

# **India's International Trade of Four Specific Commodities in the Recent Past**

## **Some Insights**

### **Preface**

The study uses trade indicators to analyse merchandise export and import data in a way that should be useful for the purpose of policy. The indicators provide a glimpse of the trade patterns of the world and the performance of India in comparison to various other countries. They have been used in the case of India's exports of **Woven Fabrics of Jute & Mono Carboxylic Fatty Acids** and imports of **Unwrought Lead and Uncoated Kraft Paper and Paper Board** to indicate the possible directions policy may take.

The data used in this study has been sourced from the Export Import Data Bank of the DGCI&S, Department of Commerce, and Government of India and from the United Nations Comtrade Database. Introduction notes of each commodities has been sourced from the various sights –viz Wikipedia, Britannica, The Economic Times etc.

Computations are based on data at ITC-HS four-digit level ( ITC-HS Code-5310 & 3823 for export and 7801 & 4801 for import ) and the latest finalized data available on the UN Comtrade Database up to year 2021 and on the DGCI&S Database up to August'2022. So, trends from 2018 to 2021 have been shown when we extract the data from UN Comtrade and from 2018 to 2021 have been shown when we extract the data from DGCIS Data base.

In this report, we will see various analysis and aspects of India's Precious as well as International export trade of Woven fabrics of Jute & Tube or Pipe fittings of Iron and Steel and imports of Unwrought Lead and Uncoated Kraft Paper and Paper Board. We will use both the 4 digit Commodity codes.

Trends in India's as well as International Trade i.e. Exports and Imports of above four Commodities are given below in different tables :

- **Table 1 : India's top 10 Export destination of Woven fabrics of Jute with their shares in percentage.**
- **Table 2 : World's top 10 Exporters of Woven Fabrics of Jute with their shares in percentage.**
- **Table 3 : World's top 10 Importers of Woven fabrics of Jute with their shares in percentage.**
- **Annex- I : Top 3 sources of Woven fabrics of Jute of World's top 3 Importers.**
- **Table 4 : India's top 10 destination of Mono Carboxylic Fatty Acids with their shares in percentage.**
- **Table 5 : World's top 10 Exporters of Mono Carboxylic Fatty Acids with their shares in percentage.**
- **Table 6 : World's top 10 Importers of Mono Carboxylic Fatty Acids with their shares in percentage.**
- **Annex-II : Top 3 sources of Mono Carboxylic Fatty Acids of World's top 3 Importers.**
- **Table 7 : India's top10 Sources of Unwrought Led with their shares in percentage.**
- **Table 8 : World's top 10 Importers of Unwrought Led with their shares in percentage.**
- **Table 9 : India's top 10 Sources of Uncoated Paper and Paper Board with their shares in percentage.**
- **Table 10 : World's top 10 Importers of Uncoated Paper and Paper Board with their shares in percentage.**

## EXPORT

### Woven Fabrics of Jute

**Jute** is a long, soft, shiny bast fiber that can be spun into coarse, strong threads. It is produced from flowering plants in the genus *Corchorus*, which is in the mallow family Malvaceae. The primary source of the fiber is *Corchorus olitorius*, but such fiber is considered inferior to that derived from *Corchorus capsularis*.<sup>1</sup> "Jute" is the name of the plant or fiber used to make burlap, hessian, or gunny cloth.

Jute is one of the most affordable natural fibers and second only to cotton in the amount produced and variety of uses. Jute fibers are composed primarily of the plant materials cellulose and lignin. Jute fiber falls into the bast fiber category (fiber collected from bast, the phloem of the plant, sometimes called the "skin") along with kenaf, industrial hemp, flax (linen), ramie, etc. The industrial term for jute fiber is *raw jute*. The fibers are off-white to brown and 1–4 meters (3–13 feet) long. Jute is also called the "golden fiber" for its color and high cash value.

The bulk of the jute trade is centered in South Asia, with India and Bangladesh as the primary producers. The majority of jute is used for sustainable packaging, for products like coffee bags. However, production has not scaled sufficiently to provide a widespread substitute for less sustainable materials like plastic.

The jute plant needs plain alluvial soil and standing water. During the monsoon season, the monsoon climate offers a suitable environment for growing jute (warm and wet). Temperatures from 20 to 40 °C (68–104 °F) and relative humidity of 70%–80% are favorable for successful cultivation. Jute requires 5–8 cm (2–3 in) of rainfall weekly and more during the sowing time. Soft water is necessary for jute production.

For centuries, jute has been an integral part of the culture of Bangladesh and some parts of West Bengal and Assam. The British started trading in jute during the seventeenth century. During the reign of the British Empire, jute was also used in the military.

The jute fiber comes from the stem and ribbon of the jute plant. The fibers are first extracted by retting. The retting process consists of bundling jute stems together and immersing them in slow running water. There are two types of retting: stem and ribbon. After the retting process, stripping begins; women and children usually do this job. In the stripping process, non-fibrous matter is scraped off, then the workers dig in and grab the fibers from within the jute stem.

Jute is a rain-fed crop with little need for fertilizer or pesticides, in contrast to cotton's heavy requirements. Production in India is concentrated mostly in West Bengal. India is the world's largest producer of jute, but imported approximately 162,000 tonnes of raw fiber and 175,000 tonnes of jute products in 2011. India, Pakistan, and China import significant quantities of jute fiber and products from Bangladesh, as do the United Kingdom, Japan, United States, France, Spain, Ivory Coast, Germany and Brazil.

The fibers are used alone or blended with other types of fiber to make twine and rope. Jute butts, the coarse ends of the plants, are used to make inexpensive cloth. Conversely, very fine threads of jute can be separated out and made into imitation silk. As jute fibers are also being used to make pulp and paper, and with increasing concern over forest destruction for the wood pulp used to make most paper, the importance of jute for this purpose may increase. Jute has a long history of use in the sackings, carpets, wrapping fabrics, and construction fabric manufacturing industry.

Jute was used in traditional textile machinery as fibers having cellulose and lignin. But, the major breakthrough came when the automobile, pulp and paper, and the furniture and bedding industries started to use jute and its allied fibers with their non-woven and composite technology to manufacture nonwovens, technical textiles, and composites. Therefore, jute has changed its textile fiber outlook and steadily heading towards its newer identity, i.e., wood fiber. As a textile fiber, jute has reached its peak from where there is no hope of progress, but as a wood fiber jute has many promising features.

These are broadly classified under **H.S. Code-5310**.

Table - 1

**India's Top 10 destination of Woven Fabrics of Jute (H.S Code-5310)**

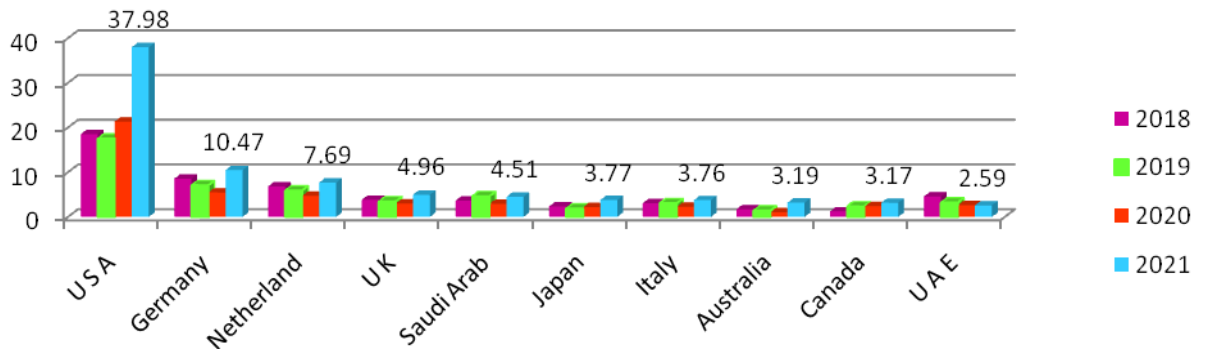
Rank	Countries	2018		2019		2020		2021	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	U S A	18.51	23.40	17.54	23.94	21.35	32.65	37.98	35.15
2.	Germany	8.57	10.83	7.09	9.68	5.48	8.38	10.47	9.69
3.	Netherland	6.83	8.63	5.92	8.08	4.75	7.26	7.69	7.12
4.	U K	3.83	4.84	3.48	4.75	3.02	4.62	4.96	4.59
5.	Saudi Arab	3.63	4.59	4.63	6.32	2.92	4.47	4.51	4.17
6.	Japan	2.36	2.98	1.89	2.58	2.18	3.33	3.77	3.49
7.	Italy	3.08	3.89	3.06	4.18	2.26	3.46	3.76	3.48
8.	Australia	1.72	2.17	1.43	1.95	1.07	1.64	3.19	2.95
9.	Canada	1.24	1.57	2.33	3.18	2.42	3.70	3.17	2.93
10.	U A E	4.56	5.76	3.22	4.39	2.63	4.02	2.59	2.40
	Others	24.76	31.30	22.70	30.98	17.30	26.46	25.95	24.02
	<b>Total</b>	79.10	100	73.27	100	65.39	100	108.05	100

Source: DGCI&S.

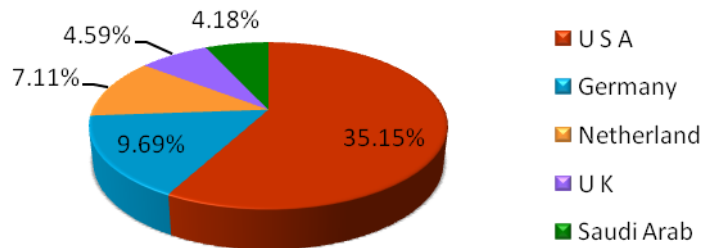
Note : India's Export including re-export

Leading importers of Woven Fabrics of Jute from India from 2018-2021(Values in million USD)

Data label given on the basis of 2021



India's top 5 destinations of Woven Fabrics of Jute by percentage India in 2021:



In India has exported Woven Fabrics of Jute of US \$ 108.05 million which was US \$ 43.11 Million more than the year 2020. The figures show the great potential for India's export of Woven Fabrics of Jute to increase its share in global market. USA is the largest market for Woven Fabrics of Jute export from India. In 2021, USA imported US \$ 38 million worth of Woven Fabrics of Jute from India, which was accounted 35.15 % of India's total export of Woven Fabrics of Jute. It was followed by Germany (9.69%) and Netherland (7.12%). The top 5 countries account for 75.98% of the total Woven Fabrics of Jute export from India in that year.

Table-2

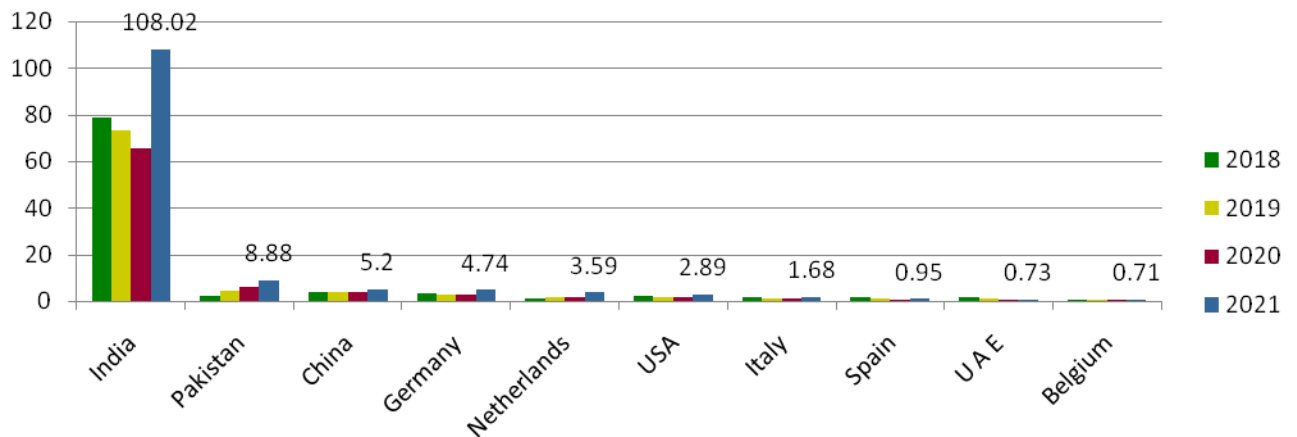
**World's Top 10 exporter of Woven Fabrics of Jute (H.S Code-5310)**

Rank	Countries	2018		2019		2020		2021	
		Value (million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	<b>India</b>	<b>78.67</b>	<b>64.48</b>	<b>73.28</b>	<b>58.12</b>	<b>65.34</b>	<b>74.25</b>	<b>108.02</b>	<b>76.44</b>
2.	Pakistan	1.89	1.55	4.60	3.65	6.06	6.89	8.88	6.28
3.	China	3.60	2.95	3.68	2.92	3.67	4.17	5.20	3.68
4.	Germany	3.09	2.53	2.86	2.27	2.84	3.23	4.74	3.35
5.	Netherlands	1.17	0.96	1.71	1.36	1.84	2.09	3.59	2.54
6.	USA	1.90	1.56	1.84	1.46	1.36	1.55	2.89	2.05
7.	Italy	1.34	1.10	1.19	0.94	0.93	1.06	1.68	1.19
8.	Spain	1.48	1.21	1.01	0.80	0.50	0.57	0.95	0.67
9.	U A E	1.66	1.36	1.11	0.88	0.49	0.56	0.73	0.52
10.	Belgium	0.44	0.36	0.47	0.37	0.57	0.65	0.71	0.50
	Others	26.76	21.93	34.36	27.25	4.40	5.00	3.92	2.77
	<b>Total</b>	122.00	100	126.09	100	88.00	100	141.31	100

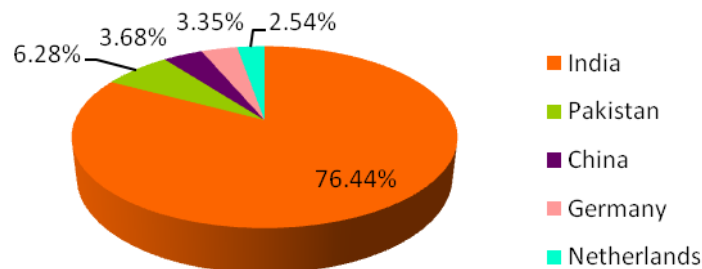
Source: UN Comtrade

Leading Exporters of Woven Fabrics of Jute of world from 2018 to 2021 (Values in million USD)

Data label given on the basis of 2021



Country wise world's leading exporter of Woven Fabrics of Jute by percentage in 2021 :



The total worth value of Woven Fabrics of Jute export around the world in year 2021 was US \$ 141.31 Million. Between 2020 and 2021 the exports of Woven Fabrics of Jute increased by US \$ 61.14, from 2020. **India** was the largest exporter of Woven Fabrics of Jute in the world in 2021. In that year India exported US \$ 108 Million worth value of these commodities, which was accounted 76.44% of world export, which was distantly followed by Pakistan and China with share of 6.28 % and 3.68% of world export of Woven Fabrics of Jute respectively.

Table-3

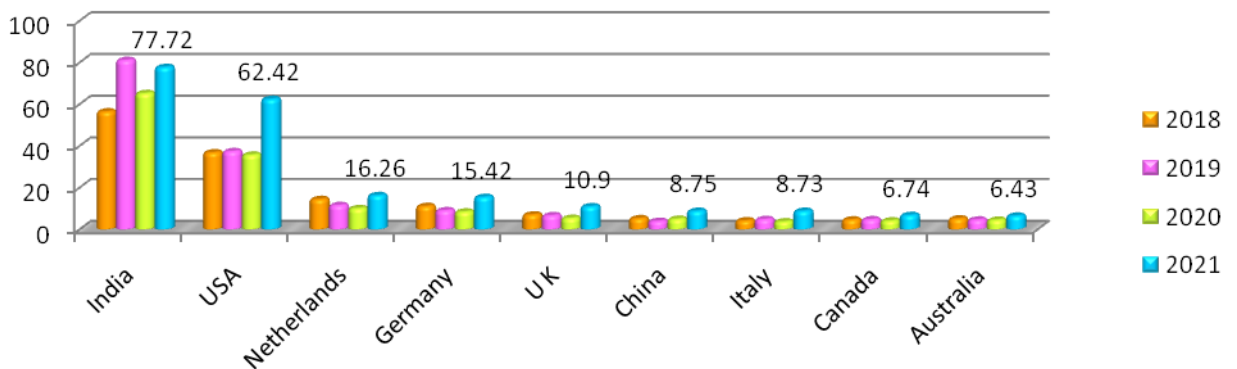
**World's top 10 Importers of Woven Fabrics of Jute (H.S Code-5310)**

Rank	Countries	2018		2019		2020		2021	
		Value ( million \$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)
1.	<b>India</b>	<b>56.44</b>	<b>26.13</b>	<b>81.10</b>	<b>36.08</b>	<b>65.21</b>	<b>35.03</b>	<b>77.72</b>	<b>29.79</b>
2.	USA	36.81	17.04	37.36	16.62	35.69	19.17	62.42	23.92
3.	Netherlands	14.38	6.66	11.51	5.12	10.00	5.37	16.26	6.23
4.	Germany	11.03	5.11	9.02	4.01	8.39	4.51	15.42	5.91
5.	U K	6.97	3.23	6.62	2.94	5.35	2.87	10.90	4.18
6.	China	5.17	2.39	3.86	1.72	4.91	2.64	8.75	3.35
7.	Italy	4.15	1.92	4.76	2.12	3.66	1.97	8.73	3.35
8.	Canada	4.61	2.13	4.69	2.09	4.09	2.20	6.74	2.58
9.	Australia	5.07	2.35	4.55	2.02	4.47	2.40	6.43	2.46
10.	Japan	5.12	2.37	3.58	1.59	3.67	1.97	4.64	1.78
	Others	66.23	30.66	57.73	25.68	40.74	21.88	42.89	16.44
	<b>Total</b>	215.99	100	224.80	100	186.16	100	260.91	100

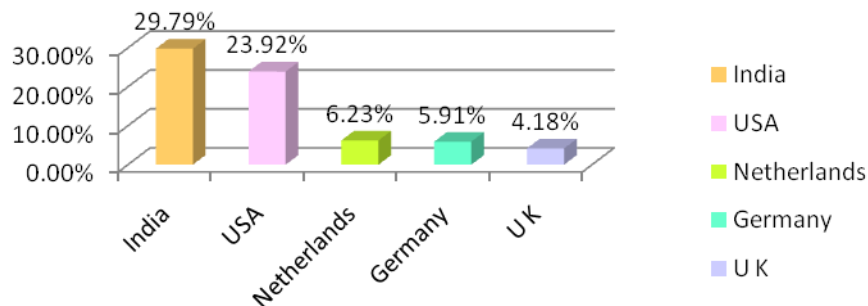
Source : UN Comtrade

Leading Woven Fabrics of Jute importers of world from 2018 to 2021 (**Values in million USD**)

Data label given on the basis of 2021



Country wise world's leading importers of Woven Fabrics of Jute by percentage in 2021

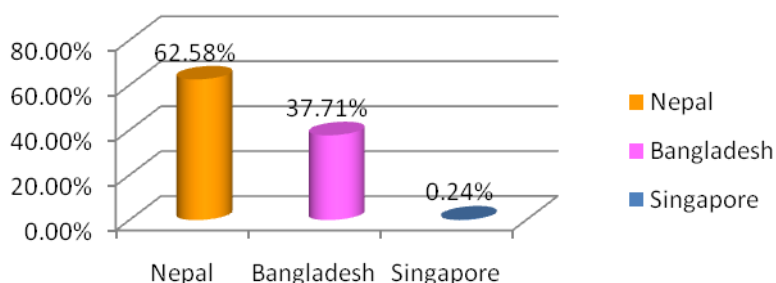


The total value of world import of Woven Fabrics of Jute importers was US \$ 260.91 Million in 2021. In that year the top importing countries were **India** ( US \$ 77.72 M ), USA ( US \$ 62.42 M), Netherland( US \$ 16.26 M), Germany ( US \$ 15.42M) and UK ( US \$ 10.90 M). Here it is noticeable that India was the top exporter in the world as well the top importer also during the review period. In the same year the top five importing countries together imported 70.03% share of world import of Woven Fabrics of Jute importers.

## Annexure-1

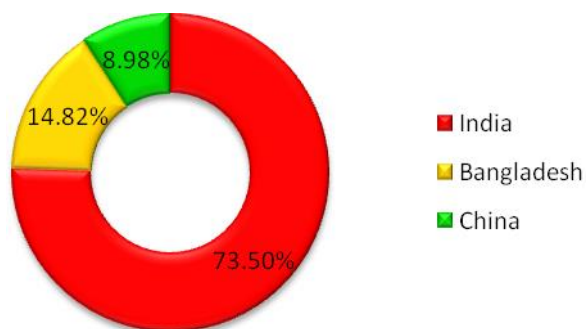
**Sources of world's top 3 importers of Woven Fabrics of Jute (H.S Code-5310)**

i) Top 3 Sources of Woven Fabrics of Jute to India in 2021 by percentage:



India imported most of its Woven Fabrics of Jute from Nepal, 62.58% share of India's total import value of it came from Nepal in 2021 followed by Bangladesh (37.71%) and Singapore (0.24%).  
(Source : UN Comtrade).

ii) Top 3 Sources of Woven Fabrics of Jute to USA in 2021 by percentage:



India was the primary source of Woven Fabrics of Jute to USA. USA imported 73.50% of Woven Fabrics of Jute from India in 2021, distantly followed by Bangladesh (14.82%) & China (8.98%).  
(Source : UN Comtrade)

iii) Top 3 Sources of Woven Fabrics of Jute to Netherland in 2021 by percentage:

India's 3 major source countries of Coconuts, Brazil nuts and cashew nuts in 2020 were Tanzania (19.81%), Benin (15.86%) and Ghana (12.58%) in 2020. (Source: UN Comtrade)

## Mono Carboxylic Fatty Acids

**Fatty acid**, important component of lipids (fat-soluble components of living cells) in plants, animals, and microorganisms. Generally, a fatty acid consists of a straight chain of an even number of carbon atoms, with hydrogen atoms along the length of the chain and at one end of the chain and a carboxyl group ( $\text{—COOH}$ ) at the other end. It is that carboxyl group that makes it an acid (carboxylic acid). If the carbon-to-carbon bonds are all single, the acid is saturated; if any of the bonds is double or triple, the acid is unsaturated and is more reactive. A few fatty acids have branched chains; others contain ring structures (e.g., prostaglandins). Fatty acids are not found in a free state in nature; commonly they exist in combination with glycerol (an alcohol) in the form of triglyceride.

Among the most widely distributed fatty acids are the 16- and 18-carbon fatty acids, otherwise known as palmitic acid and stearic acid, respectively. Both palmitic and stearic acids occur in the lipids of the majority of organisms. In animals palmitic acid makes up as much as 30 percent of body fat. It accounts for anywhere from 5 to 50 percent of lipids in vegetable fats, being especially abundant in palm oil. Stearic acid is abundant in some vegetable oils (e.g., cocoa butter and shea butter) and makes up a relatively high proportion of the lipids found in ruminant tallow.

Many animals cannot synthesize linoleic acid (an omega-6 fatty acid) and alpha-linolenic acid (an omega-3 fatty acid). Those fatty acids are required, however, for cellular processes and the production of other necessary omega-3 and omega-6 fatty acids. Thus, because they must be taken in through the diet, they are called essential fatty acids. Omega-6 and omega-3 fatty acids derived from linoleic acid and alpha-linolenic acid, respectively, are needed conditionally by many mammals—they are formed in the body from their parent fatty acids but not always at levels needed to maintain optimal health or development. Human infants, for example, are thought to have a conditionally essential need for docosahexaenoic acid (DHA), which is derived from alpha-linolenic acid, and possibly also for arachidonic acid, which is derived from linoleic acid.

Fatty acids have a wide range of commercial applications. For example, they are used not only in the production of numerous food products but also in soaps, detergents, and cosmetics. Soaps are the sodium and potassium salts of fatty acids. Some skin-care products contain fatty acids, which can help maintain healthy skin appearance and function. Fatty acids, particularly omega-3 fatty acids, are also commonly sold as dietary supplements.

Alkaline hydrolysis, or saponification, of fats yields soaps, which are the sodium or potassium salts of fatty acids; pure stearic acid is obtained with difficulty from such a mixture by crystallization, vacuum distillation, or chromatography of the acids or suitable derivatives. The pure acid undergoes chemical reactions typical of carboxylic acids. It is a colourless, waxy solid that is almost insoluble in water.

Carbohydrates are converted into pyruvate by glycolysis as the first important step in the conversion of carbohydrates into fatty acids. Pyruvate is then decarboxylated to form acetyl-CoA in the mitochondrion. However, this acetyl CoA needs to be transported into cytosol where the synthesis of fatty acids occurs. This cannot occur directly. To obtain cytosolic acetyl-CoA, citrate (produced by the condensation of acetyl-CoA with oxaloacetate) is removed from the citric acid cycle and carried across the inner mitochondrial membrane into the cytosol. There it is cleaved by ATP citrate lyase into acetyl-CoA and oxaloacetate. The oxaloacetate is returned to the mitochondrion as malate. The cytosolic acetyl-CoA is carboxylated by acetyl CoA carboxylase into malonyl-CoA, the first committed step in the synthesis of fatty acids.

These are broadly classified under **H.S. Code-3823**.

Table - 4

**India's Top 10 destination of Mono Carboxylic Fatty Acids (HS Code –3823)**

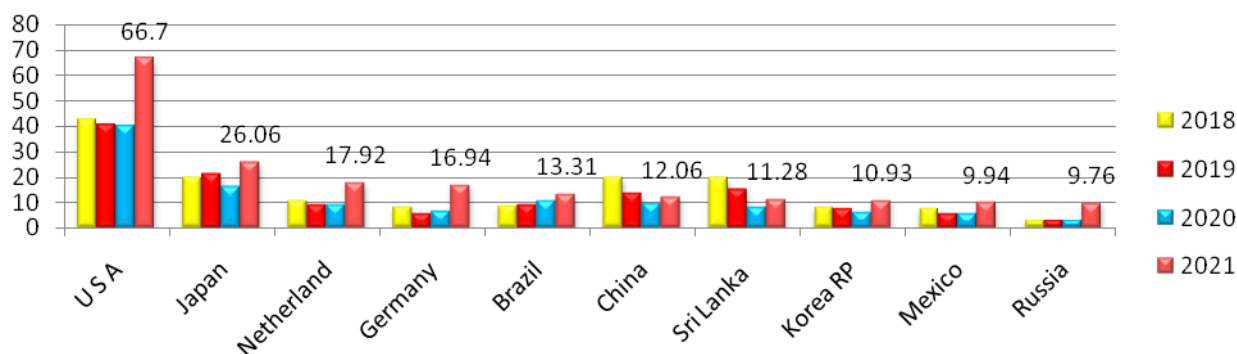
Rank	Countries	2018		2019		2020		2021	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	U S A	42.52	19.48	40.54	19.70	40.13	22.94	66.70	22.46
2.	Japan	19.82	9.08	21.22	10.31	16.34	9.34	26.06	8.78
3.	Netherland	10.68	4.89	9.29	4.51	9.23	5.28	17.92	6.03
4.	Germany	8.37	3.84	5.75	2.79	6.43	3.68	16.94	5.70
5.	Brazil	8.71	3.99	9.32	4.53	10.61	6.07	13.31	4.48
6.	China	19.78	9.06	13.97	6.79	9.89	5.65	12.06	4.06
7.	Sri Lanka	19.60	8.98	15.09	7.33	8.31	4.75	11.28	3.80
8.	Korea RP	8.16	3.74	7.56	3.67	6.19	3.54	10.93	3.68
9.	Mexico	7.43	3.40	5.62	2.73	5.88	3.36	9.94	3.35
10.	Russia	2.92	1.34	3.28	1.59	3.04	1.74	9.76	3.29
	Others	70.25	32.19	74.17	36.04	58.89	33.66	102.05	34.37
	<b>Total</b>	218.24	100	205.80	100	174.93	100	296.95	100

Source: DGCI&S

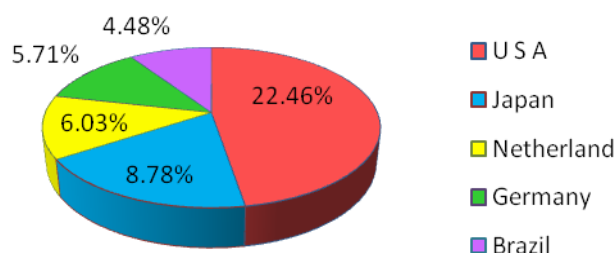
Note : India's Export including re-export

India's major destination Mono Carboxylic Fatty Acids from 2018-2021(Values in million USD)

Data label given on the basis of 2021



India's top 5 major destinations of Mono Carboxylic Fatty Acids by percentage India in 2021:



The data provided on the export analysis shows that there are so many countries, which actively import Mono Carboxylic Fatty Acids from India. The combined value of total export is US \$ 296.95 Million in 2021 which was increased by more than 50% compare to the year 2020. In the same year India's Mono Carboxylic Fatty Acids export Value to USA was US \$ 66.70 Million, which holds the top position with the share of 22.46 % of the total export value of India. With 8.78% share Netherland took runner up position in the global importers of Mono Carboxylic Fatty Acids from India and Japan was the 2<sup>nd</sup> runner up with 6.03 % share of India's total export in 2021.



Table - 5

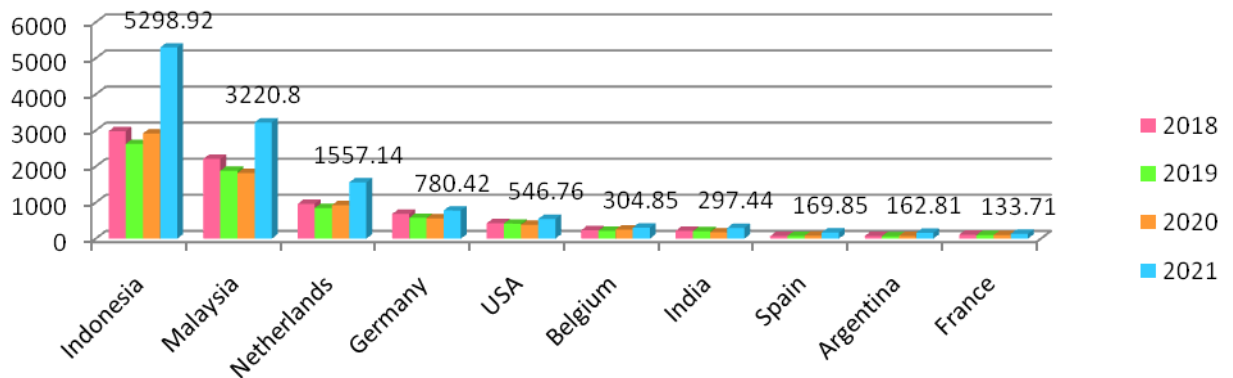
**World's Top 10 exporters of Mono Carboxylic Fatty Acids (HS Code –3823)**

Rank	Countries	2017		2018		2019		2020	
		Value ( million \$ )	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	Indonesia	2980.46	33.47	2625.77	33.82	2916.21	36.02	5298.92	39.87
2.	Malaysia	2208.14	24.80	1880.65	24.22	1816.25	22.43	3220.80	24.23
3.	Netherlands	962.39	10.81	848.88	10.93	926.89	11.45	1557.14	11.72
4.	Germany	683.96	7.68	576.00	7.42	564.75	6.98	780.42	5.87
5.	USA	426.80	4.79	415.02	5.35	383.47	4.74	546.76	4.11
6.	Belgium	233.42	2.62	216.63	2.79	249.29	3.08	304.85	2.29
7.	<b>India</b>	<b>218.13</b>	<b>2.45</b>	<b>205.74</b>	<b>2.65</b>	<b>174.88</b>	<b>2.16</b>	<b>297.44</b>	<b>2.24</b>
8.	Spain	68.87	0.77	72.62	0.94	78.28	0.97	169.85	1.28
9.	Argentina	73.51	0.83	66.90	0.86	76.07	0.94	162.81	1.22
10.	France	109.55	1.23	98.69	1.27	98.94	1.22	133.71	1.01
	Others	940.32	10.56	757.27	9.75	811.73	10.03	818.89	6.16
	<b>Total</b>	8905.56	100	7764.17	100	8096.76	100	13291.58	100

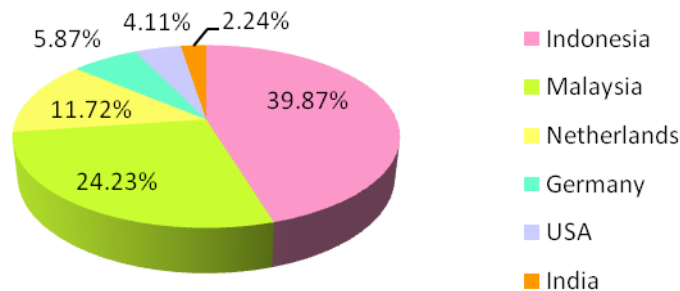
Source: UN Comtrade

Leading Mono carboxylic Fatty Acids exporters of world from 2018 to 2021 (Values in million USD)

Data label given on the basis of 2021



Export trends in world's leading Mono carboxylic Fatty Acids exporters by percentage in 2021:



In value terms, exports amounted to US \$ 13.29 Billion in 2021, grew by more than 64% over the last year. Indonesia was the main global supplier of Mono carboxylic Fatty Acids with a worth value of US \$ 5.30 Billion which was accounted by almost 39.87% share of global exports in that year. It was followed by Malaysia (24.23%) and Netherlands (11.72%). Though, the India is one of the largest producer of Iron or Steel. However, **India** stood at 7<sup>th</sup> position in ranking in the world with 2.24% share of world export of Mono carboxylic Fatty Acids in 2021.

Table - 6

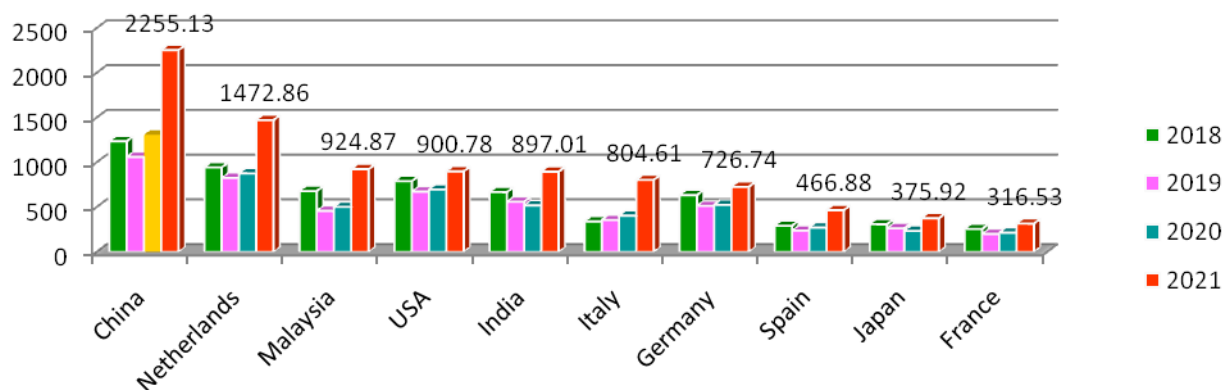
**World's Top 10 Importers of Mono Carboxylic Fatty Acids (HS Code –3823)**

Rank	Countries	2018		2019		2020		2021	
		Value ( million \$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	China	1236.62	12.44	1062.10	12.74	1308.19	14.86	2255.13	18.24
2.	Netherlands	945.06	9.51	827.03	9.92	877.71	9.97	1472.86	11.91
3.	Malaysia	679.99	6.84	459.44	5.51	503.75	5.72	924.87	7.48
4.	USA	791.57	7.96	674.52	8.09	697.71	7.92	900.78	7.28
5.	<b>India</b>	<b>668.00</b>	<b>6.72</b>	<b>560.80</b>	<b>6.73</b>	<b>519.76</b>	<b>5.90</b>	<b>897.01</b>	<b>7.25</b>
6.	Italy	340.97	3.43	356.54	4.28	404.99	4.60	804.61	6.51
7.	Germany	634.94	6.39	514.77	6.18	525.99	5.97	726.74	5.88
8.	Spain	292.28	2.94	238.73	2.86	272.15	3.09	466.88	3.78
9.	Japan	309.26	3.11	264.20	3.17	235.37	2.67	375.92	3.04
10.	France	256.56	2.58	201.32	2.42	215.00	2.44	316.53	2.56
	Others	3787.42	38.09	3176.02	38.10	3245.33	36.85	3224.11	26.07
	<b>Total</b>	9942.67	100	8335.47	100	8805.96	100	12365.45	100

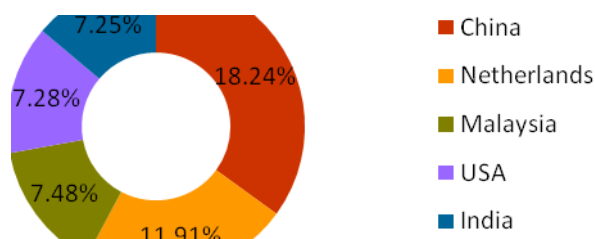
Source :UNComtrade

Major Mono Carboxylic Fatty Acids importers of world from 2018 to 2021 (Values in million USD)

Data label given on the basis of 2021



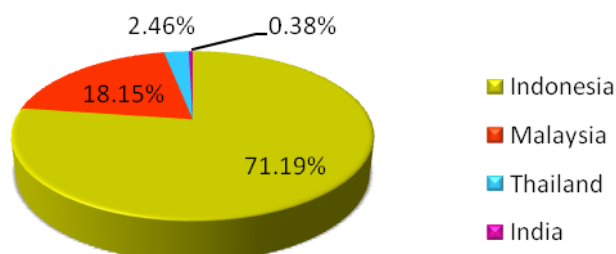
Country wise world's top Importer of Mono Carboxylic Fatty Acids import by percentage in 2021 :



The volume of global imports of Mono Carboxylic Fatty Acids totaled US \$ 12.36 Billion in 2021. The China remains the Largest Global Importer of Mono Carboxylic Fatty Acids, comprising 18.24% of global imports in 2021. Imports into the China increased by nearly 72% over the last year's export. It was followed by Netherlands (11.91%), Malaysia (7.48%), USA(7.28%) of global import of Mono Carboxylic Fatty Acids. In that year **India** imported only 7.25% share of global import of Mono Carboxylic Fatty Acids and stood at 5<sup>th</sup> rank in the world.

**Sources of world's top three importers of Mono Carboxylic Fatty Acids (HS Code 3823).**

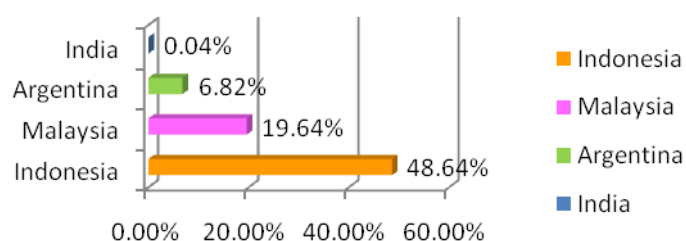
i) Top 3 Sources of Mono Carboxylic Fatty Acids to China in 2021 by percentage:



China's most of its Mono Carboxylic Fatty Acids came from Indonesia with 71.19% share of its import of the commodity 2021. It was distantly followed by Malaysia and Thailand were found to be the 2<sup>nd</sup> and 3<sup>rd</sup> largest exporters of Mono Carboxylic Fatty Acids to China by 18.15% and 2.46% shares of China's total import respectively in 2021. India's contribution was only 0.38%.

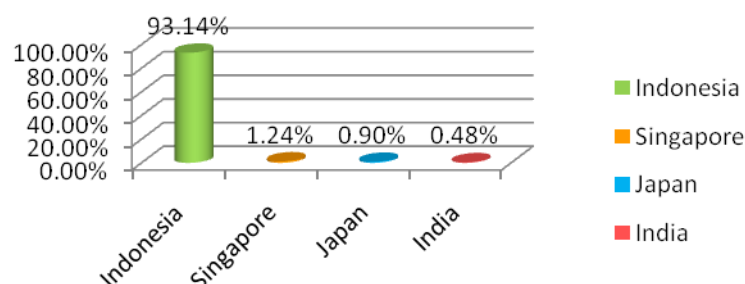
(Source: UN Comtrade)

ii) Top 3 Sources of Mono Carboxylic Fatty Acids to Netherland in 2021 by percentage:



48.64% share of Mono Carboxylic Fatty Acids imports to Netherland came from Indonesia in 2021, followed by Malaysia (19.64%) and Argentina (6.82%). In the same year Germany imports of Mono Carboxylic Fatty Acids only 0.04% from India. (Source: UN Comtrade)

iii) Top 3 Sources of Mono Carboxylic Fatty Acids to Malaysia in 2021 by percentage:



With 93.14% share of Malaysia's total import, Indonesia became the largest source of Mono Carboxylic Fatty Acids to Malaysia in 2021. Singapore (1.24%) and Japan (0.90%) were other major sources of Mono Carboxylic Fatty Acids to Malaysia in that year. India's share was only 0.48% of Malaysia's total import in 2021. (Source : UN Comtrade)

# IMPORT

## Unwrought Lead

Lead is a [chemical element](#) with the [symbol](#) **Pb** (from the [Latin](#) *plumbum*) and [atomic number](#) 82. It is a [heavy metal](#) that is [denser](#) than most common materials. Lead is [soft](#) and [malleable](#), and also has a relatively low [melting point](#). When freshly cut, lead is silvery with a hint of blue; it [tarnishes](#) to a dull gray color when exposed to air. Lead has the highest atomic number of any [stable element](#) and three of its isotopes are endpoints of major nuclear [decay chains](#) of heavier elements.

Lead is a relatively unreactive [post-transition metal](#). Its weak metallic character is illustrated by its [amphoteric](#) nature; lead and [lead oxides](#) react with [acids](#) and [bases](#), and it tends to form [covalent bonds](#). [Compounds of lead](#) are usually found in the +2 [oxidation state](#) rather than the +4 state common with lighter members of the [carbon group](#). Exceptions are mostly limited to [organolead compounds](#). Like the lighter members of the group, lead tends to [bond with itself](#); it can form chains and polyhedral structures.

Since lead is easily extracted from its [ores](#), prehistoric people in the Near East [were aware of it](#). [Galena](#) is a principal ore of lead which often bears silver. Interest in silver helped initiate widespread extraction and use of lead in [ancient Rome](#). Lead production declined after the [fall of Rome](#) and did not reach comparable levels until the [Industrial Revolution](#). Lead played a crucial role in the development of the [printing press](#), as [movable type](#) could be relatively easily cast from lead alloys. In 2014, the annual global production of lead was about ten million tonnes, over half of which was from recycling. Lead's high density, low melting point, [ductility](#) and relative inertness to [oxidation](#) make it useful. These properties, combined with its relative abundance and low cost, resulted in its extensive use in construction, plumbing, [batteries](#), bullets and [shot](#), weights, [solders](#), [pewters](#), [fusible alloys](#), [white paints](#), [leaded gasoline](#), and [radiation shielding](#).

[Lead's toxicity](#) became widely recognized in the late 19th century, although a number of well-educated ancient Greek and Roman writers were aware of this fact and even knew some of the symptoms of lead poisoning. Lead is a [neurotoxin](#) that accumulates in soft tissues and bones; it damages the [nervous system](#) and interferes with the function of biological [enzymes](#), causing [neurological disorders](#) ranging from behavioral problems to brain damage, and also affects general health, cardiovascular, and renal systems.

Metallic lead beads [dating back to 7000–6500 BCE](#) have been found in [Asia Minor](#) and may represent the first example of metal [smelting](#). At that time lead had few (if any) applications due to its softness and dull appearance. The major reason for the spread of lead production was its association with silver, which may be obtained by burning galena (a common lead mineral) The [Ancient Egyptians](#) were the first to use lead minerals in cosmetics, an application that spread to [Ancient Greece](#) and beyond; the Egyptians may have used lead for sinkers in fishing nets, [glazes](#), glasses, [enamels](#), and for ornaments. Various civilizations of the [Fertile Crescent](#) used lead as a writing material, as [coins](#), and as a construction material. Lead was used in the [Ancient Chinese](#) royal court as a [stimulant](#), as currency, and as a [contraceptive](#); the [Indus Valley civilization](#) and the [Mesoamericans](#) used it for making amulets; and the eastern and southern African peoples used lead in [wire drawing](#).

The top three producers of refined lead were China, the United States, and India. According to the [International Resource Panel's Metal Stocks in Society report](#) of 2010, the total amount of lead in use, stockpiled, discarded, or dissipated into the environment, on a global basis, is 8 kg per capita. Much of this is in more developed countries (20–150 kg per capita) rather than less developed ones (1–4 kg per capita).

These are broadly classified under **H. S. Code 7801**.

Table - 7

**India's Top 10 Sources of Unwrought Lead ( H.S. Code - 7801)**

Rank	Countries	2018		2019		2020		2021	
		Value ( million \$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)
1.	Korea RP	183.50	28.40	154.44	31.35	96.35	30.68	155.17	29.59
2.	U A E	60.99	9.44	43.73	8.88	32.33	10.30	69.59	13.27
3.	Malaysia	40.44	6.26	55.31	11.23	26.56	8.46	39.96	7.62
4.	Singapore	9.96	1.54	18.99	3.85	10.27	3.27	33.64	6.41
5.	Philippines	1.51	0.23	10.83	2.20	8.42	2.68	24.54	4.68
6.	Tanzania	15.93	2.47	12.81	2.60	6.36	2.03	19.23	3.67
7.	Senegal	3.92	0.61	6.85	1.39	5.08	1.62	14.65	2.79
8.	Sri Lanka	14.10	2.18	14.75	2.99	5.43	1.73	14.29	2.72
9.	Viet Nam	64.42	9.97	42.83	8.69	26.17	8.33	13.18	2.51
10.	Saudi Arab	5.72	0.89	3.25	0.66	1.75	0.56	11.31	2.16
	Others	245.70	38.02	128.88	26.16	95.29	30.35	128.93	24.58
	<b>Total</b>	646.19	100	492.65	100	314.00	100	524.49	100

Source: DGCI&amp;S

Note : India's Import including re-import

The dollar value of Unwrought Lead import in 2021 stood at US \$ 524.49 Million and US \$ 646.19 Million in 2018, which shows a decline trends. In the 2021 the import of Unwrought Lead in India grew by more than 67% compare to the year 2020. In 2021 India imported Unwrought Lead maximum worth value of US \$ 155.17 Million from Rep. of Korea or 29.59% of India's total import, which was greater than the previous year Unwrought Lead shipments from Rep. of Korea into India. In second and third place were UAE and Malaysia, from where India imported around 20.89% share of Unwrought Lead. The top 10 countries shared 75.42% of the Unwrought Lead import to India in 2021.

Table - 8

**World's Top 10 Importer of Unwrought Lead ( H.S. Code - 7801)**

Rank	Countries	2018		2019		2020		2021	
		Value (million\$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)
1.	USA	1308.50	16.82	1043.71	15.80	740.72	13.64	1411.95	22.56
2.	U K	437.20	5.62	418.31	6.33	368.22	6.78	541.19	8.65
<b>3.</b>	<b>India</b>	<b>643.36</b>	<b>8.27</b>	<b>492.68</b>	<b>7.46</b>	<b>487.44</b>	<b>8.98</b>	<b>524.37</b>	<b>8.38</b>
4.	Germany	500.09	6.43	432.80	6.55	362.51	6.68	475.31	7.60
5.	Czechia	392.15	5.04	329.16	4.98	273.60	5.04	409.91	6.55
6.	Turkey	344.67	4.43	267.56	4.05	255.81	4.71	352.08	5.63
7.	Spain	251.45	3.23	235.53	3.57	203.95	3.76	252.11	4.03
8.	Poland	225.32	2.90	183.49	2.78	141.11	2.60	217.93	3.48
9.	Italy	270.76	3.48	195.46	2.96	158.34	2.92	200.14	3.20
10.	Brazil	173.26	2.23	119.53	1.81	103.47	1.91	197.26	3.15
	Others	3233.30	41.56	2887.50	43.71	2335.21	43.00	1675.86	26.78
	<b>Total</b>	<b>7780.05</b>	<b>100</b>	<b>6605.73</b>	<b>100</b>	<b>5430.39</b>	<b>100</b>	<b>6258.12</b>	<b>100</b>

Source :UNComtrade

In 2021, the global refined lead imports amounted to US \$ 6.25 Billion, increasing by more than 15% against the previous year figure. Over the period under review, global refined lead imports reached its maximum level of US \$ 7.78 Billion in 2018, however, from 2019 to 2020, it failed to regain its strength. In 2021 USA (US \$ 1.41 B) constitutes the largest market for imported refined lead worldwide, making up 22.56 % of global imports. The second position in the ranking was occupied by UK (US \$ 541.19 M), with the share of 8.65% of global imports. It was followed by the **India**, with the share of 8.38%. These three major importing countries represented 39.59% of total global import of Unwrought Lead in 2021.

## Uncoated Kraft Paper and Paper Board

Kraft paper or Kraft ispaper or paperboard (cardboard) produced from chemical pulp produced in the Kraft process.

Pulp produced by the Kraft process is stronger than that made by other pulping processes; acidic sulfite processes degrade cellulose more, leading to weaker fibers, and mechanical pulping processes leave most of the lignin with the fibers, whereas Kraft pulping removes most of the lignin present originally in the wood. Low lignin is important to the resulting strength of the paper, as the hydrophobic nature of lignin interferes with the formation of the hydrogen bonds between cellulose (and hemicellulose) in the fibers.

Kraft pulp is darker than other wood pulps, but it can be bleached to make very white pulp. Fully bleached Kraft pulp is used to make high quality paper where strength, whiteness, and resistance to yellowing are important.

Paperboard is a thick paper-based material. While there is no rigid differentiation between paper and paperboard, paperboard is generally thicker (usually over 0.30 mm, 0.012 in, or 12 points) than paper and has certain superior attributes such as fold ability and rigidity. According to ISO standards, paperboard is a paper with a grammage above 250 g/m<sup>2</sup>, but there are exceptions. Paperboard can be single- or multi-ply.

Paperboard can be easily cut and formed, is lightweight, and because it is strong, is used in packaging. Another end-use is high quality graphic printing, such as book and magazine covers or postcards. Paperboard is also used in fine arts for creating sculptures.

Wood pulp for sack paper is made from softwood by the Kraft process. The long fibers provide the paper its strength and wet strength chemicals are added to even further improve the strength. Both white and brown grades are made. Sack paper is then produced on a paper machine from the wood pulp. The paper is microcrepped to give porosity and elasticity. Microcrepping is done by drying with loose draws allowing it to shrink. This causes the paper to elongate 4% in the machine direction and 10% in the cross direction without breaking.<sup>121</sup> Machine direction elongation can be further improved by pressing between very elastic cylinders causing more microcrepping. The paper may be coated with polyethylene (PE) to ensure an effective barrier against moisture, grease and bacteria, although recyclability is hindered. Zein coatings are also water resistant but allow better recyclability.

A paper sack can be made of several layers of sack paper depending on the toughness needed. Kraft paper is produced on paper machines with moderate machine speeds. The raw material is normally softwood pulp from the Kraft process. The Kraft process can use a wider range of fiber sources than most other pulping processes. All types of wood, including very resinous types like southern pine, and non-wood species like bamboo and kenaf can be used in the Kraft process.

Kraft paper and paper board, produced from chemical pulp, is used vastly in the packaging industry especially in the western countries and North America. Countries like India, China, and Brazil are further expanding its usage and so the business is further expected to rise in the coming future. The elastic Kraft papers are found in many types in the market, for instance, extensible, semi extensible, natural, and coated Kraft paper. India alone accounts for 3 % of the total annual paper demand, globally. Kraft papers are considered as a best form of wrapping paper due to its strength, elasticity, low price, quality from carrier perspective, durability, etc.

In 2019, Uncoated Kraft Paper were the world's 256th most traded product, with a total trade of \$13.9B. Between 2018 and 2019 the exports of Uncoated Kraft Paper decreased by -12.5%, from \$15.9B to \$13.9B. Trade in Uncoated Kraft Paper represent 0.077% of total world trade.

In 2019 the top exporters of Uncoated Kraft Paper were United States, Sweden, Germany, Austria, and Finland whereas in 2019 the top importers of Uncoated Kraft Paper were Germany, China, Italy, Mexico, and United States.

These are broadly classified under the ITCHS Code-4804.

Table 15 : India's Top 10 Sources of Uncoated Kraft Paper and Paper Board (HS Code : 4804)

Rank	Countries	2018		2019		2020		2021	
		Value ( million \$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)	Value ( million\$)	Share (%)
1.	Chile	55.57	32.74	59.56	33.65	34.45	31.97	63.63	32.04
2.	Indonesia	27.63	16.28	25.89	14.63	15.20	14.10	33.96	17.10
3.	Austria	8.42	4.96	8.08	4.57	5.37	4.98	12.95	6.52
4.	Australia	9.00	5.30	9.23	5.22	6.16	5.72	8.92	4.49
5.	China	0.06	0.04	0.72	0.41	1.80	1.67	7.66	3.86
6.	Czech Rep	3.94	2.32	7.30	4.12	5.03	4.67	7.56	3.81
7.	Canada	5.89	3.47	7.34	4.15	5.32	4.94	7.43	3.74
8.	Bosnia	6.29	3.71	9.70	5.48	5.01	4.65	6.90	3.47
9.	Denmark	3.92	2.31	3.89	2.20	2.61	2.42	4.49	2.26
10.	Poland	1.38	0.81	0.48	0.27	0.84	0.78	4.39	2.21
	Others	47.64	28.07	44.78	25.30	25.98	24.11	40.74	20.51
	<b>Total</b>	169.73	100	176.98	100	107.77	100	198.63	100

Source: DGCI&S

Note : India's Import including re-import

Chile, Indonesia and Austria are the top three countries from which India imported Uncoated Kraft Paper and Paper Board, with import value shares of 32.04%, 17.10 % and 6.52 % respectively in 2021. Thus Indian Uncoated Kraft Paper and Paper Board imports of value more than 56% shares of India's import of the commodity were sourced from these three countries in 2021. India's import of the commodity was increasing up to the year 2019 whereas it has decreased to US \$ 107.77 million in the year 2021 from US \$ 176.98 million in 2019, Further increased to US \$ 198.63 Million in 2021 from US \$ 107.77 Million in 2020.



Table 16 : World's top 10 Importers of Uncoated Kraft Paper and Paper Board (HS Code : 4804)

Rank	Countries	2018		2019		2020		2021	
		Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)	Value (million\$)	Share (%)
1.	Germany	1556.76	10.18	1332.29	9.85	1251.89	9.95	1518.16	10.93
2.	China	1358.84	8.88	1028.77	7.61	1221.56	9.71	1179.29	8.49
3.	Italy	1083.20	7.08	963.64	7.12	828.60	6.59	974.78	7.02
4.	Mexico	844.82	5.52	841.25	6.22	745.52	5.93	962.88	6.93
5.	USA	814.71	5.33	820.60	6.07	722.05	5.74	849.15	6.11
6.	Canada	495.62	3.24	504.37	3.73	509.21	4.05	598.20	4.31
7.	Spain	582.04	3.80	504.29	3.73	457.61	3.64	577.65	4.16
8.	U K	505.80	3.31	410.43	3.03	391.67	3.11	512.30	3.69
9.	Netherlands	456.04	2.98	425.46	3.15	435.01	3.46	504.41	3.63
10.	Turkey	425.30	2.78	310.03	2.29	365.64	2.91	434.88	3.13
<b>14.</b>	<b>India</b>	<b>169.80</b>	<b>1.11</b>	<b>177.13</b>	<b>1.31</b>	<b>161.62</b>	<b>1.29</b>	<b>198.63</b>	<b>1.43</b>
	Others	7006.34	45.80	6209.22	45.90	5485.85	43.62	5579.94	40.17
	<b>Total</b>	<b>15299.27</b>	<b>100</b>	<b>13527.46</b>	<b>100</b>	<b>12576.23</b>	<b>100</b>	<b>13890.25</b>	<b>100</b>

Source: UN Comtrade

Germany tops the world in terms import of Uncoated Kraft Paper and Paper Board and its share in the world export of it was nearly 11% of the total world import value of Uncoated Kraft Paper and Paper Board in 2021, followed by China and Italy. In the year 2021 **India** imports US \$ 198.63 million and comes at 14<sup>th</sup> rank in the world. The trends of world import of Uncoated Kraft Paper and Paper Board is increasing from 2018 to 2020 however in the year 2021 it has increased by nearly 10.44% compare to that in the year 2020.