAGNESIUM ACETATE	Panel-2	Panel-2
2915	29152930	MANGANESE ACETATE	Panel-2	Panel-2
2915	29152990	OTHER ACETIC ACID AND ITS SALTS; ACETIC ANHYDRIDE	Panel-2	Panel-2
2915	29153100	ETHYL ACETATE	Panel-2	Panel-2
2915	29153200	VINYL ACETATE	Panel-2	Panel-2
2915	29153300	N-BUTYL ACETATE	Panel-2	Panel-2
2915	29153400	ISOBUTYL ACETATE	Panel-2	Panel-2
2915	29153500	2-ETHOXY ETHYL ACETATE	Panel-2	Panel-2
2915	29153910	BENZYL ACETATE	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2915	29153920	BORNYL ACETATE/ AND ISO BORNYL ACETATE	Panel-2	Panel-2
2915	29153930	LINALYL ACETATE	Panel-2	Panel-2
2915	29153940	METHYL ACETATE	Panel-2	Panel-2
2915	29153950	PHENYL PROPYL ACETATE	Panel-2	Panel-2
2915	29153960	TERPINYL ACETATE	Panel-2	Panel-2
2915	29153990	OTHER ESTERS OF ACETIC ACID	Panel-2	Panel-2
2915	29154010	MONOCHLORO ACETIC ACID, THEIR SALTS AND ESTERS	Panel-2	Panel-2
2915	29154020	DICHLORO ACETIC ACID THEIR SALTS AND ESTERS	Panel-2	Panel-2
2915	29154030	TRICHLORO ACETIC ACID THEIR SALTS AND ESTERS	Panel-2	Panel-2
2915	29155000	PROPIONIC ACID, ITS SALTS AND ESTERS	Panel-2	Panel-2
2915	29156010	BUTANOIC ACIDS, ITS SALTS AND ESTERS	Panel-2	Panel-2
2915	29156020	PENTANOIC ACIDS, THEIR SALTS AND ESTERS	Panel-2	Panel-2
2915	29157010	PALMITIC ACID	Panel-3	Panel-2
2915	29157020	STEARIC ACID	Panel-3	Panel-2
2915	29157030	GLYCEROL MONO STEARATE	Panel-2	Panel-2
2915	29157040	HCO FATTY ACID(INCLUDING 12-HYDROXY STEARIC ACID)	Panel-3	Panel-2
2915	29157050	D.C.O. FATTY ACID	Panel-3	Panel-2
2915	29157090	OTHER PALMITIC ACID, STEARIC ACID THEIR SALTS AND ESTERS	Panel-2	Panel-2
2915	29159010	ACETYL CHLORIDE	Panel-2	Panel-2
2915	29159020	OCTOIC ACID (CAPRYLIC ACID)	Panel-2	Panel-2
2915	29159030	HEXOIC ACID (CAPROIC ACID)	Panel-2	Panel-2
2915	29159090	OTHER SATURATED ACYCLIC MONOCARBOXYLIC ACIDS ETC. & THEIR DERIVATIVES	Panel-2	Panel-2
2916	29161100	ACRYLIC ACID AND ITS SALTS	Panel-2	Panel-2
2916	29161210	BUTYL ACRYLATE	Panel-2	Panel-2
2916	29161290	OTHER ESTERS OF ACRYLIC ACIDS	Panel-2	Panel-2
2916	29161310	METHACRYLIC ACID	Panel-2	Panel-2
2916	29161320	SALTS OF METHACRYLIC ACID	Panel-2	Panel-2
2916	29161400	ESTERS OF METHACRYLIC ACID	Panel-2	Panel-2
2916	29161510	OLEIC ACID (OLEIC LINOLEIC ACID)	Panel-2	Panel-2
2916	29161590	OTHER OLEIC, LINOLEIC OR LINOLENIC ACIDS, THEIR SALTS AND ESTERS	Panel-2	Panel-2
2916	29161910	UNDECYLENIC ACID	Panel-2	Panel-2
2916	29161920	BISMUTH COMPOUNDS OF UNSATURATED ACYCLIC MONOACIDS	Panel-2	Panel-2
2916	29161930	POTASSIUM COMPOUNDS OF UNSATURATED ACYCLIC MONO ACIDS	Panel-2	Panel-2
2916	29161940	SODIUM COMPOUNDS OF UNSATURATED ACYCLIC MONOACIDS	Panel-2	Panel-2
2916	29161950	ESTERS OF UNSATURATED ACYLIC MONOACIDS	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2916	29161960	SORBIC ACID	Panel-2	Panel-2
2916	29161990	OTHER UNSATURATED ACYCLIC MONOCARBOXYLIC ACIDS, THEIR ANHYDRIDES, HALIDES, PEROXIDES, PEROXYACIDS	Panel-2	Panel-2
2916	29162000	CYCLANIC, CYCLANIC/CYCLOTRPNC MONOCARBOXYLIC ACIDS, THEIR ANHYDRIDES, HALIDES, PEROXIDES, PEROXYACID	Panel-2	Panel-2
2916	29163110	BENZOIC ACID	Panel-2	Panel-2
2916	29163120	BENZYL BENZOATE	Panel-2	Panel-2
2916	29163130	METHYL BENZOATE	Panel-2	Panel-2
2916	29163140	SODIUM BENZOATE	Panel-2	Panel-2
2916	29163150	BENZOCAINE (ETHYLPARAAMINO BENZOATE)	Panel-2	Panel-2
2916	29163160	ORTHOCHLORO BENZOIC ACID	Panel-2	Panel-2
2916	29163190	OTHER BENZOIC ACID, ITS SALTS AND ESTERS	Panel-2	Panel-2
2916	29163200	BENZYL PEROXIDE AND BENZOYL CHLORIDE	Panel-2	Panel-2
2916	29163400	PHENYL ACETIC ACID AND ITS SALTS	Panel-2	Panel-2
2916	29163500	ESTERS OF PHENYL ACETIC ACID	Panel-2	Panel-2
2916	29163910	CINNAMIC ACID	Panel-2	Panel-2
2916	29163920	BISMUTH COMPOUNDS OF AROMATIC MONOACIDS	Panel-2	Panel-2
2916	29163930	POTASSIUM COMPOUNDS OF AROMATIC MONOACIDS	Panel-2	Panel-2
2916	29163940	SODIUM COMPOUNDS OF AROMATIC MONOACIDS	Panel-2	Panel-2
2916	29163950	ESTERS OF AROMATIC MONOACIDS	Panel-2	Panel-2
2916	29163990	OTHER AROMATIC MONOCARBOXYLIC ACIDS, THEIR ANHYDRIDES, HALIDES, PEROXIDES, PEROXYACIDS AND THEIR DERIVATIVES	Panel-2	Panel-2
2917	29171110	OXALIC ACID	Panel-2	Panel-2
2917	29171120	CALCIUM OXALATE	Panel-2	Panel-2
2917	29171130	STRONTIUM OXALATE	Panel-2	Panel-2
2917	29171140	DIETHYL OXALATE	Panel-2	Panel-2
2917	29171190	OTHER SALTS AND ESTERS OF OXALIC ACID	Panel-2	Panel-2
2917	29171200	ADIPIC ACID ITS SALTS AND ESTERS	Panel-2	Panel-2
2917	29171300	AZELAIC ACID, SEBACIC ACID, THEIR SALTS AND ESTERS	Panel-2	Panel-2
2917	29171400	MALEIC ANHYDRIDE	Panel-2	Panel-2
2917	29171910	MALEIC ACID	Panel-2	Panel-2
2917	29171920	MALONIC ACID	Panel-2	Panel-2
2917	29171930	SUCCINIC ACID	Panel-2	Panel-2
2917	29171940	FERROUS FUMARATE	Panel-2	Panel-2
2917	29171950	FUMARIC ACID	Panel-2	Panel-2
2917	29171960	ITACONIC ACID	Panel-2	Panel-2
2917	29171970	ETHOXYMETHYLENE MALONATE DIETHYL MALONATE	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2917	29171990	OTHER ACYCLIC POLYCARBOXYLIC ACIDS; THEIR ANHYDRIDES,HALIDES,PEROXIDES,PEROXY ACIDS AND THEIR DERIVA	Panel-2	Panel-2
2917	29172000	CYCLANIC, CYCLENIC OR CYCLOTERPENIC, POLYCARBOXYLIC ACIDS, THEIR ANHYDRIDES, HALIDES, PEROXIDES, PEROXYACIDS AND THEIR DERIVATIVES	Panel-2	Panel-2
2917	29173100	DIBUTYL ORTHO PHTHALATES	Panel-2	Panel-2
2917	29173200	DIOCTYL ORTHO PHTHALATES	Panel-2	Panel-2
2917	29173300	DINONYL OR DIDECYL ORTHO PHTHALATES	Panel-2	Panel-2
2917	29173400	OTHER ESTERS OF ORTHO PHTHALIC ACID	Panel-2	Panel-2
2917	29173500	PHTHALIC ANHYDRIDE	Panel-1	Panel-2
2917	29173600	TERPHTHALIC ACID AND ITS SALTS	Panel-2	Panel-2
2917	29173700	DIMETHYL TEREPHTHALATE	Panel-2	Panel-2
2917	29173910	DIBUTYL PHTHALATE	Panel-2	Panel-2
2917	29173920	DIOCTYL PHTHALATE	Panel-2	Panel-2
2917	29173930	PHTHALIC ACID	Panel-2	Panel-2
2917	29173940	DIMETHYL PHTHALATE	Panel-2	Panel-2
2917	29173950	TRIMELLITIC ANHYDRIDE	Panel-2	Panel-2
2917	29173960	ISOPHTHALIC ACID	Panel-2	Panel-2
2917	29173990	OTHER AROMATIC POLYCARBOXYLIC ACIDS, THEIR ANHYDRIDES,HALIDES, PEROXIDES, PEROXYACIDS AND THEIR DERIVATIVES	Panel-2	Panel-2
2918	29181110	LACTIC ACID	Panel-2	Panel-2
2918	29181120	CALCIUM LACTATE	Panel-2	Panel-2
2918	29181190	OTHERS SALTS AND ESTERS OF LACTIC ACID	Panel-2	Panel-2
2918	29181200	TARTARIC ACID	Panel-2	Panel-2
2918	29181310	POTASSIUM BITARTRATE	Panel-2	Panel-2
2918	29181320	METROPROLOL TARTRATE	Panel-2	Panel-2
2918	29181390	OTHER SALTS AND ESTERS OF TARTARIC ACID	Panel-2	Panel-2
2918	29181400	CITRIC ACID	Panel-2	Panel-2
2918	29181510	POTASSIUM CITRATE	Panel-2	Panel-2
2918	29181520	SODIUM CITRATE	Panel-2	Panel-2
2918	29181530	BISMUTH CITRATE	Panel-2	Panel-2
2918	29181540	DISODIUMHYDROGEN CITRATE	Panel-2	Panel-2
2918	29181550	FERRIC AMMONIUM CITRATE	Panel-2	Panel-2
2918	29181590	OTHER SALTS AND ESTERS OF CITRIC ACID	Panel-2	Panel-2
2918	29181610	CALCIUM GLUCONATE	Panel-2	Panel-2
2918	29181620	FERROUS GLUCONATE	Panel-2	Panel-2
2918	29181690	OTHER GLUCONIC ACID, ITS SALTS AND ESTERS	Panel-2	Panel-2
2918	29182110	SALICYLIC ACID	Panel-1	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2918	29182120	SODIUM SALICYLATE	Panel-1	Panel-2
2918	29182190	OTHER SALICYLIC ACID AND ITS SALTS	Panel-2	Panel-2
2918	29182200	O-ACETY SALICYLIC ACID, ITS SALTS AND ESTERS	Panel-2	Panel-2
2918	29182310	METHYL SALICYLATE	Panel-2	Panel-2
2918	29182320	AMINO SALICYLATE	Panel-2	Panel-2
2918	29182330	SALICYLAMIDE	Panel-2	Panel-2
2918	29182390	OTHER ESTERS OF SALICYLIC ACID AND THEIR SALTS	Panel-2	Panel-2
2918	29182910	GALLIC ACID	Panel-2	Panel-2
2918	29182920	BETA HYDROXY NAPHTHOIC ACID	Panel-1	Panel-2
2918	29182930	PROPYL GALLATE	Panel-2	Panel-2
2918	29182990	OTHER CARBOXYLIC ACIDS WITH PHENOL FUNCTION, BUT WITHOUT OTHER OXYGEN FUNCTION	Panel-2	Panel-2
2918	29183010	LEVULINIC ACID	Panel-2	Panel-2
2918	29183020	ETHYL ACETO ACETATE (ACETO ACETIC ESTER)	Panel-2	Panel-2
2918	29183030	NALIDIXIC ACID	Panel-2	Panel-2
2918	29183040	METHYL ACETO ACETATE	Panel-2	Panel-2
2918	29183090	OTHER CARBOXYLIC ACIDS WITH ALDEHYDE OR KETONE FUNCTION BUT WITHOUT OTHER OXYGEN FUNCTION	Panel-2	Panel-2
2919	29199010	GLYCEROPHOSPHORIC ACID	Panel-2	Panel-2
2919	29199020	CALCIUM GLYCEROPHOSPHATE	Panel-2	Panel-2
2919	29199030	IRON GLYCEROPHOSPHATE	Panel-2	Panel-2
2919	29199040	SODIUM GLYCEROPHOSPHATE	Panel-2	Panel-2
2919	29199050	TRYCRESYL PHOSPHATE	Panel-2	Panel-2
2919	29199090	OTHER PHOSPHORIC ESTERS & THEIR SALT INCLUDING LACTOPHOSPHATES THEIR HALOGENATED SULPHONATED NITRATED/NITROSATED DERIVTIVES	Panel-2	Panel-2
2920	29201000	THIOPHOSPHORIC ESTERS (PHOSPHOROTHIOATS) AND THEIR SALTS	Panel-2	Panel-2
2920	29209010	DIETHYL SULPHATE	Panel-2	Panel-2
2920	29209020	DIMETHYL SULPHATE	Panel-2	Panel-2
2920	29209030	TRIS (2,3 DIBROMOPROPYL) PHOSPHATE	Panel-2	Panel-2
2920	29209041	TRIMETHYL PHOSPHATE	Panel-2	Panel-2
2920	29209042	TRIETHYL PHOSPHATE	Panel-2	Panel-2
2920	29209090	OTHER ESTERS OF INORGANIC ACIDS OF NON-METALS (EXCLUDING ESTERS OF HYDROGEN HALIDES) AND THEIR SALTS;THEIR HALOGENATED, SULPHONATED, NITRATED OR NITROSATED DERIVATIVES	Panel-2	Panel-2
2921	29211110	DIMETHYL FORMAMIDE (DMF)	Panel-2	Panel-2
2921	29211190	FORMAMIDE N.E.S.	Panel-2	Panel-2
2921	29211200	DIETHYLAMINE AND ITS SALTS	Panel-2	Panel-2
2921	29211911	2-CHLORO N, N-DI-OSOPROPYL ETHYLAMINE	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2921	29211912	N,N-DIETHYL AMINO ETHYL CHLORIDE HYDROCHLORIDE	Panel-2	Panel-2
2921	29211913	DI-METHYL AMINO ETHYL CHLORIDE HYDROCHLORIDE	Panel-2	Panel-2
2921	29211990	OTHER ACYCLIC MONOAMINES AND THEIR DERIVATIVES, SALTS THEREOF	Panel-2	Panel-2
2921	29212100	ETHYLENEDIAMINE AND ITS SALTS	Panel-2	Panel-2
2921	29212200	HEXAMETHYLENEDIAMINE AND ITS SALTS	Panel-2	Panel-2
2921	29212910	HEXAMETHYLENE TETRAMINE (HEXAMINE) NOT PUT UP AS FUEL OR MEDICAMENT	Panel-2	Panel-2
2921	29212920	TRIMETHYLENE TRINIFRAMINE	Panel-2	Panel-2
2921	29212990	OTHER ACYCLIC POLYAMINES AND THEIR DERIVATIVES; SALTS THEREOF	Panel-2	Panel-2
2921	29213010	CYCLOHEXYLAMINE	Panel-2	Panel-2
2921	29213090	OTHERS CYCLANIC CYCLENIC/CYCLOTRPNC MONO-OR POLYAMINES AND THEIR DERIVATIVES,SALTS THEREOF	Panel-2	Panel-2
2921	29214110	ANILINE	Panel-1	Panel-2
2921	29214120	ANILINE HYDROCHLORIDE	Panel-1	Panel-2
2921	29214190	OTHERS ANILINE AND ITS SALTS	Panel-2	Panel-2
2921	29214211	PARACHLORO ANILINE	Panel-1	Panel-2
2921	29214212	ORTHO CHLORO PARANITROANILINE	Panel-1	Panel-2
2921	29214213	DICHLOROANILINE	Panel-1	Panel-2
2921	29214214	2:6-DICHLORO PARANITROANILINE	Panel-1	Panel-2
2921	29214215	2-4-5-TRICHLORO ANILINE	Panel-1	Panel-2
2921	29214221	BENZYL ETHYL ANILINE	Panel-1	Panel-2
2921	29214222	DIETHYLANILINE	Panel-1	Panel-2
2921	29214223	DIMETHYL ANILINE	Panel-1	Panel-2
2921	29214224	ETHYL ANILINE	Panel-1	Panel-2
2921	29214225	META NITROANILINE	Panel-1	Panel-2
2921	29214226	PARANITROANILINE	Panel-1	Panel-2
2921	29214231	2-AMINO 3:5 XYLENE SULPHONIC ACID	Panel-1	Panel-2
2921	29214232	BENZYL ETHYL ANILINE SULPHONIC ACID	Panel-1	Panel-2
2921	29214233	METANILIC ACID (META AMINOBENZIENE SULPHONIC ACID)	Panel-1	Panel-2
2921	29214234	SULPHANILIC ACID (PARA AMINOBENZENE SULPHONIC ACID	Panel-1	Panel-2
2921	29214235	ETHYL HYDROXY ETHYLANILINE	Panel-1	Panel-2
2921	29214310	DIETHYL TOLUIDINE	Panel-1	Panel-2
2921	29214320	DIMETHYL TOLUIDINE	Panel-1	Panel-2
2921	29214330	ORTHO TOLUIDINE	Panel-1	Panel-2
2921	29214340	META TOLUIDINE	Panel-1	Panel-2
2921	29214350	PARA TOLUIDINE	Panel-1	Panel-2
2921	29214360	2-CHLORO-5-TOLUIDINE-4-SULPHONIC ACID	Panel-1	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2921	29214370	2-CHLORO-4-TOLUIDINE-5-SULPHONIC ACID (SODIUM SALT)	Panel-1	Panel-2
2921	29214380	4-TOLUIDINE-3-SULPHONIC ACID	Panel-1	Panel-2
2921	29214390	OTHER TOLUIDINES & THEIR DERIVATIVES; SALTS THEREOF	Panel-1	Panel-2
2921	29214410	DIPHENYLAMINE	Panel-1	Panel-2
2921	29214490	OTHER DIPHENYLAMINE AND ITS DERIVATIVES, SALTS THEREOF	Panel-2	Panel-2
2921	29214511	ALPHA NAPHTHYLAMINE	Panel-1	Panel-2
2921	29214512	PHENYL ALPHA NAPHTHLAMINE	Panel-1	Panel-2
2921	29214513	PHENYL BETA NAPHTHYLAMINE	Panel-1	Panel-2
2921	29214514	AMINO F-ACID	Panel-1	Panel-2
2921	29214515	AMINOLINELI-R-ACID	Panel-1	Panel-2
2921	29214516	SODIUM NAPHTHIONATE	Panel-1	Panel-2
2921	29214521	BRONNER'S ACID (2-NAPHTHYLAMINE-6, SULPHONIC ACID)	Panel-1	Panel-2
2921	29214522	CLEVE'S ACID (1 NAPHTHYLAMINE-6 SULPHONIC ACID)	Panel-1	Panel-2
2921	29214523	EPSILION ACID (1-NAPHTHYLAMINE-3, 8-DISULPHONIC ACID)	Panel-1	Panel-2
2921	29214524	KOCH'S ACID (1-NAPHTHYLAMINE-3,6,8-TRISULPHONIC ACID)	Panel-1	Panel-2
2921	29214525	LAURENT'S ACID (1-NAPHTHYLAMINE-5-SULPHONIC ACID)	Panel-1	Panel-2
2921	29214526	TOBIAS ACID (2-NAPHTHYLAMINE-1-SULPHONIC ACID)	Panel-1	Panel-2
2921	29214531	NAPTHIONIC ACID (1-NAPHTHYLAMINE 4-SULPHONIC ACID)	Panel-1	Panel-2
2921	29214532	PARA TOLYL PERI ACID (PARA TOLYL-1-NAPHTHYLAMINE-8-SULPHONIC ACID	Panel-1	Panel-2
2921	29214533	PHENYL PERI ACID (PHENYL-1-NAPHTHYLAMINE- 8 SULPHONIC ACID	Panel-1	Panel-2
2921	29214590	OTHER 1-NAPHTHYLAMINES 2-NAPHTHYLAMINE THEIR DERIVATIVES AND SALTS THEREOF	Panel-1	Panel-2
2921	29214600	AMFETAMINE (INN),BENZFETAMINE-DEXAMFETAMINE (INN), ETILAMFETAMINE (INN) FENCAMFAMIN (INN), LEFETAMINE (INN), LEVAMFETAMINE (INN), MEFENOREX (INN) AND PHENTERMINE (INN) SALTS THEREOF	Panel-2	Panel-2
2921	29214910	XYLIDINES	Panel-1	Panel-2
2921	29214990	OTHER AROMATIC MONO AMINES & THEIR DERIVATIVES & SALTS	Panel-2	Panel-2
2921	29215110	O-PHENYLENEDIAMINE	Panel-1	Panel-2
2921	29215120	M-PHENYLENEDIAMINE (M-DIAMINOBENZENE)	Panel-1	Panel-2
2921	29215130	P-PHENYLENEDIAMINE	Panel-1	Panel-2
2921	29215140	O-DIAMINO TOLUENE	Panel-1	Panel-2
2921	29215150	M-DIAMINO TOLUENE	Panel-1	Panel-2
2921	29215160	P-DIAMINO TOLUENE	Panel-1	Panel-2
2921	29215170	PARA AMINO ACETANILIDE	Panel-1	Panel-2
2921	29215180	META TOLUYLENE DIAMINE	Panel-1	Panel-2
2921	29215190	OTHER O/M/P-PHENYLENEDIAMINE, DIAMINOTOLUENE AND THEIR DERIVATIVES SALTS THEREOF	Panel-1	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2921	29215910	BENZIDINE	Panel-1	Panel-2
2921	29215920	BENZIDINE DIHYDROCHLORIDE	Panel-1	Panel-2
2921	29215930	3:3 DICHLOROBENZIDINE DIHYDROCHLORIDE SULPHATE	Panel-1	Panel-2
2921	29215990	OTHER AROMATIC POLYAMINES & THEIR DERIVATIVES & SALTS	Panel-2	Panel-2
2922	29221100	MONO ETHANOLAMINE AND ITS SALTS	Panel-2	Panel-2
2922	29221190	OTHER MONOETHANOLAMINE AND ITS SALTS	Panel-2	Panel-2
2922	29221200	DIETHANOLAMINE AND ITS SALTS	Panel-2	Panel-2
2922	29221212	METHYL DIETHANOLAMINE	Panel-2	Panel-2
2922	29221290	OTHER DIETHANOLAMINE AND ITS SALTS	Panel-2	Panel-2
2922	29221300	TRIETHANOLAMINE AND ITS SALTS	Panel-2	Panel-2
2922	29222110	AMINO-G-ACID	Panel-1	Panel-2
2922	29222120	AMINO-J-ACID	Panel-1	Panel-2
2922	29222130	1-AMINO-2-NAPHTHOL-4-SULPHONIC ACID	Panel-1	Panel-2
2922	29222140	GAMMA ACID	Panel-1	Panel-2
2922	29222150	J-ACID (2-AMINO-5-NAPHTHOL-7-SULPHONIC ACID)	Panel-1	Panel-2
2922	29222160	H-ACID	Panel-1	Panel-2
2922	29222170	ORTHO PHENYL SULPHONYL H-ACID	Panel-1	Panel-2
2922	29222180	CHICAGO ACID	Panel-1	Panel-2
2922	29222190	OTHER AMINOHYDROXY NAPHTHALNE SULPHONIC ACIDS AND THEIR SALTS	Panel-2	Panel-2
2922	29222210	ORTHO ANISIDINE	Panel-1	Panel-2
2922	29222220	PARA ANISIDINE	Panel-1	Panel-2
2922	29222230	ORTHO PHENETIDINE (2-AMINO-PHENITOLE)	Panel-1	Panel-2
2922	29222290	OTHER ANISIDINE DIANISIDINES PHENETIDINES AND THEIR SALTS	Panel-1	Panel-2
2922	29222911	2-AMINO 4-NITROPHENOL	Panel-1	Panel-2
2922	29222912	META AMINOPHENOL	Panel-1	Panel-2
2922	29222913	PARA AMINOPHENOL	Panel-1	Panel-2
2922	29222914	META DIETHYL AMINOPHENOL	Panel-1	Panel-2
2922	29222921	2-AMINO-1-PHENOL-4-SULPHONIC ACID	Panel-1	Panel-2
2922	29222922	6-NITRO-O-AMINOPHENOL-4-SULPHONIC ACID	Panel-1	Panel-2
2922	29222923	PHENYL GAMMA ACID	Panel-1	Panel-2
2922	29222924	PHENYL J.ACID (PHENYL-2-AMINO-8-NAPHTHOL- 7 SULPHONIC ACID	Panel-1	Panel-2
2922	29222925	S.ACID, PERI ACID (1-AMINO-8-NAPHTHOL-4-4-SULPHOXINIC ACID, 1-NAPHTHYLAMINE-8-SULPHONIC ACID)	Panel-1	Panel-2
2922	29222926	META-PHENYLENE DIAMINE-4 SULPHONIC ACID	Panel-1	Panel-2
2922	29222931	N-.METHYL-PARA-AMINOPHENOL SULPHATE (MOTOL)	Panel-1	Panel-2
2922	29222932	2,5 DIMETHOXY ANILINE	Panel-1	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2922	29222934	PARA CRESIDINE	Panel-1	Panel-2
2922	29222935	PICRAMIC ACID (T-GRADE)	Panel-1	Panel-2
2922	29222990	OTHER AMINO-NAPHTHOLS AND OTHER AMINOPHENOLS,THEIR ETHERS,ESTERS AND SALTS	Panel-1	Panel-2
2922	29223100	AMFEPRAMONE (INN), METHADONE (INN) AND NORMETHADONE (INN), SALTS THEREOF	Panel-2	Panel-2
2922	29223900	OTHER AMINO-ALDEHYDES ETC. CONTAINING MORE THAN OXYGEN FUNCTION SALTS	Panel-2	Panel-2
2922	29224300	ANTHRANILIC ACID AND ITS SALTS	Panel-1	Panel-2
2922	29224910	AMINO ACETIC ACID(GLYCINE)	Panel-1	Panel-2
2922	29224920	N-METHYL TAURINE	Panel-1	Panel-2
2922	29224990	OTHER AMINO ACIDS AND THEIR ESTERS OTHER THAN THOSE CONTAINING MORE THAN ONE KINDOF OXYGEN FUNCTION	Panel-2	Panel-2
2922	29225011	PARA AMINO SALICYLIC ACID	Panel-1	Panel-2
2922	29225012	METHYL ANTHRANILATE	Panel-2	Panel-2
2922	29225014	AMINO ANISIC ACID ANILIDE	Panel-1	Panel-2
2922	29225023	N-ACETYL ANTHRANILIC ACID	Panel-1	Panel-2
2922	29225090	OTHER- FRUSEMIDE, AMINODIAL, N-ACETYL ANTHRANILIC ACID, DOMPERIDONE	Panel-2	Panel-2
2923	29231000	CHOLINE AND ITS SALTS	Panel-2	Panel-2
2923	29232010	LECITHINS (OTHER THAN MEDICAMENTS)	Panel-2	Panel-2
2923	29232090	OTHER LECITHINS AND PHOSPHOAMINO LIPIDS	Panel-2	Panel-2
2923	29239000	QUATERNARY AMMONIUM SALTS AND HYDROXIDES LECITHINS AND OTHER PHOSPHOAMINOLIPIDS W/N CHEMICALLY DEFINE	Panel-2	Panel-2
2924	29241100	MEPROBAMATE (INN)	Panel-2	Panel-2
2924	29241900	OTHER ACYCLIC AMIDES (INCLUDING ACYCLIC CARBOMATES) AND THEIR DERIVATIVES SALTS THEREOF	Panel-2	Panel-2
2924	29242110	DIETHYL DIPHENYL UREA	Panel-2	Panel-2
2924	29242120	DIMETHYL DIPHENYL UREA (ZENTRALINE)	Panel-2	Panel-2
2924	29242130	PARACHLORO BENZENE SULPHONYL UREA	Panel-2	Panel-2
2924	29242190	OTHER UREIONES AND THEIR DERIVATIVES SALTS THEREOF	Panel-2	Panel-2
2924	29242300	2-ACETAMEDOBENZOIC ACID (N-ACETYLANTHRANILIC ACID) AND ITS SALTS	Panel-2	Panel-2
2924	29242400	ETHINAMATE (INN)	Panel-2	Panel-2
2924	29242910	ACETANILIDE	Panel-1	Panel-2
2924	29242920	ACETO ACETANILIDE	Panel-1	Panel-2
2924	29242930	ACETO ACETIC ORTHO CHLORANILIDE	Panel-1	Panel-2
2924	29242940	ACETO ACETIC PARA CHLORANILIDE	Panel-1	Panel-2
2924	29242950	PHENYL ACETAMIDE	Panel-2	Panel-2
2924	29242960	PYRAZINAMIDE (PYRAZINE CARBOXAMIDE)	Panel-2	Panel-2
2925	29251900	OTHER IMIDES AND THEIR DERIVATIVES SALTS THEREOF	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
2925	29252010	GUANIDINE NITRATE	Panel-2	Panel-2
2925	29252090	OTHER IMINES AND THEIR DERIVATIVES SALTS THEREOF	Panel-2	Panel-2
2925	29252910	GUANIDINE NITRATE	Panel-2	Panel-2
2925	29252990	OTHER IMINES & THEIR DERIVATIVES, SALTS THEREOF	Panel-2	Panel-2
2926	29261000	ACRYLONITRILE	Panel-2	Panel-2
2926	29262000	I-CYANOGUANIDINE (DICYANIDIAMIDE)	Panel-2	Panel-2
2926	29269000	OTHER NITRILE- FUNCTION COMPOUNDS	Panel-2	Panel-2
2927	29270010	PARA AMINO-AZO-BENZENE	Panel-1	Panel-1
2927	29270090	OTHER DIAZO-AZO OR AZOXY COMPOUNDS	Panel-1	Panel-1
2928	29280090	OTHER ORGANIC DERIVATIVES OF HYDRAZINE/HYDROXYLAMINE	Panel-2	Panel-2
2929	29291010	PHENYLISOCYANATE	Panel-2	Panel-2
2929	29291020	TOLUENE DI-ISOCYANATE	Panel-2	Panel-2
2929	29291090	OTHER ISOCYANATES	Panel-2	Panel-2
2929	29299000	OTHER COMPOUNDS WITH OTHER NITROGEN FUNCTION	Panel-2	Panel-2
2930	29301000	DITHIOCARBONATES (XANTHATES)	Panel-2	Panel-2
2930	29302000	THIOCARBAMATES AND DITHIOCARBAMATES	Panel-2	Panel-2
2930	29303000	THIURAM MONO-, DI OR TETRASULPHIDES	Panel-2	Panel-2
2930	29304000	METHIONINE	Panel-2	Panel-2
2930	29309010	THIOUREA (SULPHOUREA)	Panel-2	Panel-2
2930	29309050	SULPHINIC ACID	Panel-2	Panel-2
2930	29309070	MERCAPTAN	Panel-2	Panel-2
2930	29309080	ALLYL ISOTHIOCYANATE	Panel-2	Panel-2
2930	29309091	ETHANOL, 2,2-THIOBIS	Panel-2	Panel-2
2930	29309092	DI-METHYL AMINO ETHANETHIOL	Panel-2	Panel-2
2930	29309094	DI-ETHYL AMINO ETHANETHIOL	Panel-2	Panel-2
2930	29309097	PHOSPHOROTHIOIC, S[2-(DIETHYL AMINO) ETHYL] O,O-DIETHYL ESTER	Panel-2	Panel-2
2930	29309099	OTHER ORGANO- SULPHUR COMPOUNDS	Panel-2	Panel-2
2931	29310010	ORGANO MERCURY COMPOUNDS	Panel-2	Panel-2
2931	29310020	ORGANO ARSENIC COMPOUNDS	Panel-2	Panel-2
2931	29310030	TETRAETHYL LEAD	Panel-2	Panel-2
2931	29310042	PHOSPHONIC ACID, ETHYL	Panel-2	Panel-2
2931	29310051	PHOSPHONIC ACID, [METHYL-(5-ETHYL-2-METHYL 2-OXIDO-1,3,2 -DIOXAPHOSPHORINON-5-YL) METHYL] ESTER	Panel-2	Panel-2
2931	29319090	OTHER ORGANIC/INORGANIC COMPOUNDS	Panel-2	Panel-2
2932	29321100	TETRAHYDROFURAN	Panel-2	Panel-2
2932	29321200	2-FURALDEHYDE (FURFURALDEHYDE)	Panel-2	Panel-2

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2932	29321300	FURFURYL ALCOHOL AND TETRAHYDROFURFURYL ALCOHOL	Panel-2	Panel-2
2932	29321910	HYDROXY-3-DIBENZFUREN CARBOXYLIC ACID	Panel-2	Panel-2
2932	29321990	OTHER COMPOUNDS CONTAINING AN UNFUSED FURAN RING (WHETHER OR NOT HYDROGENATED) IN THE STRUCTURE	Panel-2	Panel-2
2932	29322100	COUMARIN, METHYL COUMARIN AND ETHYL COUMARINS	Panel-2	Panel-2
2932	29322910	PHENOL PHTHALEIN	Panel-2	Panel-2
2932	29322990	OTHER LACTONES	Panel-2	Panel-2
2932	29329100	ISOSAFROLE	Panel-2	Panel-2
2932	29329200	1-(1,3-BENZODIOXOL-5YL) PROPAN-2-ONE	Panel-2	Panel-2
2932	29329300	PIPERONAL	Panel-2	Panel-2
2932	29329400	SAFROLE	Panel-2	Panel-2
2932	29329500	TETRAHYDROCANNABINOLS (ALL ISOMERS)	Panel-2	Panel-2
2932	29329900	OTHER HETROCYCLIC COMPOUNDS WITH OXYGEN HETERO-ATOMS (S) ONLY	Panel-2	Panel-2
2933	29331100	PHENAZONE (ANTIPYRIN) AND ITS DERIVATIVES	Panel-2	Panel-2
2933	29331910	3-CARBOXY (PARA SULPHO-PHENYL)-5 PYRAZOLONE	Panel-1	Panel-2
2933	29331920	1 (2:5 DICHLORO-4-SULPHO-PHENYL)-3-METHYL-5-PYRAZOLONE	Panel-1	Panel-2
2933	29331930	3-METHYL-1 (4-SULPHO-O-TOLUYL-5-PYRAZOLONE)	Panel-1	Panel-2
2933	29331940	PHENYL-METHYL PYRAZOLONE	Panel-1	Panel-2
2933	29331950	1-PHENYL-5 PYRAZOLINE-3-CARBOXYLIC ACID ETHYL ESTERS	Panel-1	Panel-2
2933	29331960	1-(M-SULPHOPHENYL)-3-PYRAZOLONE	Panel-1	Panel-2
2933	29331990	OTHER COMPOUNDS CONTAINING AN UNFUSED PYRAZOLE RING (W/N HYDROGENATED IN SRUCVRE	Panel-2	Panel-2
2933	29333200	PIPERIDINE AND ITS SALTS	Panel-2	Panel-2
2933	29333911	AMINO PYRIDINE	Panel-2	Panel-2
2933	29333912	ALPHA PICOLINE (2-METHYL PYRIDINE)	Panel-2	Panel-2
2933	29333913	GAMMA PICOLINE (4-METHYL PYRIDINE)	Panel-2	Panel-2
2933	29333915	DIPHENOXYLATE HYDROCHLORIDE	Panel-2	Panel-2
2933	29333916	BETA PICOLINE (3-METHYL PYRIDINE)	Panel-2	Panel-2
2933	29333917	MORPHOLINE	Panel-2	Panel-2
2933	29333918	LUTIDINE (DIMETHYL PYRIDINE)	Panel-2	Panel-2
2933	29333919	OTHER DERIVATIVES OF PYRIDINE	Panel-2	Panel-2
2933	29333920	PIPERIDINE AND ITS DERIVATIVES	Panel-2	Panel-2
2933	29333990	OTHER COMPOUNDS CONTG. AN UNFUSED PYRIDINE RING (W/N) HYDROGENATED	Panel-2	Panel-2
2933	29335200	MALONYLUREA (BARBITURIC ACID) AND ITS SALTS	Panel-2	Panel-2
2933	29335400	OTHER DERIVATIV ES OF MALONYLUREA (BARBITURIC ACID), SALTS THEREOF	Panel-2	Panel-2
2933	29335990	OTHER COMPOUNDS CONTAINING A PYRIMIDINE RING (W/N HYDROGENTATED) OR PIPERAZINE RING IN STRUCTURE	Panel-2	Panel-2

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2933	29336100	MELAMINE	Panel-2	Panel-2
2933	29336910	CYANURIC ACID AND ITS SALTS	Panel-2	Panel-2
2933	29336990	OTHER COMPOUND CONTAINING AN UNFUSED TRIAZINE RING (W/N HYDROGENATED)	Panel-2	Panel-2
2933	29337100	6-HEXANETLACTAM (EPSILON-CAPROLACTAM)	Panel-2	Panel-2
2933	29337900	OTHER LACTAMS	Panel-2	Panel-2
2934	29341000	COMPOUNDS CONTAINING AN UNFUSED THIAZOLE RING (W/N HYDROGENATED)	Panel-2	Panel-2
2934	29342000	COMPOUNDS CONTAINING IN THE STRUCTURE A BENZOTHIAZOLE RING-SYSTEM (W/N HYDROGENATED)	Panel-2	Panel-2
2934	29343000	COMPOUNDS CONTAINING IN THE STRUCTURE A PHENOTHIAZINE RING SYSTEM (WHETHER OR NOT HYDROGENATED)	Panel-2	Panel-2
3102	31022100	AMMONIUM SULPHATE	Panel-2	Panel-2
3104	31042000	POTASSIUM CHLORIDE	Panel-2	Panel-2
3104	31043000	POTASSIUM SULPHATE	Panel-2	Panel-2
3105	31053000	DIAMMONIUM HYDROGEN ORTHO PHOSPHATE	Panel-2	Panel-2
3201	32019030	GALLOTANNIC ACID (TANNIN, DIGALLIC ACID)	Panel-1	Panel-1
3202	32021000	SYNTHETIC ORGANIC TANNING SUBSTANCES	Panel-1	Panel-1
3202	32029020	TANNING PREPARATIONS, WHETHER OR NOT CONTAINING NATURAL TANNING SUBSTANCES	Panel-1	Panel-1
3203	32030020	FOOD COLOURS OTHER THAN SYNTHETIC	Panel-1	Panel-1
3203	32030030	LAC-DYE	Panel-1	Panel-1
3203	32030040	NATURAL INDIGO	Panel-1	Panel-1
3204	32041111	DISPERSE YELLOW 13 (DURANOL BRILL YELLOW 6 G)	Panel-1	Panel-1
3204	32041119	OTHER DISPERSE YELLOW	Panel-1	Panel-1
3204	32041121	DISPERSE ORANGE 11 (DURANOL ORANGE G)	Panel-1	Panel-1
3204	32041129	OTHER DISPERSE ORANGE	Panel-1	Panel-1
3204	32041131	DISPERSE RED 3 (SERISOL FAST PINK B)	Panel-1	Panel-1
3204	32041132	DISPERSE RED 4 (CELLITON FAST PINK RF)	Panel-1	Panel-1
3204	32041133	DISPERSE RED 9 (DURANOL RED GN)	Panel-1	Panel-1
3204	32041139	OTHER DISPERSE RED	Panel-1	Panel-1
3204	32041141	DISPERSE VIOLET 1 (DURANOL VIOLET 2R)	Panel-1	Panel-1
3204	32041142	DISPERSE VIOLET 4(DURANOL BRILL VIOLET B)	Panel-1	Panel-1
3204	32041143	DISPERSE VIOLET 8 (DURANOL BRILL VIOLET BR)	Panel-1	Panel-1
3204	32041149	OTHER DISPERSE VIOLET	Panel-1	Panel-1
3204	32041151	DISPERSE BLUE 1 (DURANOL BRILL BLUE CB)	Panel-1	Panel-1
3204	32041152	DISPERSE BLUE 3 (DURANOL BRILL BLUE BBN)	Panel-1	Panel-1
3204	32041153	DISPERSE BLUE 5 (CELLITON FAST BLUE FFB)	Panel-1	Panel-1
3204	32041154	DISPERSE BLUE 6 (CELLITON FAST BLUE FFG)	Panel-1	Panel-1
3204	32041155	DISPERSE BLUE 14 (DURANOL BRILL BLUE G)	Panel-1	Panel-1

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3204	32041156	DISPERSE BLUE 24 (DURANOL BLUE 2G)	Panel-1	Panel-1
3204	32041159	OTHER DISPERSE BLUE	Panel-1	Panel-1
3204	32041191	DISPERSE GREENS	Panel-1	Panel-1
3204	32041192	DISPERSE BROWNS	Panel-1	Panel-1
3204	32041193	DISPERSE BLACKS	Panel-1	Panel-1
3204	32041194	DISPERSE BROWN MIXTURES	Panel-1	Panel-1
3204	32041195	DISPERSE GREY MIXTURES	Panel-1	Panel-1
3204	32041196	DISPERSE BLACK MIXTURES	Panel-1	Panel-1
3204	32041199	OTHR DISPERSE DYES & PREP BASED THEREON	Panel-1	Panel-1
3204	32041211	ACID YELLOWS	Panel-1	Panel-1
3204	32041212	ACID ORANGES	Panel-1	Panel-1
3204	32041213	ACID REDS	Panel-1	Panel-1
3204	32041214	ACID VIOLETS	Panel-1	Panel-1
3204	32041215	ACID BLUES	Panel-1	Panel-1
3204	32041216	ACID GREENS	Panel-1	Panel-1
3204	32041217	ACID BROWNS	Panel-1	Panel-1
3204	32041218	ACID BLACKS	Panel-1	Panel-1
3204	32041219	OTHER AZO DYES	Panel-1	Panel-1
3204	32041221	ACID GREEN 17(SOLACET FAST GREEN 2G)(NON-AZ0)	Panel-1	Panel-1
3204	32041222	ACID GREEN 27(CARBOLAN GREEN G) (NON-AZO)	Panel-1	Panel-1
3204	32041223	ACID GREEN 28(CARBOLAN BRILL GREEN 5G) (NON-AZO)	Panel-1	Panel-1
3204	32041224	ACID GREEN 38(ALIZARINE CYANINE GREEN 3G)	Panel-1	Panel-1
3204	32041225	ACID GREEN 44 (ALIZARINE CYANINE GREEN GWA)	Panel-1	Panel-1
3204	32041229	OTHER ACID GREENS (NON AZO)	Panel-1	Panel-1
3204	32041231	ACID BLACK 2 (NIGROSINE) (NON AZO)	Panel-1	Panel-1
3204	32041232	ACID BLACK 48 (COOMASIE FAST GREY 3G) (NON AZO)	Panel-1	Panel-1
3204	32041239	OTHER ACID BLACK (NON AZO)	Panel-1	Panel-1
3204	32041241	ACID BLUE 2 (ALIZARINE BRILL BLUE PFN) (NON-AZO)	Panel-1	Panel-1
3204	32041242	ACID BLUE 14 (SOLACET FAST BLUE 4G1)	Panel-1	Panel-1
3204	32041243	ACID BLUE 23 (ALIZARINE LIGHT BLUE 4G1)	Panel-1	Panel-1
3204	32041244	ACID BLUE 25 (SOLWAY ULTRA BLUE B)	Panel-1	Panel-1
3204	32041245	ACID BLUE 45 (SOLWAY BLUE RN)	Panel-1	Panel-1
3204	32041246	ACID BLUE 51(ALIZARINE SKY BLUE FFB)	Panel-1	Panel-1
3204	32041247	ACID BLUE 52 (ALIZARINE LIGHT-5GL)	Panel-1	Panel-1
3204	32041248	ACID BLUE 78 (SOLWAY SKY BLUE B)	Panel-1	Panel-1
3204	32041251	ACID BLUE 93 (INK BLUE)	Panel-1	Panel-1

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3204	32041252	ACID BLUE 112 (COOMASIE ULTRA SKY SE)	Panel-1	Panel-1
3204	32041253	ACID BLUE 127 (BRILL ALIZARINE MILLING BLUE G)	Panel-1	Panel-1
3204	32041254	ACID BLUE 138 (CARBOLAN BLUE B)	Panel-1	Panel-1
3204	32041255	ACID BLUE 140 (CARBOLAN BRILL BLUE 2R)	Panel-1	Panel-1
3204	32041259	OTHER ACID BLUE (NON AZO)	Panel-1	Panel-1
3204	32041261	MORDANT YELLOWS	Panel-1	Panel-1
3204	32041262	MORDANT ORANGES	Panel-1	Panel-1
3204	32041263	MORDANT VIOLETS	Panel-1	Panel-1
3204	32041264	MORDANT BLUES	Panel-1	Panel-1
3204	32041265	MORDANT GREENS	Panel-1	Panel-1
3204	32041266	MORDANT BROWNS	Panel-1	Panel-1
3204	32041267	MORDANT BLACKS	Panel-1	Panel-1
3204	32041268	MORDANT RED II (ALIZARINE RED)	Panel-1	Panel-1
3204	32041269	OTHER MORDANT DYES (INGRAIN DYES, REDS, ETC.)	Panel-1	Panel-1
3204	32041291	ACID YELLOWS (NON-AZO)	Panel-1	Panel-1
3204	32041292	ACID ORANGES (NON-AZO)	Panel-1	Panel-1
3204	32041293	ACID REDS (NON-AZO)	Panel-1	Panel-1
3204	32041294	ACID VIOLETS (NON-AZO)	Panel-1	Panel-1
3204	32041295	ACID BROWNS (NON-AZO)	Panel-1	Panel-1
3204	32041299	OTHER NON-AZO ACID DYES	Panel-1	Panel-1
3204	32041310	BASIC AZO DYES	Panel-1	Panel-1
3204	32041321	BASIC YELLOW 2 (AURAMINE O)	Panel-1	Panel-1
3204	32041329	OTHER BASIC YELLOW (NON-AZO)	Panel-1	Panel-1
3204	32041331	BASIC RED 1 (RHODAMINE 6G) (NON-AZO)	Panel-1	Panel-1
3204	32041339	OTHER BASIC RED (NON-AZO)	Panel-1	Panel-1
3204	32041341	BASIC VIOLET 1 (METHYL VIOLET)(NON AZO)	Panel-1	Panel-1
3204	32041342	BASIC VIOLET 10 (RHODAMINE B)(NON AZO)	Panel-1	Panel-1
3204	32041343	BASIC VIOLET 14 (MAGENTA)(NON AZO)	Panel-1	Panel-1
3204	32041349	OTHER BASIC VIOLET (NON AZO)	Panel-1	Panel-1
3204	32041351	BASIC BLUE 9 (METHYLENE BLUE)(NON AZO)	Panel-1	Panel-1
3204	32041352	BASIC BLUE 16 (VICTORIA BLUE B)(NON AZO)	Panel-1	Panel-1
3204	32041359	OTHER BASIC BLUE (NON AZO)	Panel-1	Panel-1
3204	32041361	BASIC GREEN 4 (MALACHITE GREEN)(NON AZO)	Panel-1	Panel-1
3204	32041369	OTHER BASIC GREEN (NON AZO)	Panel-1	Panel-1
3204	32041391	BASIC ORANGES (NON-AZO)	Panel-1	Panel-1
3204	32041392	BASIC BROWNS (NON AZO)	Panel-1	Panel-1

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3204	32041393	BASIC BLACKS (NON AZO)	Panel-1	Panel-1
3204	32041399	OTHER NON-AZO BASIC DYES	Panel-1	Panel-1
3204	32041411	DIRECT YELLOW 12 (CHRYSOPHENINE G) (AZO)	Panel-1	Panel-1
3204	32041419	OTHER DIRECT YELLOW (AZO)	Panel-1	Panel-1
3204	32041421	DIRECT RED (CONGO RED) (AZO)	Panel-1	Panel-1
3204	32041429	OTHER DIRECT RED (AZO)	Panel-1	Panel-1
3204	32041431	DIRECT BLUE 1 (SKY BLUE FF) (AZO)	Panel-1	Panel-1
3204	32041439	OTHER DIRECT BLUE (AZO)	Panel-1	Panel-1
3204	32041440	DIRECT ORANGES (AZO)	Panel-1	Panel-1
3204	32041450	DIRECT GREENS (AZO)	Panel-1	Panel-1
3204	32041460	DIRECT BROWNS (AZO)	Panel-1	Panel-1
3204	32041470	DIRECT BLACKS (AZO)	Panel-1	Panel-1
3204	32041481	DIRECT YELLOWS (NON-AZO)	Panel-1	Panel-1
3204	32041482	DIRECT ORANGES (NON-AZO)	Panel-1	Panel-1
3204	32041483	DIRECT REDS (NON-AZO)	Panel-1	Panel-1
3204	32041484	DIRECT VIOLETS (NON-AZO)	Panel-1	Panel-1
3204	32041485	DIRECT BLUES (NON AZO)	Panel-1	Panel-1
3204	32041486	DIRECT GREENS (NON-AZO)	Panel-1	Panel-1
3204	32041487	DIRECT BROWNS (NON-AZO)	Panel-1	Panel-1
3204	32041488	DIRECT BLACKS (NON-AZO)	Panel-1	Panel-1
3204	32041489	OTHER NON-AZO DIRECT DYES	Panel-1	Panel-1
3204	32041490	OTHER DIRECT DYES & PREPN. BASED THEREON	Panel-1	Panel-1
3204	32041511	VAT YELLOW 2 (GC)	Panel-1	Panel-1
3204	32041512	VAT YELLOW 4 (INDATHRENE GOLDEN YELLOW GK)	Panel-1	Panel-1
3204	32041519	OTHER VAT YELLOW	Panel-1	Panel-1
3204	32041521	VAT ORANGE 3(BRILL ORANGE RK)	Panel-1	Panel-1
3204	32041522	VAT ORANGES 15 (GOLDEN ORANGE 3G)	Panel-1	Panel-1
3204	32041529	OTHER VAT ORANGES	Panel-1	Panel-1
3204	32041531	VAT RED (BRILL PINK)	Panel-1	Panel-1
3204	32041539	OTHER VAT RED	Panel-1	Panel-1
3204	32041541	VAT VIOLET 1(BRILL VIOLET 2R)	Panel-1	Panel-1
3204	32041542	VAT VIOLET 3 (MAGENTA B)	Panel-1	Panel-1
3204	32041549	OTHER VAT VIOLET	Panel-1	Panel-1
3204	32041551	VAT BLUE 1 (SYNTHETIC INDIGO)	Panel-1	Panel-1
3204	32041552	VAT BLUE 4	Panel-1	Panel-1
3204	32041553	VAT BLUE 5 (BLUE 2B)	Panel-1	Panel-1

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3204	32041554	VAT BLUE 6 (BLUE BC)	Panel-1	Panel-1
3204	32041555	VAT BLUE 20 (DARK BLUE 30)	Panel-1	Panel-1
3204	32041556	VAT BLUE 29 (INDANTHRENE BRILL BLUE 4G)	Panel-1	Panel-1
3204	32041557	VAT BLUE 43 (CARBOZOLE BLUE)	Panel-1	Panel-1
3204	32041558	REDUCED VAT BLUES	Panel-1	Panel-1
3204	32041559	OTHER VAT BLUE	Panel-1	Panel-1
3204	32041561	VAT GREEN 1 (INDANTHRENE BRILL GREEN BFFB)	Panel-1	Panel-1
3204	32041562	VAT GREEN 2 (INDANTHRENE BRILL GREEN GG)	Panel-1	Panel-1
3204	32041563	VAT GREEN 4 (INDANTHRENE BRILL GREEN 3B)	Panel-1	Panel-1
3204	32041564	VAT GREEN 9 (BLACK BB)	Panel-1	Panel-1
3204	32041569	OTHER VAT GREEN	Panel-1	Panel-1
3204	32041571	VAT BROWN 1 (BROWN BR)	Panel-1	Panel-1
3204	32041572	VAT BROWN 3 (BROWN RGR)	Panel-1	Panel-1
3204	32041573	VAT BROWN 5 (BROWN RRD,G)	Panel-1	Panel-1
3204	32041579	OTHER VAT BROWN	Panel-1	Panel-1
3204	32041581	VAT BLACK 9 (BLACK RB)	Panel-1	Panel-1
3204	32041582	VAT BLACK 25 (OLIVE T)	Panel-1	Panel-1
3204	32041583	VAT BLACK 27 (OLIVE R)	Panel-1	Panel-1
3204	32041584	VAT BLACK 29 (GREY BG)	Panel-1	Panel-1
3204	32041589	OTHER VAT BLACK	Panel-1	Panel-1
3204	32041591	SOLUBILIZED VAT YELLOWS	Panel-1	Panel-1
3204	32041592	SOLUBILIZED VAT ORANGES	Panel-1	Panel-1
3204	32041593	SOLUBILISED VAT REDS	Panel-1	Panel-1
3204	32041594	SOLUBILIZED VAT VIOLETS	Panel-1	Panel-1
3204	32041595	SOLUBILIZED VAT BLUES	Panel-1	Panel-1
3204	32041596	SOLUBILIZED VAT GREENS	Panel-1	Panel-1
3204	32041597	SOLUBILISED VAT BLACKS	Panel-1	Panel-1
3204	32041599	OTHER SOLUBILISED VAT	Panel-1	Panel-1
3204	32041610	REACTIVE YELLOWS	Panel-1	Panel-1
3204	32041620	REACTIVE ORANGES	Panel-1	Panel-1
3204	32041630	REACTIVE REDS	Panel-1	Panel-1
3204	32041640	REACTIVE VIOLETS	Panel-1	Panel-1
3204	32041650	REACTIVE BLUES	Panel-1	Panel-1
3204	32041660	REACTIVE GREENS	Panel-1	Panel-1
3204	32041670	REACTIVE BROWNS	Panel-1	Panel-1
3204	32041680	REACTIVE BLACKS	Panel-1	Panel-1

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3204	32041690	OTHER REACTIVE DYES	Panel-1	Panel-1
3204	32041711	PIGMENT YELLOWS 1 (HANSA YELLOW)	Panel-1	Panel-1
3204	32041719	OTHER PIGMENTS YELLOW	Panel-1	Panel-1
3204	32041720	PIGMENT ORANGES	Panel-1	Panel-1
3204	32041731	PIGMENT RED (TOLUIDINE RED)	Panel-1	Panel-1
3204	32041739	OTHER PIGMENT RED	Panel-1	Panel-1
3204	32041740	PIGMENT VIOLET	Panel-1	Panel-1
3204	32041751	PIGMENT BLUE 15 (PATHALOCYANINE BLUE)	Panel-1	Panel-1
3204	32041759	OTHER PIGMENT BLUE	Panel-1	Panel-1
3204	32041761	PIGMENT GREEN 7(PATHALOCYANINE GREEN)	Panel-1	Panel-1
3204	32041769	OTHER PIGMENT GREENS	Panel-1	Panel-1
3204	32041770	PIGMENT BROWNS	Panel-1	Panel-1
3204	32041780	PIGMENT BLACKS	Panel-1	Panel-1
3204	32041790	OTHER PIGMENT BLACK	Panel-1	Panel-1
3204	32041911	AZOIC COUPLING COMPT.2 (NAPHTHOL AS)	Panel-1	Panel-1
3204	32041912	AZOIC COUPLING COMPT.4 (NAPHTHOL AS-B0)	Panel-1	Panel-1
3204	32041913	AZOIC COUPLING COMPT.5 (NAPHTHOL ASG)	Panel-1	Panel-1
3204	32041914	AZOIC COUPLING COMPT.7 (NAPHTHOL ASSW)	Panel-1	Panel-1
3204	32041915	AZOIC COUPLING COMPT.8 (NAPHTHOL ASTR)	Panel-1	Panel-1
3204	32041916	AZOIC COUPLING COMPT.13 (NAPHTHOL ASSG)	Panel-1	Panel-1
3204	32041921	AZOIC COUPLING COMPT.14 (NAPHTHOL ASPH)	Panel-1	Panel-1
3204	32041922	AZOIC COUPLING COMPT.15 (NAPHTHOL ASLB)	Panel-1	Panel-1
3204	32041923	AZOIC COUPLING COMPT.17 (NAPHTHOL ASBS)	Panel-1	Panel-1
3204	32041924	AZOIC COUPLING COMPT.18 (NAPHTHOL ASD)	Panel-1	Panel-1
3204	32041925	AZOIC COUPLING COMPT.20 (NAPHTHOL ASOL)	Panel-1	Panel-1
3204	32041929	OTHER AZOIC COUPLING COMPT. (OTHER THAN 14,15,17,18 & 20)	Panel-1	Panel-1
3204	32041931	AZOIC DIAZO COMPT.1 (FAST BORDEAUX GP BASE)	Panel-1	Panel-1
3204	32041932	AZOIC DIAZO COMPT.2 (FAST ORANGE G/GC BASE)	Panel-1	Panel-1
3204	32041933	AZOIC DIAZO COMPT.3 (FAST SCARLET GGIGGS BASE)	Panel-1	Panel-1
3204	32041934	AZOIC DIAZO COMPT.4 (FAST GARMENT GBC BASE)	Panel-1	Panel-1
3204	32041935	AZOIC DIAZO COMPT.5 (FAST RED B BASE)	Panel-1	Panel-1
3204	32041936	AZOIC DIAZO COMPT.6 (FAST ORANGE GR BASE)	Panel-1	Panel-1
3204	32041937	AZOIC DIAZO COMPT.10 (FAST RED R BASE)	Panel-1	Panel-1
3204	32041938	AZOIC DIAZO COMPT.11 (FAST RED TR BASE)	Panel-1	Panel-1
3204	32041941	AZOIC DIAZO COMPT.12 (FAST SCARLET G BASE)	Panel-1	Panel-1
3204	32041942	AZOIC DIAZO COMPT.13 (FAST SCARLET R BASE)	Panel-1	Panel-1

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3204	32041943	AZOIC DIAZO COMPT.20 (FAST BLUE BB BASE)	Panel-1	Panel-1
3204	32041944	AZOIC DIAZO COMPT.24 (FAST BLUE RR BASE)	Panel-1	Panel-1
3204	32041945	AZOIC DIAZO COMPT. 32 (FAST RED KB BASE)	Panel-1	Panel-1
3204	32041946	AZOIC DIAZO COMPT.41 (FAST VIOLET B BASE)	Panel-1	Panel-1
3204	32041947	AZOIC DIAZO COMPT.48 (FAST BLUE B BASE)	Panel-1	Panel-1
3204	32041949	OTHER AZOIC DIAZO COMPT. (OTHER THAN 12,13,20,24,32,41 & 48)	Panel-1	Panel-1
3204	32041951	AZOIC YELLOWS	Panel-1	Panel-1
3204	32041952	AZOIC ORANGES	Panel-1	Panel-1
3204	32041953	AZOIC REDS	Panel-1	Panel-1
3204	32041954	AZOIC VIOLETS	Panel-1	Panel-1
3204	32041955	AZOIC BLUES	Panel-1	Panel-1
3204	32041956	AZOIC GREENS	Panel-1	Panel-1
3204	32041957	AZOIC BROWNS	Panel-1	Panel-1
3204	32041958	AZOIC BLACKS	Panel-1	Panel-1
3204	32041959	OTHER AZOIC COLOURS	Panel-1	Panel-1
3204	32041961	SULPHUR YELLOWS	Panel-1	Panel-1
3204	32041962	SULPHUR ORANGES	Panel-1	Panel-1
3204	32041963	SULPHUR REDS	Panel-1	Panel-1
3204	32041964	SULPHUR BLUES	Panel-1	Panel-1
3204	32041965	SULPHUR GREENS	Panel-1	Panel-1
3204	32041966	SULPHUR BROWNS	Panel-1	Panel-1
3204	32041967	SULPHUR BLACKS	Panel-1	Panel-1
3204	32041969	OTHER SULPHUR BASE COLOURING MATTER	Panel-1	Panel-1
3204	32041971	SOLVENT BASED COLOURING MATTERS:YELLOWS	Panel-1	Panel-1
3204	32041972	SOLVENT BASED COLOURING MATTERS:ORANGES	Panel-1	Panel-1
3204	32041973	SOLVENT BASED COLOURING MATTERS: REDS	Panel-1	Panel-1
3204	32041974	SOLVENT BASED COLOURING MATTERS:VIOLETS	Panel-1	Panel-1
3204	32041975	SOLVENT BASED COLOURING MATTERS:BLUES	Panel-1	Panel-1
3204	32041976	SOLVENT BASED COLOURING MATTERS:GREENS	Panel-1	Panel-1
3204	32041977	SOLVENT BASED COLOURING MATTERS:BROWNS	Panel-1	Panel-1
3204	32041978	SOLVENT BASED COLOURING MATTERS:BLACKS	Panel-1	Panel-1
3204	32041979	OTHER CADMIUM COMPOUNDS	Panel-1	Panel-1
3204	32041981	FOOD YELLOW 3 (SUNSET YELLOW)	Panel-1	Panel-1
3204	32041982	FOOD YELLOW 4 (TARTRAZINE)	Panel-1	Panel-1
3204	32041983	FOOD REDS 5 TO 8 (PONCEAN)	Panel-1	Panel-1
3204	32041984	FOOD RED 9 (AMARANTH)	Panel-1	Panel-1

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3204	32041985	FOOD ORANGES	Panel-1	Panel-1
3204	32041986	FOOD VIOLETS	Panel-1	Panel-1
3204	32041987	FOOD GREENS	Panel-1	Panel-1
3204	32041988	FOOD BROWNS	Panel-1	Panel-1
3204	32041989	OTHER FOOD COLOURING MATTERS	Panel-1	Panel-1
3204	32041990	OTHER INCL. MIXTURE OF COLORING MATTERS OF TWO OR MORE OF SUB-HDNG 320411 TO 320419	Panel-1	Panel-1
3204	32042010	OPTICAL WHITENING AGETNS	Panel-1	Panel-1
3204	32042090	OTHER FLUORESCENT BRIGHTENING AGENT	Panel-1	Panel-1
3205	32050000	COLOUR LAKES	Panel-1	Panel-1
3207	32071010	PREPARED ORGANICS DYESTUFF PIGMENTS DRY	Panel-1	Panel-1
3207	32071020	PREPARED ORGANICS DYESTUFF PIGMENTS PASTE	Panel-1	Panel-1
3301	33011100	ESSENTIAL OILS OF BERGAMOT	Panel-3	Panel-3
3301	33011200	ESSENTIAL OILS OF ORGANGE	Panel-3	Panel-3
3301	33011300	ESSENTIAL OILS OF LEMON	Panel-3	Panel-3
3301	33011400	ESSENTIAL OILS OF LIME	Panel-3	Panel-3
3301	33011910	CITRONELLA OIL, JAVA TYPE	Panel-3	Panel-3
3301	33011990	CITRONELLA OIL CEYLON TYPE INCLUDING & CONCETRATE	Panel-3	Panel-3
3301	33012200	JASMINE CONCRETE	Panel-3	Panel-3
3301	33012300	LAVENDER OR LAVANDIN OTHER THAN THOSE OF CITRUS FRUIT	Panel-3	Panel-3
3301	33012400	PEPPERMINT OIL(MENTHA PIPERITA)	Panel-3	Panel-3
3301	33012510	SPEARMINT OIL (EX-MENTHA SPICATA)	Panel-3	Panel-3
3301	33012520	WATER MINT OIL (EX-MENTHA AQUATIC)	Panel-3	Panel-3
3301	33012530	HORSEMINT OIL (EX-MENTHA SYLVESTRIES)	Panel-3	Panel-3
3301	33012540	BERGAMONT OIL (EX-MENTHA CITRATE)	Panel-3	Panel-3
3301	33012590	OTHER MINT OILS	Panel-3	Panel-3
3301	33012600	VETIVER OIL	Panel-3	Panel-3
3301	33012911	ANISE OIL (ANISEED OIL)	Panel-3	Panel-3
3301	33012912	CAJUPUT OIL	Panel-3	Panel-3
3301	33012913	CANANGA OIL	Panel-3	Panel-3
3301	33012914	CARAWAY OIL	Panel-3	Panel-3
3301	33012915	CASSIA OIL	Panel-3	Panel-3
3301	33012916	CEDARWOOD OIL	Panel-3	Panel-3
3301	33012917	CINNAMON BARK OIL	Panel-3	Panel-3
3301	33012918	CINNAMON LEAF OIL	Panel-3	Panel-3
3301	33012921	CLOVE LEAF/STEM OIL	Panel-3	Panel-3
3301	33012922	CORIANDER SEED OIL	Panel-3	Panel-3

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3301	33012923	DILL OIL (ANETHUM OIL)	Panel-3	Panel-3
3301	33012924	EUCALYPTUS OIL	Panel-3	Panel-3
3301	33012925	FENNEL SEED OIL	Panel-3	Panel-3
3301	33012926	GINGER OIL	Panel-3	Panel-3
3301	33012927	GINGERGRASS OIL	Panel-3	Panel-3
3301	33012928	CLOVE BUD OIL	Panel-3	Panel-3
3301	33012931	TUBEROSE CONCENTRATES	Panel-3	Panel-3
3301	33012932	NUTMEG OIL	Panel-3	Panel-3
3301	33012933	PALMOROSA OIL	Panel-3	Panel-3
3301	33012934	PATCHOULI OIL	Panel-3	Panel-3
3301	33012936	PETITGRAIN OIL	Panel-3	Panel-3
3301	33012937	SANDALWOOD OIL	Panel-3	Panel-3
3301	33012938	ROSE OIL	Panel-3	Panel-3
3301	33012941	CAMPHOR OIL	Panel-3	Panel-3
3301	33012942	LEMONGRASS OIL	Panel-3	Panel-3
3301	33012943	YLANG YLANG OIL	Panel-3	Panel-3
3301	33012944	DAVANA OIL	Panel-3	Panel-3
3301	33012945	CUMIN OIL	Panel-3	Panel-3
3301	33012946	CELERY SEED OIL	Panel-3	Panel-3
3301	33012990	ESSENTIAL OILS OF GERANIUM	Panel-3	Panel-3
3301	33013010	AGAR OIL	Panel-3	Panel-3
3301	33013091	FLAVOURING ESSENCESS ALL TYPES, INCLUDING THOSE FOR LIQUORS (RESINOIDS)	Panel-3	Panel-3
3301	33013099	RESINOIDS OTHER	Panel-3	Panel-3
3301	33019031	ATTARS OF ALL KINDS IN FIXED OIL BASE	Panel-3	Panel-3
3301	33019032	MUSTARD OIL AROMA/ESSENTIAL OIL	Panel-3	Panel-3
3301	33019033	ESSENCE OF AMBRETTOLIE (AMBRETTE SEED OIL ESSENCE)	Panel-3	Panel-3
3301	33019041	FLAVOURING ESSENCES, ALL TYPES, INCL THOSEFOR LIQUORS OBTAIN BY COLD ABSORPT OR MACR	Panel-3	Panel-3
3301	33019049	OTHER CONCENTRATES OF ESSENTIAL OIL IN FATS IN FIXED OILS OR IN WAXES OR THE LIKE OBTAINED BY COLD	Panel-3	Panel-3
3301	33019051	FLAVOURING ESSENCES, ALL TYPES, INCL THOSE FOR LIQUORS (TERPENIC BY-PRODUCT)	Panel-3	Panel-3
3301	33019059	OTHER TERPENIC BY PRODUCTS OF DETERPENATION OF ESSENTIAL OILS	Panel-3	Panel-3
3301	33019060	AQUEOUS DISTILLATES OF ESSENTIAL OILS N.E.S.	Panel-3	Panel-3
3301	33019071	FLAVOURING ESSENCES, ALL TYPES, INCL THOSEFOR LIQUORS (AQUEOUS SOLUTIONS)	Panel-3	Panel-3
3301	33019090	OTHER AQUEOUS SOLUTION OF ESSENTIAL OILS.	Panel-3	Panel-3
3302	33021010	SYNTHETIC FLAVOURING ESSENCES	Panel-3	Panel-3
3302	33021090	OTHER FLAVOURING ESSENCES USED IN THE FOOD OR DRINK INDUSTRIES	Panel-3	Panel-3

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3302	33029011	SYNTHETIC PERFUMERY COMPOUNDS	Panel-3	Panel-3
3302	33029012	SYNTHETIC ESSENTIAL OILS	Panel-3	Panel-3
3302	33029019	OTHER MIXTURE OF AROMATIC CHEMICALS AND ESSENTIAL OILS AS PERFUME BASE	Panel-3	Panel-3
3302	33029020	ALEURITIC ACID	Panel-2	Panel-3
3303	33030010	EAU-DE-COLOGNE	Panel-3	Panel-3
3303	33030020	ROSE WATER	Panel-3	Panel-3
3303	33030030	KEORA WATER	Panel-3	Panel-3
3303	33030040	PERFUMES AND PERFUMERY COMPOUNDS NOT CONTAINING SPIRIT	Panel-3	Panel-3
3303	33030050	PERFUMES CONTAINING SPIRIT FOR RETAIL SALE	Panel-3	Panel-3
3303	33030060	SPIRITUOUS AND TOILET PREPARATIONS	Panel-3	Panel-3
3303	33030090	OTHER PERFUMES AND TOILET WATERS	Panel-3	Panel-3
3304	33041000	LIP MAKE UP PREPARATIONS	Panel-3	Panel-3
3304	33042000	EYE MAKE UP PREPARATIONS	Panel-3	Panel-3
3304	33043000	MAINCURE OR PEDICURE PREPARATIONS	Panel-3	Panel-3
3304	33049110	POWDER FACE	Panel-3	Panel-3
3304	33049120	POWDER TALCUM	Panel-3	Panel-3
3304	33049190	OTHER FACE/TALCUM W/N COMPRESS	Panel-3	Panel-3
3304	33049910	CREAM FACE	Panel-3	Panel-3
3304	33049920	NAIL POLISH/LACQUERS	Panel-3	Panel-3
3304	33049930	MOISTURISING LOTION	Panel-3	Panel-3
3304	33049940	SINDUR, BINDI, KUMKUM	Panel-3	Panel-3
3304	33049950	TURMERIC PREPARATION ALL TYPES	Panel-3	Panel-3
3304	33049990	OTHER BEAUTY MAKE-UP PREPARATION	Panel-3	Panel-3
3305	33051010	HAIR SHAMPOOS CONTAINING SPIRIT	Panel-3	Panel-3
3305	33051090	OTHER HAIR SHAMPOOS (NON SPIRITUOUS)	Panel-3	Panel-3
3305	33053000	HAIR LACQUERS	Panel-3	Panel-3
3305	33059011	HAIR OIL (PERFUMED)	Panel-3	Panel-3
3305	33059019	OTHER HAIR OIL	Panel-3	Panel-3
3305	33059020	BRILLIANTINE (SPIRITUOUS)	Panel-3	Panel-3
3305	33059030	HAIR CREAMS	Panel-3	Panel-3
3305	33059040	HAIR DYES(NATURAL, HERBAL OR SYNTHETICS)	Panel-3	Panel-3
3305	33059050	HAIR FIXERS	Panel-3	Panel-3
3306	33061010	DENTIFRICES IN POWDER (TOOTH POWDER)	Panel-3	Panel-3
3306	33061020	DENTIFRICES IN PASTE (TOOTH PASTE)	Panel-3	Panel-3
3306	33061090	OTHER DENTIFRICES	Panel-3	Panel-3
3306	33062000	YARN TO CLEAN BETWEEN TEETH (DENTAL FLOSS)	Panel-3	Panel-3

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3307	33071010	SHAVING CREAM	Panel-3	Panel-3
3307	33071090	OTHER PRE-SHAVE, SHAVING OR AFTER SHAVE PREPARATIONS	Panel-3	Panel-3
3307	33072000	PERSONAL DEODORANT AND ANTIPERSPIRANTS	Panel-3	Panel-3
3307	33073010	BATH OIL (THAILAM)	Panel-3	Panel-3
3307	33073090	OTHER PERFUMED BATH SALTS AND OTHER BATH PERPNS.	Panel-3	Panel-3
3307	33074900	OTHER ODORIFERROUS PREPNS USED FOR DEODORING ROOM-OTHERS (EXCL.AGARBATTI)	Panel-3	Panel-3
3307	33079010	DEPILATORIES (SOAP, OTHER HAIR REMOVING SUBSTANCES)	Panel-3	Panel-3
3307	33079020	STERILE CONTACT LENS CARE SOLUTION	Panel-3	Panel-3
3307	33079090	OTHER COSMETICS AND TOILETRIES PREPARATIONS N.E.S.	Panel-3	Panel-3
3401	34011110	MEDICATED SOAP	Panel-3	Panel-3
3401	34011120	SHAVING SOAPS OTHER THAN SHAVING CREAM	Panel-3	Panel-3
3401	34011190	OTHER TOILET SOAPS (INCLUDING MEDICATED PRODUCTS)	Panel-3	Panel-3
3401	34011911	INDUSTRIAL SOAP	Panel-3	Panel-3
3401	34011919	OTHER BARS AND BLOCKS OF NOT LESS THAN 500 GMS IN WT (INDUSTRIAL SOAP)	Panel-3	Panel-3
3401	34011920	FLAKES, CHIPS AND POWDER (INDUSTRIAL SOAP)	Panel-3	Panel-3
3401	34011930	TABLETS AND CAKES (INDUSTRIAL SOAP)	Panel-3	Panel-3
3401	34011941	HOUSEHOLD SOAPS	Panel-3	Panel-3
3401	34011942	LAUNDRY SOAPS	Panel-3	Panel-3
3401	34011990	OTHER HOUSEHOLD AND LAUNDRY SOAP N.E.S. OR INCLUDED	Panel-3	Panel-3
3401	34012000	SOAP IN OTHER FORMS	Panel-3	Panel-3
3401	34013011	MEDICATED TOILET SOAPS	Panel-3	Panel-3
3401	34013012	SHAVING CREAM AND SHAVING GEL	Panel-3	Panel-3
3401	34013090	OTHER ORGANIC SURFACE ACTIVE PRODUCTS AND PREPARATION WASHING THE SKIN IN THE FORM OF LIQUIED	Panel-3	Panel-3
3402	34021110	SILICON SURFACTANTS	Panel-3	Panel-3
3402	34021190	OTHERS (E.G. ALKYL SULPHATES TECH. DODECYL BENZENE-SULPHONATES, ETC.)	Panel-3	Panel-3
3402	34021200	CATIONIC W/N FOR RETAIL SALE	Panel-3	Panel-3
3402	34021300	NON-IONIC W/N FOR RETAIL SALE	Panel-3	Panel-3
3402	34021900	OTHER ORGANIC SURFACE ACTIVE AGENTS W/N FOR RETAIL SALE	Panel-3	Panel-3
3402	34022010	WASHING AND CLEANING PREPARATIONS, HAVING BASIS OF SOAP/OTHER ORGANIC SURFACE ACTIVE	Panel-3	Panel-3
3402	34022020	CLEANING OR DEGREASING PREPARATIONS NOT HAVING A BASIS OF SOAP OR OTHER ORGANIC SURFACE-ACTIVE AGENT	Panel-3	Panel-3
3402	34022090	OTHER ORGANIC SURFACE ACTIVE AGENTS PREPERATIONS PUT UP FOR RETAIL SALE	Panel-3	Panel-3
3402	34029011	SYNTHETIC DETERGENTS(WASHING AND CLEANING PREPARATION)	Panel-3	Panel-3
3402	34029012	SYNTHETIC DETERGENTS (CLEANING OR DEGREASING PREPN)	Panel-3	Panel-3

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3402	34029019	OTHER SYNTHETIC DETERGNTS	Panel-3	Panel-3
3402	34029041	WASHING AND CLEANING PREPARATIONS HAVING BASIS OF SOAP/OTHER ORGANIC SURFACE ACTIVE (WETTING AGENT)	Panel-3	Panel-3
3402	34029042	CLEANING OR DEGREASING PREPRNS NOT HAVING A BASIS OF SOAP OR OTHER ORGANIC SURFACE (WETTING AGENT)	Panel-3	Panel-3
3402	34029049	OTHER (WETTING AGENTS)	Panel-3	Panel-3
3402	34029051	WASHING AND CLEANING PREPNS HAVING BASIS OF SOAP/OTHER ORGANIC SURFACE ACTIVE (WASHING PREPNS)	Panel-3	Panel-3
3402	34029052	CLEANING OR DEGREASING PREPNS NOT HAVING A BASIS OF SOAP OR OTHER ORGANIC SURFACE (WASHING PREPNS)	Panel-3	Panel-3
3402	34029059	OTHER (WASHING PREPARATIONS)	Panel-3	Panel-3
3402	34029091	WASHING AND CLEANING PREPNS HAVING BASIS OF SOAP/OTHER ORGANIC SURFACE ACTIVE (OTHER PREPNS)	Panel-3	Panel-3
3402	34029092	CLEANING OR DEGREASING PREPN NOT HAVING BASIS OF SOAP/OTHER ORGANIC SURFACE ACTIVE (OTHER PREPNS)	Panel-3	Panel-3
3402	34029099	OTHER (OTHER PREPARATIONS) NES	Panel-3	Panel-3
3404	34049020	POLYETHYLENE WAX	Panel-2	Panel-2
3404	34049039	OTHER ARTIFICIAL WAXES, PREPARED WAXES NOT EMULSIFIED OR CONTAINING SOLVENTS	Panel-2	Panel-2
3404	34049090	OTHER ARTIFICIAL WAXES AND PREPARED WAXES NES	Panel-2	Panel-2
3405	34054000	SCOURING PASTES, POWDER AND OTHER SCORING PREPARATIONS	Panel-3	Panel-3
3504	35040010	PEPTONES	Panel-2	Panel-2
3504	35040099	OTHERS PEPTONES, THEIR DERIVATIVES; OTHER PROTEIN SUBSTANCES THEIR DERIVATIVES, N.E.S.	Panel-2	Panel-2
3505	35051090	OTHER DEXTRINS AND OTHER MODIFIED STARCHES	Panel-2	Panel-2
3507	35079010	INDUSTRIAL ENZYMES (TEXTILE ASSISTANT)	Panel-2	Panel-2
3802	38029012	ACTIVATED BAUXITE	Panel-2	Panel-2
3802	38029019	OTHER ACTIVATED NATURAL MINERAL PRODUCTS	Panel-2	Panel-2
3803	38030000	TALL OIL WHETHER OR NOT REFINED	Panel-2	Panel-2
3805	38051020	GUM TERPENTINE OIL	Panel-2	Panel-2
3805	38051030	SULPHATE TURPENTINE OIL	Panel-2	Panel-2
3805	38052000	PINE OIL	Panel-2	Panel-2
3805	38059010	TERPENICOILS PRODUCED BY THE DISTILLATION OR OTHER TREATMENT OF CONIFEROUS WOODS	Panel-2	Panel-2
3805	38059020	CRUDE DIPENTENE	Panel-2	Panel-2
3806	38062000	SALTS OF ROSIN, OF RESIN ACIDS OR OF DERIVATIVES OF ROSIN OR RESIN ACIDS, OTHER THAN SALTS OF ROSIN	Panel-2	Panel-2
3806	38069010	RUN GUMS	Panel-2	Panel-2
3807	38070010	WOOD TAR	Panel-2	Panel-2
3807	38070020	WOOD TAR OILS, WOOD CREOSOTE, WOOD NAPHTHA	Panel-2	Panel-2
3807	38070030	VEGETABLE PITCH, BREWERS' PITCH AND SIMILAR	Panel-2	Panel-2

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3808	38085000	ALDRIN	Panel-2	Panel-2
3808	38089111	ALUMINIUM PHOSPHITE (E.G. PHOSTOXIN)	Panel-2	Panel-2
3808	38089112	CALCIUM CYANIDE	Panel-2	Panel-2
3808	38089113	D.D.V.P. (DIMETHYL- DICHLORO- VINYL PHOSPHATE)	Panel-2	Panel-2
3808	38089121	DIAGINAL	Panel-2	Panel-2
3808	38089122	METHYL BROMIDE	Panel-2	Panel-2
3808	38089123	DIMETHOATE TECHNICAL GRADE	Panel-2	Panel-2
3808	38089124	MELATHION	Panel-2	Panel-2
3808	38089131	ENDOSULPHAN TECHNICAL GRADE	Panel-2	Panel-2
3808	38089132	QUINALPHOS	Panel-2	Panel-2
3808	38089133	ISOPROTURON	Panel-2	Panel-2
3808	38089134	FENTHION	Panel-2	Panel-2
3808	38089135	CYPERMETHRIN TECHNICAL GRADE	Panel-2	Panel-2
3808	38089136	ALLETHRIN	Panel-2	Panel-2
3808	38089137	SYNTHETIC PYRETHRUM	Panel-2	Panel-2
3808	38089191	REPELLANT FOR INSECTS SUCH AS FLIES, MOSQUITO	Panel-2	Panel-2
3808	38089192	PAPER IMPREGNATED WITH INSECTICIDE SUCH AS DDT COATED PAPER	Panel-2	Panel-2
3808	38089199	OTHER INSECTICIDE N.E.S.	Panel-2	Panel-2
3808	38089210	MANEB	Panel-2	Panel-2
3808	38089220	SODIUM PENTA CHLOROPHENATE	Panel-2	Panel-2
3808	38089230	THIRAM (TETRAMETHYL THIRAM DI SULPHATE)	Panel-2	Panel-2
3808	38089240	ZINEB	Panel-2	Panel-2
3808	38089250	COPPER OXYCHLORIDE	Panel-2	Panel-2
3808	38089290	OTHER FUNGICIDES	Panel-2	Panel-2
3808	38089310	CHLOROMETHYL PHENOXY ACETIC ACID (M.C.P.A.)	Panel-2	Panel-2
3808	38089320	2:4 DICHLOROPHENOXY ACTC ACD & ITS ESTERS	Panel-2	Panel-2
3808	38089330	GIBBERELLIC ACID	Panel-2	Panel-2
3808	38089340	PLANT GROWTH REGULATORS	Panel-2	Panel-2
3808	38089350	WEEDICIDES AND WEED KILLING AGENTS	Panel-2	Panel-2
3808	38089390	OTHER HERBICIDES, ANTI-S-SPROUTING PRODUCTS AND PLANT GROWTH REGULATORS	Panel-2	Panel-2
3808	38089400	DISINFECTANTS	Panel-2	Panel-2
3808	38089910	PESTICIDES, NOT ELSEWHERE SPECIFIED OR INCLUDED	Panel-2	Panel-2
3808	38089990	OTHER SIMILAR PRODUCTS N.E.S.	Panel-2	Panel-2
3809	38091000	PREPARATIONS WITH A BASIS OF AMYLACEUS SUBSTANCES	Panel-2	Panel-3
3809	38099110	TEXTILE ASSISTANTS MORDANTING AGENTS	Panel-3	Panel-3
3809	38099120	TEXTILE ASSISTANTS DESIZING AGENTS	Panel-3	Panel-3

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3809	38099130	TEXTILE ASSISTANTS DISPERSING AGENTS	Panel-3	Panel-3
3809	38099140	TEXTILE ASSISTANTS EMULSIFYING AGENTS	Panel-3	Panel-3
3809	38099150	TEXTILE ASSISTANTS HYDROSULPHITE FORMALDEHYDE	Panel-3	Panel-3
3809	38099160	TEXTILE ASSISTANTS-TEXTILE PRESERVATIVES	Panel-3	Panel-3
3809	38099170	TEXTILE ASSISTANTS WATER PROOFING AGENTS	Panel-3	Panel-3
3809	38099180	PREPARED GLZINGS, DRSSINGS ETC FOR TEXTILE INDUSTRY	Panel-4	Panel-3
3809	38099190	OTHER TEXTILE ASSISTANTS	Panel-3	Panel-3
3809	38099310	FATTY OIL OR PULL UP OIL	Panel-4	Panel-3
3810	38101010	PICKLING PREPARATIONS AND OTHER SOLDERING, BRAZING OR WELDING POWDER/PASTES	Panel-2	Panel-2
3811	38112100	ADDITIVES FOR LUBRICATING OILS CONTAINING PETROLEUM OILS OR OILS OBTAINED FROM BITUMINOUS MINERALS	Panel-4	Panel-4
3811	38112900	OTHER ADDITIVES FOR LUBRICATING OILS	Panel-4	Panel-4
3812	38121000	PREPARED RUBBER ACCELERATORS	Panel-4	Panel-4
3812	38122090	OTHER COMPOUND PLASTICISERS FOR RUBBER OR PLASTICS	Panel-4	Panel-4
3812	38123010	ANTI-OXIDANTS FOR RUBBER	Panel-4	Panel-4
3812	38123020	RUBBER SOFTENER	Panel-4	Panel-4
3812	38123030	VULCANISING AGENTS FOR RUBBER	Panel-4	Panel-4
3812	38123090	RUBBER CHEMICAL-N.E.S.(BLOWING AGENT)	Panel-4	Panel-4
3813	38130000	PREPARATIONS AND CHARGES FOR FIRE EXTINGUISHERS; CHARGED FIRE-EXTINGUISHING GRENADES	Panel-4	Panel-4
3814	38140010	ORGANIC COMPOSITE SOLVENTS AND THINNERS N.E.S.	Panel-2	Panel-2
3814	38140020	PREPARED PAINT OR VARNISH REMOVERS	Panel-4	Panel-2
3815	38151100	SUPPORTED CATALYSTS WITH NICKEL OR NICKEL COMPOUNDS AS THE ACTIVE SUBSTANCE	Panel-2	Panel-2
3815	38151210	PLATINUM OR PALLADIUM CATALYSTS WITH A BASE OF ACTIVATED CARBON	Panel-2	Panel-2
3815	38151290	OTHER PLATINUM OR PALLADIUM CATALYSTS WITH A BASE OF ACTIVATED CARBON	Panel-2	Panel-2
3815	38151900	OTHER SUPPORTED CATALYSTS	Panel-4	Panel-2
3817	38170011	LINEAR ALKYLBENZENE	Panel-2	Panel-2
3817	38170019	OTHER MIXED ALKYL- BENZENE	Panel-2	Panel-2
3819	38190010	HYDRAULIC BRAKE FLUIDS	Panel-2	Panel-2
3820	38200000	ANTI FREEZING PREPARAIONS AND PREPARED DE-ICING FLUIDS	Panel-4	Panel-4
3821	38210000	PREPARED CULTURE MEDIA FOR DEVELOPMENT OF MICRO ORGANISMS	Panel-2	Panel-2
3823	38231111	PALM STEARIN: CRUDE	Panel-3	Panel-3
3823	38231112	PALM STEARIN: RBD	Panel-3	Panel-3
3823	38231119	PALM STEARIN: OTHER	Panel-3	Panel-3
3823	38231190	OTHER STEARIC ACID/STEARIN	Panel-3	Panel-3
3823	38231200	OLEIC ACID	Panel-3	Panel-3

Product Category	HS Code	Product	Panels in which product category is considered for 'India Export Analysis'	Panels in which product category is considered for 'Global Import Analysis'
3823	38231300	TALL OIL FATTY ACIDS	Panel-3	Panel-3
3823	38231900	OTHER INDUSTRIAL MONOCARBOXYLIC FATTY ACID	Panel-3	Panel-3
3823	38237010	CETYL ALCOHOL	Panel-2	Panel-3
3823	38237020	LAURYL ALCOHOL	Panel-2	Panel-3
3823	38237030	OLEYL ALCOHOL	Panel-2	Panel-3
3823	38237040	STEARYL ALCOHOL	Panel-2	Panel-3
3823	38237090	OTHER INDUSTRIAL FATTY ALCOHOL	Panel-2	Panel-3
3824	38241000	PREPARED BINDERS FOR FOUNDRY MOULDS OR CORES	Panel-4	Panel-2
3824	38242010	COPPER NAPHTHENATE	Panel-2	Panel-2
3824	38242020	NAPHTHENIC ACID	Panel-2	Panel-2
3824	38242090	OTHER NAPHTHENIC ACIDS THEIR WATER IN SOLUBLE SALTS AND THEIR ESTERS	Panel-2	Panel-2
3824	38244010	DAMP PROOF OR WATER PROOF COMPOUNDS	Panel-4	Panel-2
3824	38249012	CASE HARDENING COMPOUNDS (HEAT TREATMENT SALTS)	Panel-2	Panel-2
3824	38249013	HEAT TRANSFER SALTS	Panel-2	Panel-2
3824	38249014	MIXTURE OF DIPHENYL AND DIPHENYLOXIDE AS HEAT TRANSFER MEDIUM	Panel-2	Panel-2
3824	38249015	MIXED POLYETHYLENE GLYCOLS	Panel-2	Panel-2
3824	38249016	SALTS FOR CURING OR SALTING	Panel-2	Panel-2
3824	38249017	SURFACE TENSION REDUCING AGENTS	Panel-2	Panel-2
3824	38249021	ELECTROPLATING SALTS	Panel-2	Panel-2
3824	38249022	WATER TREATMENT CHEMICALS ION EXCHANGER(INN)SUCH AS PERMIUTITS, ZEOLITES	Panel-4	Panel-2
3824	38249025	PRECIPITATED SILICA AND SILICA GEL	Panel-2	Panel-2
3824	38249026	OIL WELL CHEMICALS	Panel-4	Panel-2
3824	38249031	MIXTURE CONTAINING PERHALOGENATED DERIVATIVES OF ACYCLIC CONTAINING TWO OR MORE FFERENCEHYDROCARBONS	Panel-2	Panel-2
3824	38249032	FERRITE POWDER	Panel-2	Panel-2
3824	38249033	CAPACITOR FLUIDS PCB TYPE	Panel-4	Panel-2
3824	38249034	DIPPING OIL FOR TREATMENT OF GRAPES	Panel-4	Panel-2
3824	38249035	POLY BROMINATED BIPHENYLS, POLY CHLORINATED BIPHENYLS, POLY CHLORINATED TERPHENYLS, CROCIDOLITE	Panel-2	Panel-2
3825	38254100	HALOGENATED WASTE ORGANIC SOLUTIONS	Panel-2	Panel-2
3825	38254900	OTHER WASTE ORGANIC SOLVENTS	Panel-2	Panel-2
3825	38255000	WASTES OF METALPICKING LIQUORS, HYDRAULIC FLUIDS, BRAKE FLUIDS AND ANTO FREEZE FLUIDS	Panel-2	Panel-2
3825	38256100	OTHER WASTE MAINLY CONTAINING ORGANIC CONSTITUENTS	Panel-2	Panel-2
3912	39123100	CARBOXY METHYL CELLULOSE AND ITS SALTS	Panel-2	Panel-2

About CHEMEXCIL

Basic Chemicals, Cosmetics & Dyes Export Promotion Council popularly known as CHEMEXCIL is set up by the Ministry of Commerce & Industry Government of India in the year 1963 with the objective of promoting exports of the following items from India to various countries abroad. These items have been grouped into IV separate Panels:

- Panel - I : Dyes and Dye Intermediates
- Panel - II : Basic Inorganic & Organic Chemicals, including Agrochemicals
- Panel - III : Cosmetics, Soaps, Toiletries & Essential Oils
- Panel - IV : Specialty Chemicals, Lubricants And Castor oil

Shri Satish W Wagh
Chairman & Member Basic Inorganic & Organic Chemicals including Agro Chemicals Panel

Shri S.G. Mokashi
Addl. Vice Chairman
CHEMEXCIL

Shri Suhas G. Bharadi
Executive Director
CHEMEXCIL

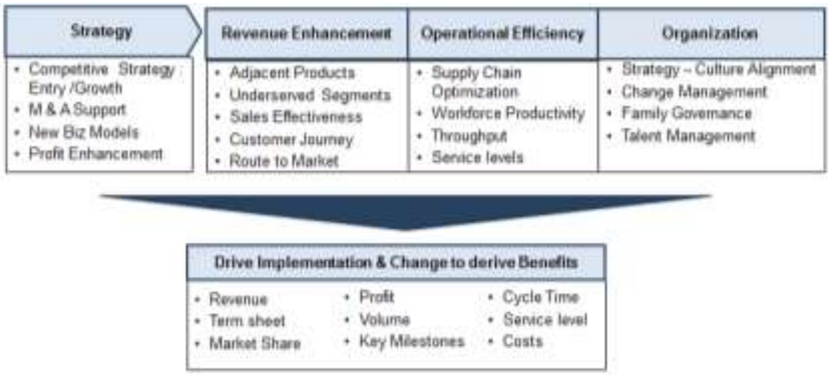
About TATA Strategic

Founded in 1991 as a division of Tata Industries Ltd, Tata Strategic Management Group is the largest Indian own management consulting firm. It has a 50 member strong consulting team supported by a panel of domain experts. Tata Strategic has undertaken 500+ engagements, with over 100 clients, across countries and sectors.

A majority of revenues now come from outside the group and more than 20% revenues from outside India.

Tata Strategic offers a comprehensive range of solutions covering Direction Setting, Driving Strategic Initiatives and Implementation Support

Our Offerings: We offer End to End Solutions …with tangible Results / Benefits



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