GLOBAL CASTOR CONFERENCE - 2024

Castor & Castor Oil Derivatives Market Outlook In Japan

Yosuke Kusumoto
Kusumoto Chemicals, Ltd

Collaboration with Japanese Specialized Magazine
" The Fats and Oils "

Kusumoto Chemicals, Ltd.

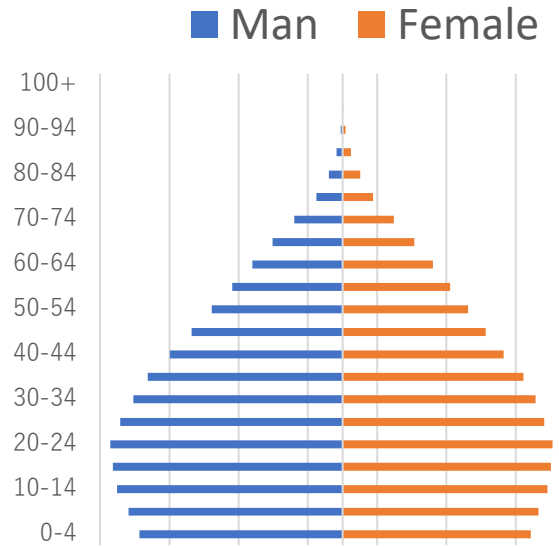
AGENDA

1. India vs Japan
2. Foreign National Coexistence Policy in Japan
3. Japan Castor Oil & Castor Oil Derivatives Market
   - ► Castor Oil
   - ► Castor Oil Derivatives
     HCO, 12HSA, Sebacic Acid, Ricinoleic Acid, Others
4. Products utilizing Castor Oil Derivatives in Japan
5. Company Introduction
   - ► Monthly Specialized Magazine “Fats and Oils”
   - ► Kusumoto Chemicals Ltd.,

INDIA VS JAPAN

India

(1,428,000,000 people in 2023)



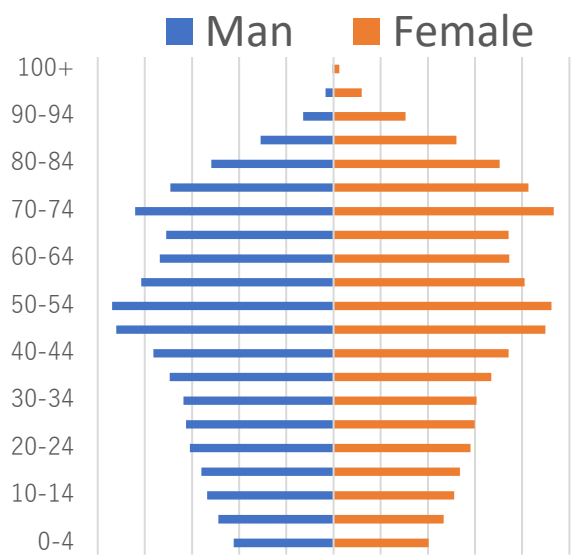
Median Population
28 years
48 years

Female's Average Lifespan
71 years
89 years

Man's Average Lifespan
68 years
82 years

Japan

(124,240,000 people in 2023)



Land Area
2,973,193Km²
364,485Km²

Labor Force Population
524 Million
65 Million

GDP per Capita
6,600 $
45,565 $

Government Debt
71% of GDP
238% of GDP

Agricultural Land
61%
13%

Inflation Rate
5.1%
2.5%

Real GDP Growth Rate
6.7%
1.7%

Educational Expenses
3.8% of GDP
3.5% of GDP

India
Japan

versus.com (As of Nov.2023)

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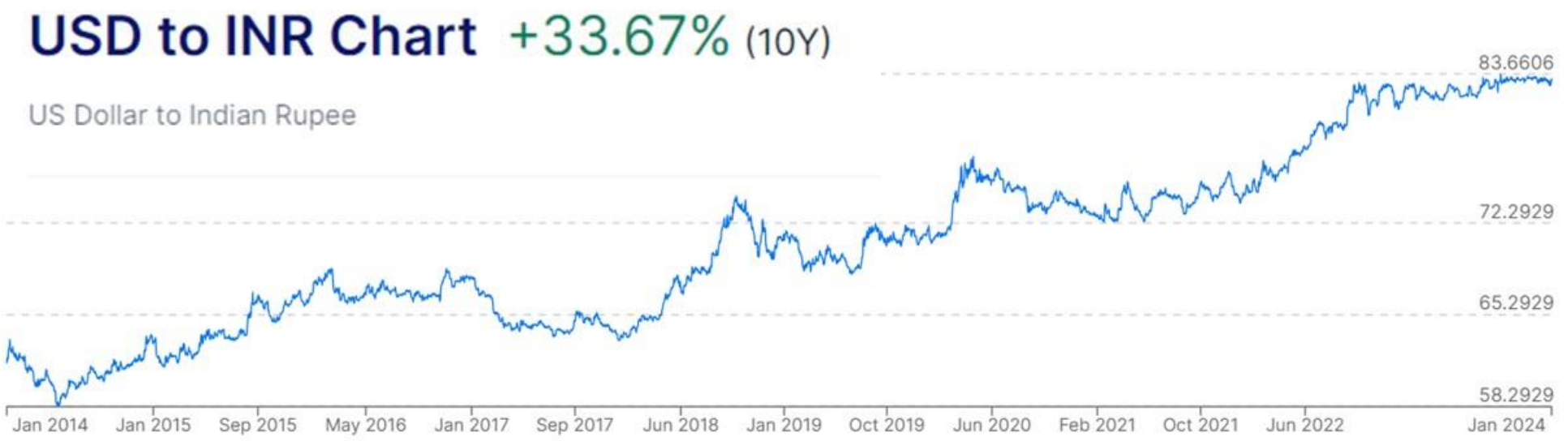
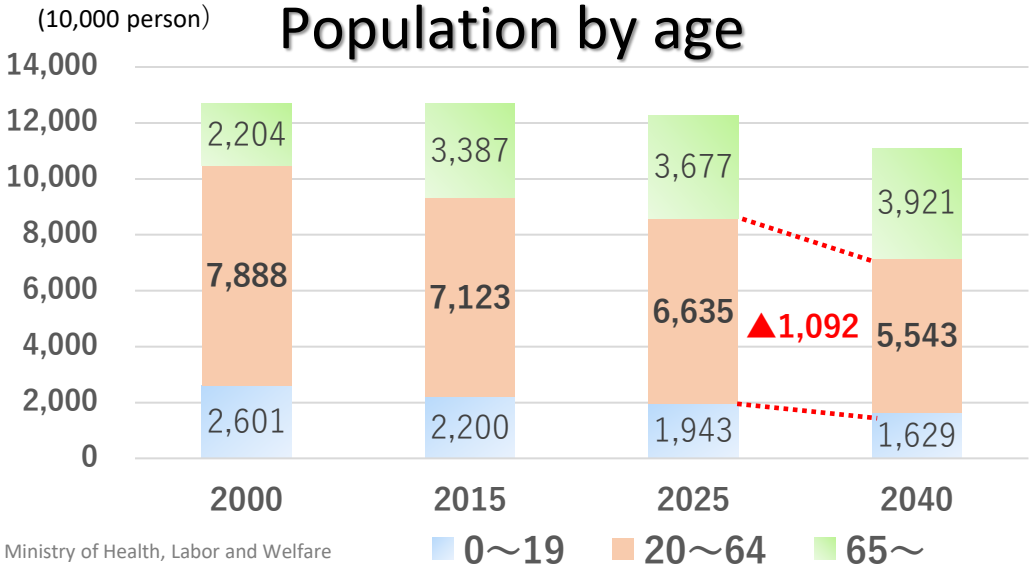
INDIA VS JAPAN



Xe.com (As of Feb.7th 2024)

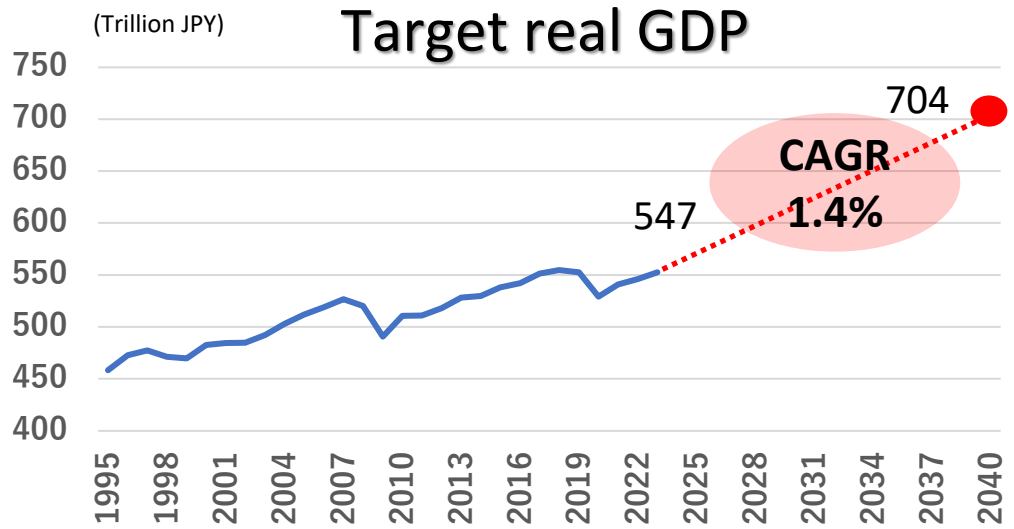
FOREIGN NATIONAL COEXISTENCE POLICY IN JAPAN

Population by age



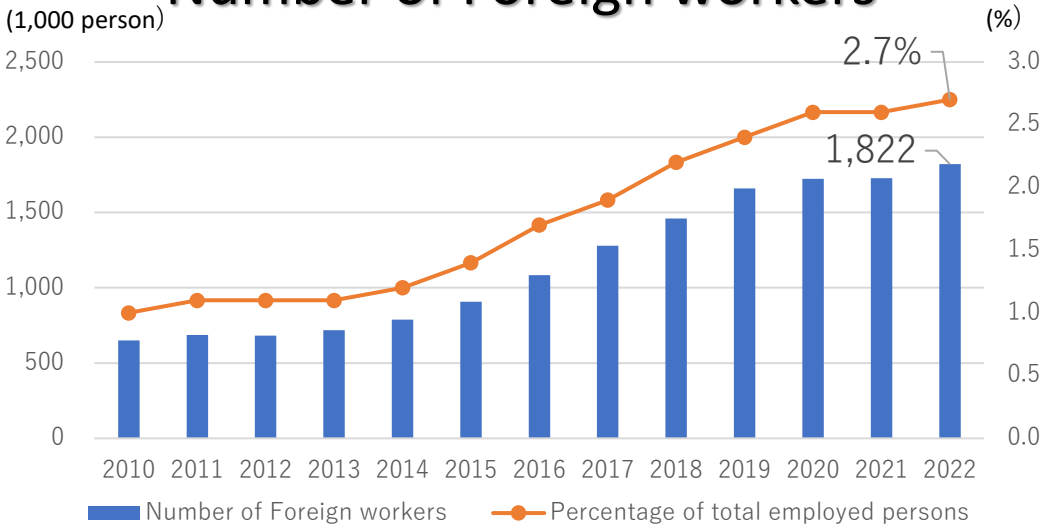
Ministry of Health, Labor and Welfare

Target real GDP



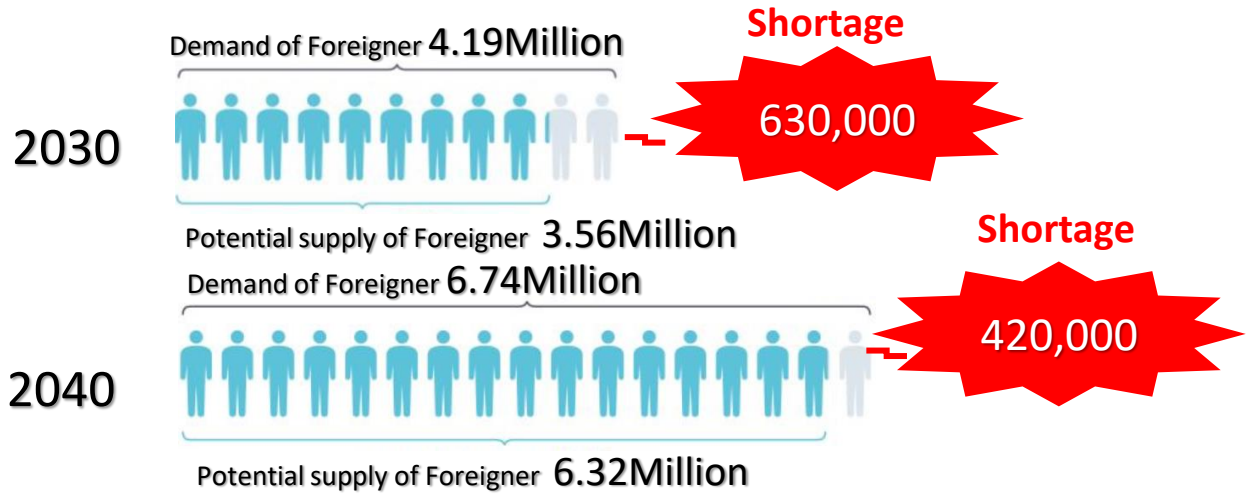
https://www.jica.go.jp/Resource/jica-ri/ja/publication/booksandreports/uc7fig00000032s9-att/kyosei_20220331.pdf

Number of Foreign workers



Ministry of Health, Labor and Welfare

Coexistence with Foreign workers



https://www.jica.go.jp/Resource/topics/2022/20220711_01.html

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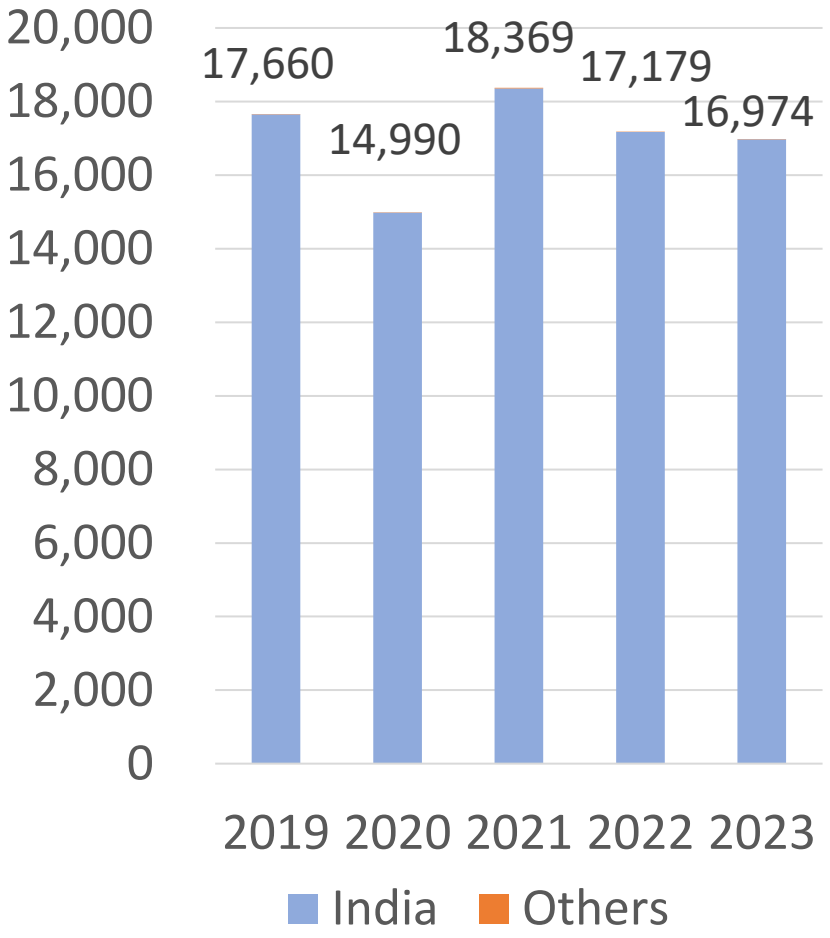
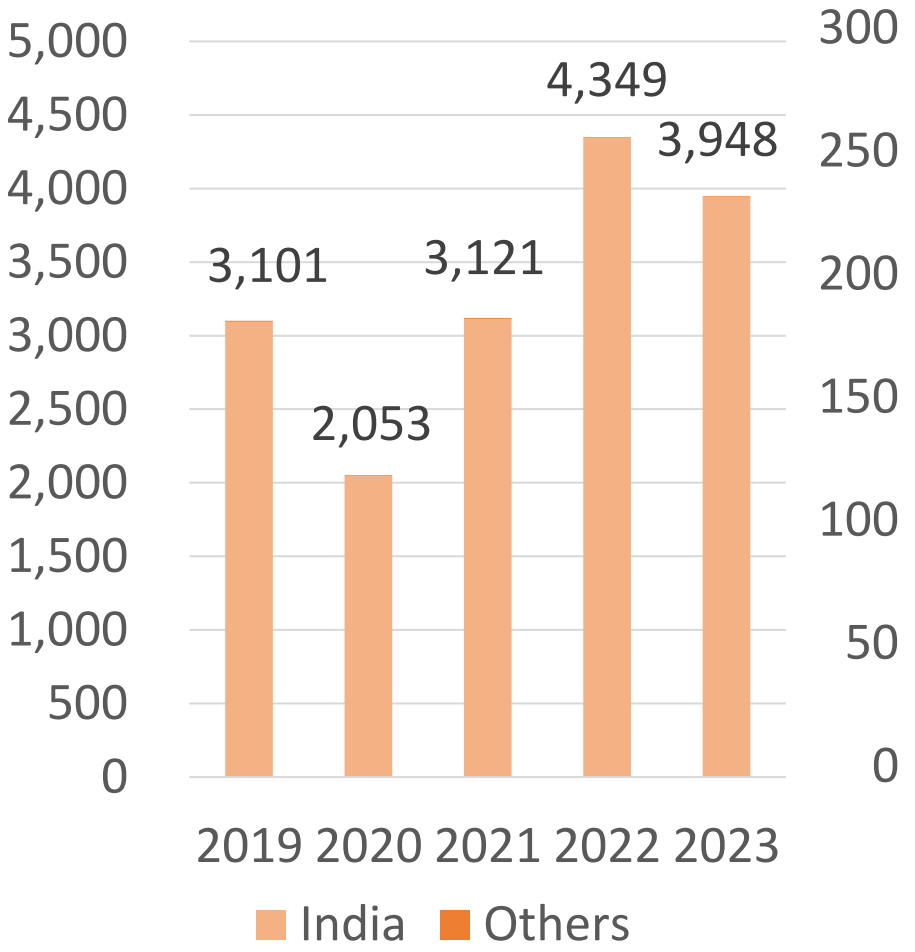
CASTOR OIL IMPORT TO JAPAN

Sales Q'ty(MT)



Sales Amount(Mil.JPY)

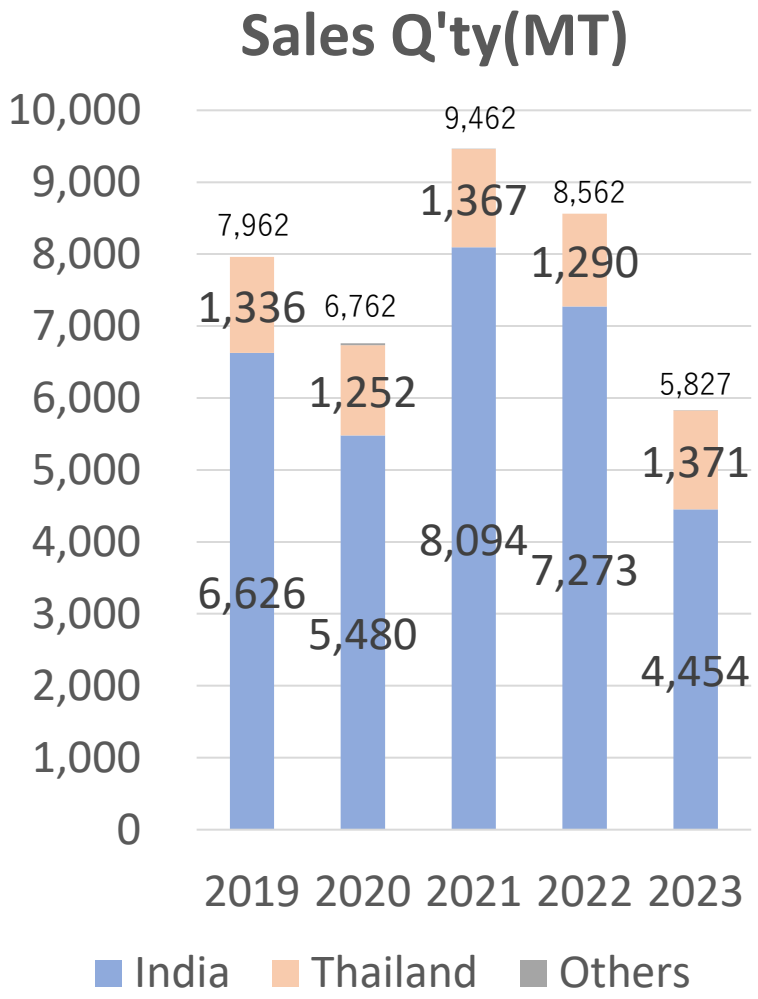


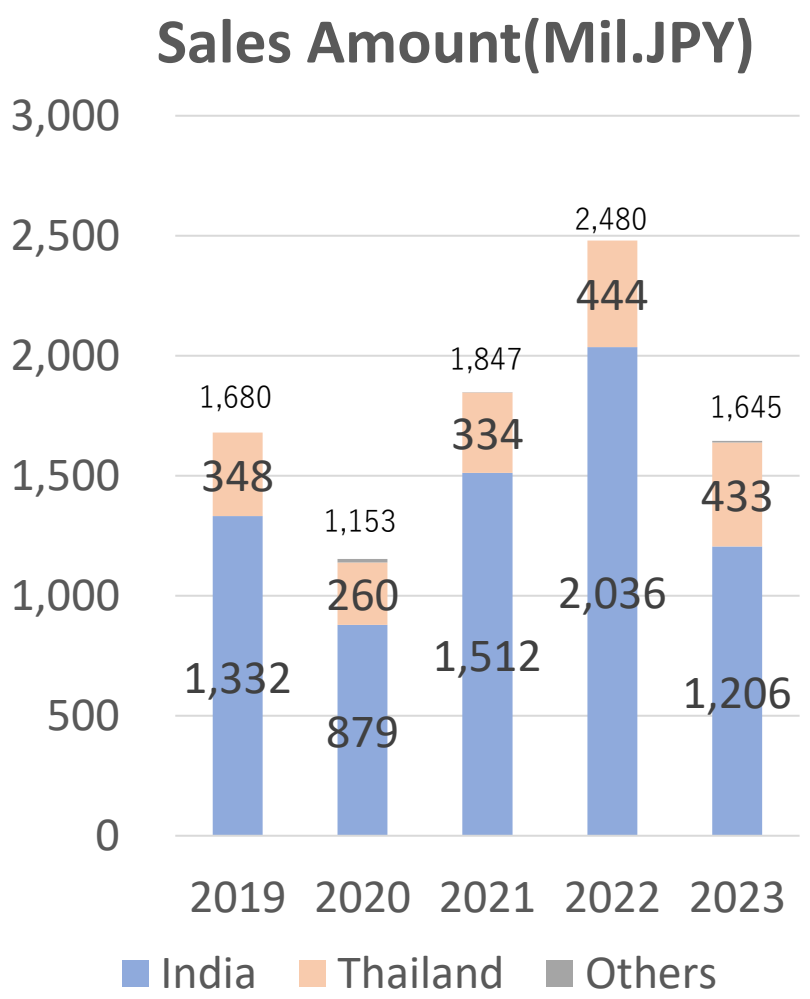
Unit price(JPY/kg)

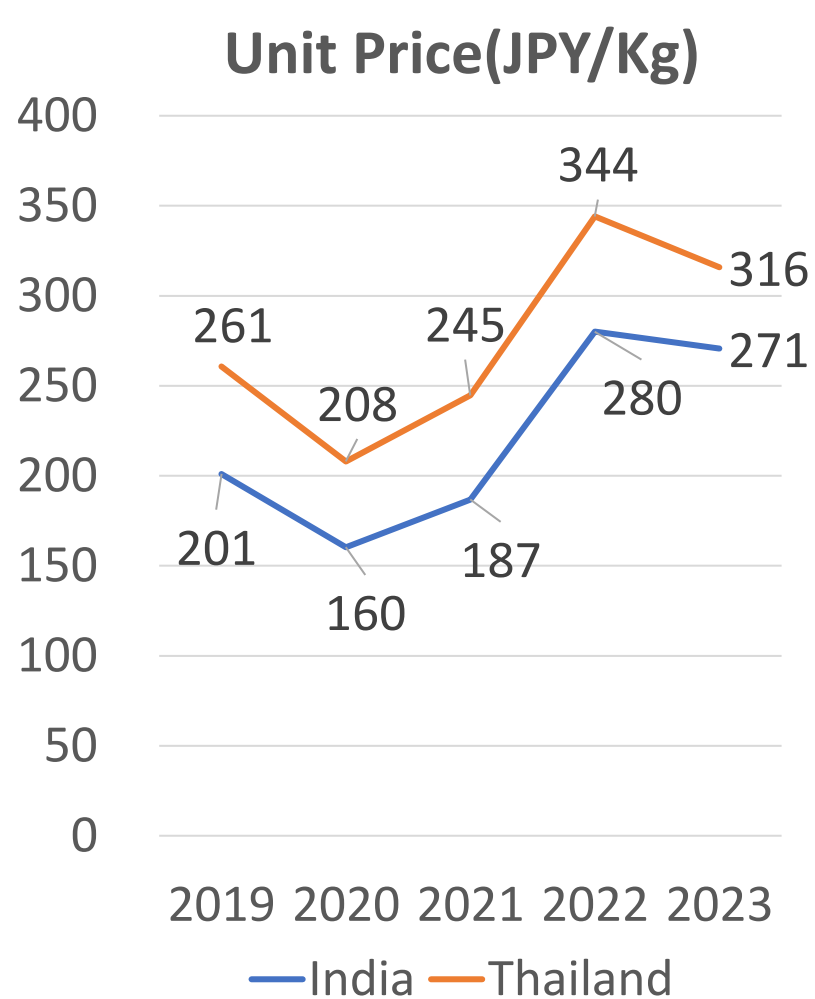
Trade statistics of Japan

Kusumoto Chemicals, Ltd.

CASTOR OIL DERIVATIVES IMPORT TO JAPAN (HCO)





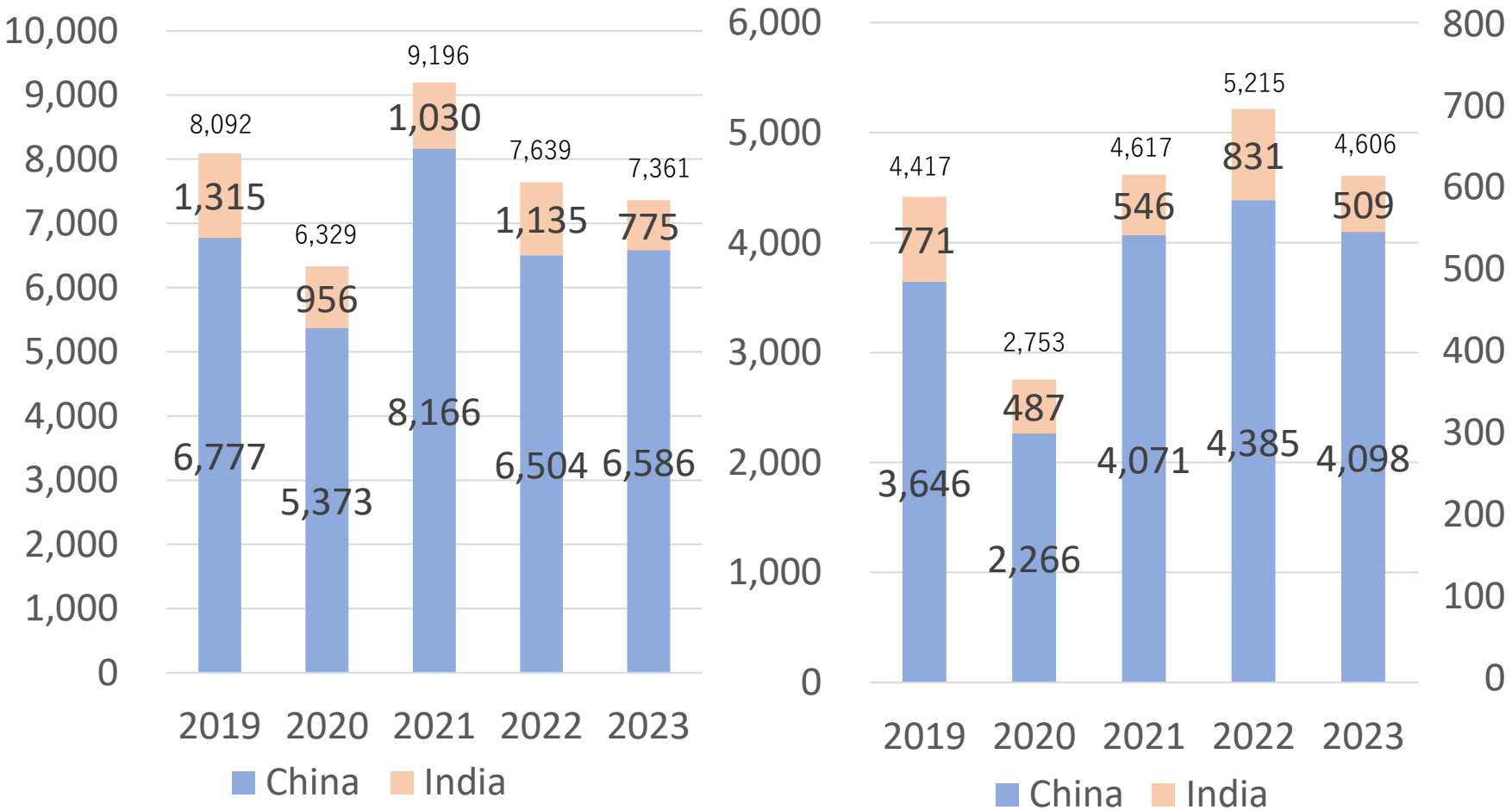


Trade statistics of Japan

Kusumoto Chemicals, Ltd.

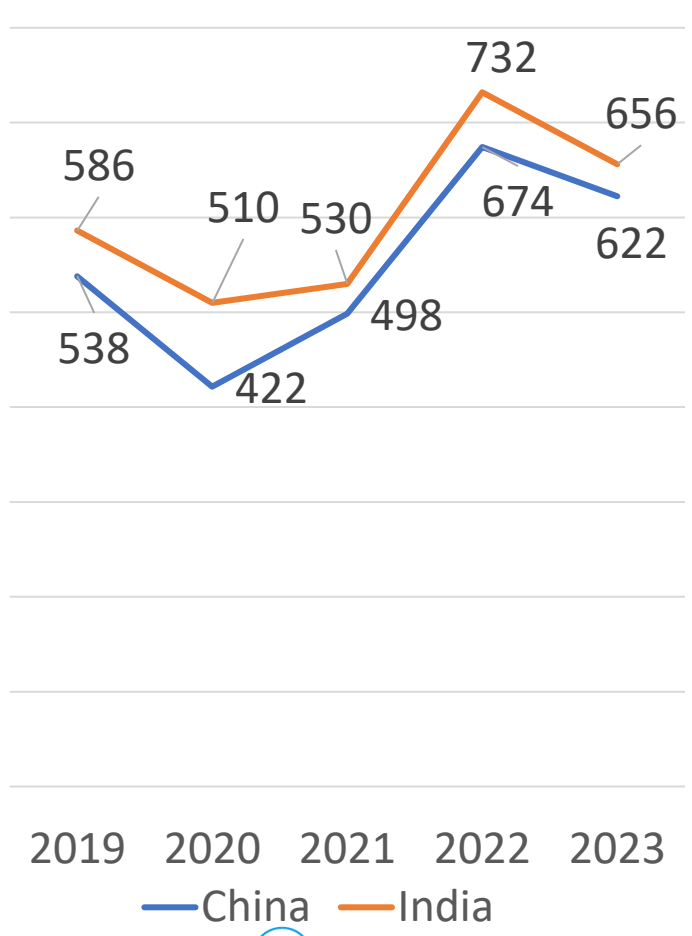
CASTOR OIL DERIVATIVES IMPORT TO JAPAN (SEBACIC ACID)

Sales Q'ty(MT)



Sales Amount(Mil. JPY)

Unit Price(JPY/KG)

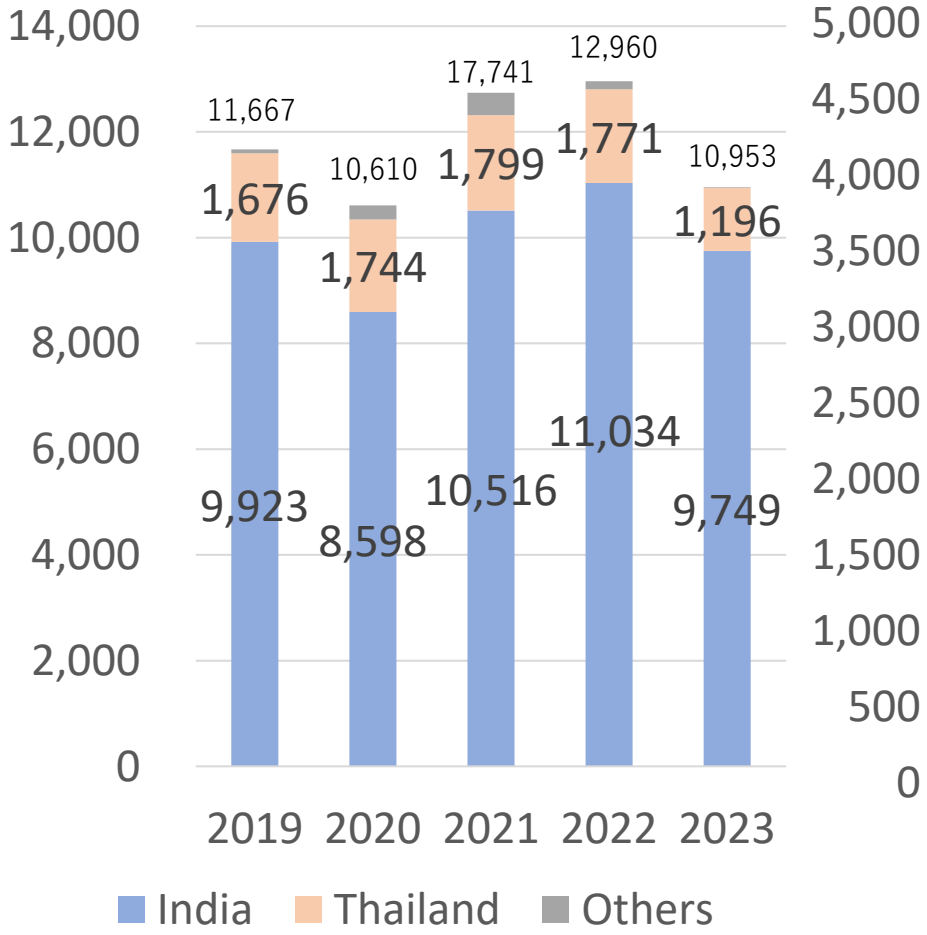


Trade statistics of Japan

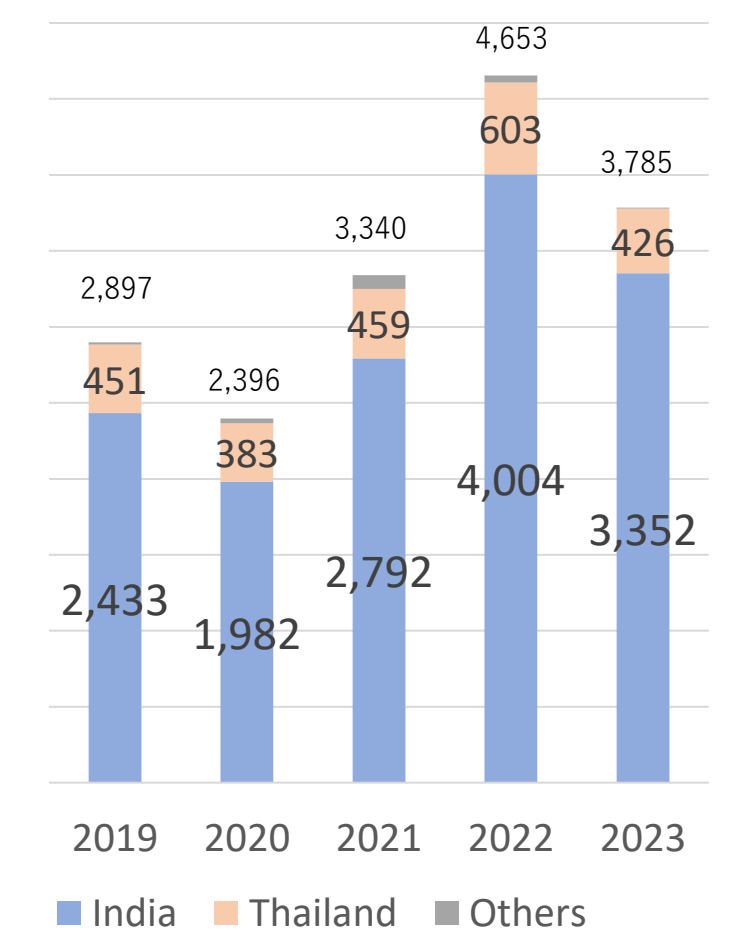
Kusumoto Chemicals, Ltd.

CASTOR OIL DERIVATIVES IMPORT TO JAPAN (12HSA, RICINOLEIC ACID, OTHERS)

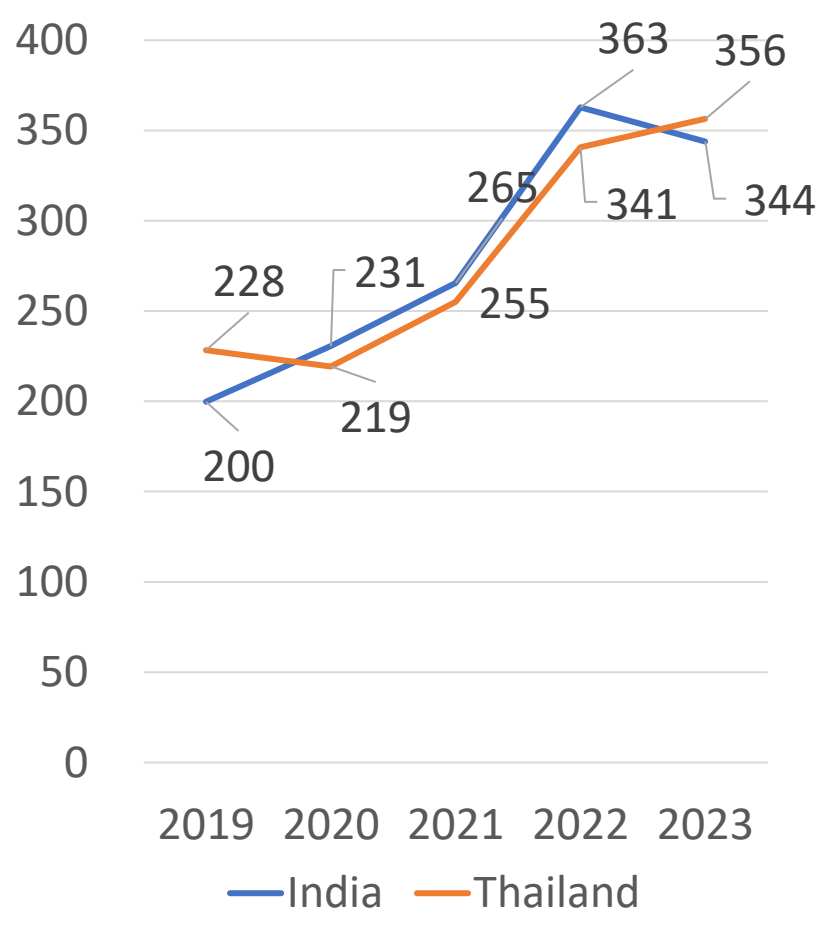
Sales Q'ty(MT)



Sales Amount(Mil.JPY)



Unit Price(JPY/Kg)



Trade statistics of Japan

Kusumoto Chemicals, Ltd.

MITSUI CHEMICALS/BIO-POLYOL FOR URETHANE

Compared to general polyurethane foam, 27% of CO^2 Reduction have been achieved.

https://jp.mitsuichemicals.com/sites/default/files/media/document/2019/190723_02.pdf

https://jp.mitsuichemicals.com/jp/release/2019/2019_0723.htm

MIZUNO/SHOES PLATE

The "MIZUNO WAVE" plate is made of nylon plates derived from plants (castor beans). Mizuno also consider reducing environmental impact in our manufacturing processes.

https://corp.mizuno.com/jp/news-release/2023/20230301

CASIO/WATCH BEZEL & BAND

The urethane bezel and band are made of biomass plastic.

https://www.casio.com/jp/watches/gshock/product.GBD-H2000-1A9/

DAITO/ BOTANICAL TOOTHBRUSH

https://prtimes.jp/main/html/rd/p/000000024.000037376.html

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UNITIKA/POLYAMIDE “CASTLON” & “XECOT”

CASTLON

"Castlon" is a 100% biomass-friendly PA11 fiber made from castor oil and has features such as light weight and abrasion resistance. Therefore, it can be used for clothing materials such as sportswear and outdoor clothing.

XecoT

“XecoT" is Polyamide resins which have the highest level of heat resistance and can be used in automobile engine compartments,

https://www.unitika.co.jp/sustainability/environment/material/

CLASTER THECHNOLOGY/BIOPLASTIC “PASCOM”

PasCom

PasCom is a functional resin based on biomass polyamide with all fillers made of biomass or recycled filler.

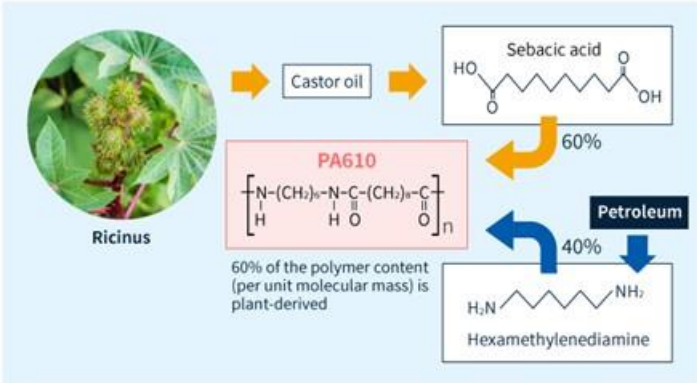
https://premium.ipros.jp/cluster-tech/catalog/detail/682218/

https://www.nikkei.com/article/DGXZQOUF098D00Z00C22A5000000/

ASAHI KASEI/POLYAMIDE610 LEONA BG

LEONA BG

Polyamide (PA) 610 resin Leona ™ BG series is a biomass plastic in which 60% of the polymer is derived from Castor oil



https://www.asahi-kasei-plastics.com/en/sustainability/01-biomass/

ACHILLES/POLY URETANEFORM

AIRLON ECO

"AIRLON ECO ®" replaces 1/2 of the polyol, which is the main raw material, with biomass (castor oil), but has the same quality and physical properties as conventional flexible polyurethane foam.

https://www.achilles.jp/product/manufacturing-facility/airlon/ecological/

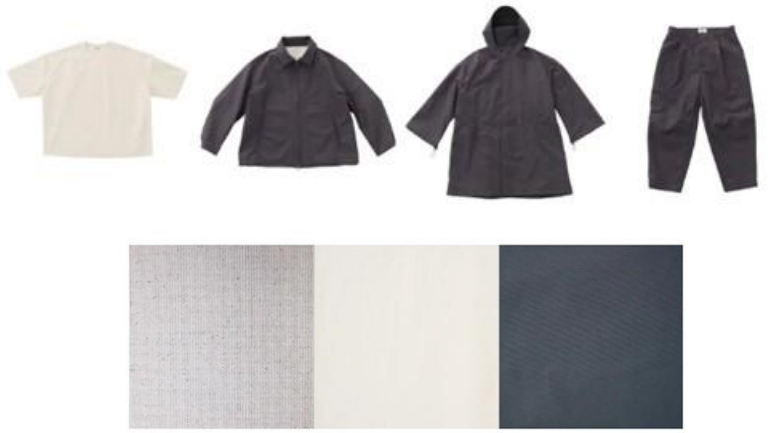
Kusumoto Chemicals, Ltd.

SEIREN BARREL GREEN/CLOTHING MATERIAL

BARREL GREEN is unique moisture-permeable waterproof product based on the use of naturally-derived coating material allowing reduction in CO^2 emissions

https://www.seiren.com/products/clothing/sportsinner/barrel-green/

ELEPHANT STREET&CO/RECYCLED NYLON FABRIC



https://prtimes.jp/main/html/rd/p/000000001.000132796.html

MEGANETOP/ECOLOGICAL GLASS FLAME

https://www.meganetop.co.jp/wp/wp-content/uploads/2023/09/efd3125f35154e000931b56a4d19b249.pdf

LIKES/CLOUD9 FOOTBED

The CLOUD9 Footbed is thermoformed with proprietary EVA material using the original manufacturing method to give it a soft high cushioning and resilience.
The EVA material of the Cloud9 footbed is made of castor oil, which absorb a lot of CO^2 and reduce carbon dioxide in the atmosphere as it grows.

https://prtimes.jp/main/html/rd/p/000000020.000096034.html

Kusumoto Chemicals, Ltd.

ALLBIRDS/SUPERLIGHT FOAM

The SuperLight series weighs about the same as a rigid baseball or a smartphone, making it the lightest shoe. Not only that, but it also has the lowest carbon footprint. This is due to the "SuperLight Foam", which is completed by injecting nitrogen into a bio-based material made from Indian castor beans.

https://prtimes.jp/main/html/rd/p/000000052.000052205.html

SWATCH/BIOCERAMIC

All models are made of Bioceramic. This unique material is patented by Swatch and is made from a bio-based material that is two-thirds ceramic and one-third castor oil

https://www.swatch.com/ja-jp/bioceramic.html

BOLLE/COMFORTABLE GLASS FLAME

Classee is Bolle Safety's first sustainable RX model. The frame is made of an eco-friendly bio-material made from castor oil to improve comfort. It is lightweight and comfortable to wear for long periods of time.

https://www.bolle-safety.com/jp/see-all/klassee-KLASSEE_PRESCRIPTIONRX.html

I-GOODS/SUSTAINABLE ORGANIC TOOTHBRUSH

The bristles are made of castor oil extracted from plant seeds, making it ideal for those who are interested in environmental issues and vegan mindsets.

https://sus.i-goods.co.jp/amenity/sus-organic-toothbrush-plant-based

Kusumoto Chemicals, Ltd.

JAPAN HP/SUSTAINABLE MATERIALS FOR PRINTER

In collaboration with Arkema, HP is developing biomass materials made from castor oil, a renewable resource, and using biomethane to further reduce our carbon footprint.

https://prtimes.jp/main/html/rd/p/000000041.000068112.html

KAI-GROUP/POLYURETHANE PUFF

Chewy urethane puff using castor oil derivatives as the main ingredient to reduce CO^2 emissions from products.
It has a unique chewy texture and a pleasant touch. The fine surface of the puff allows you to finish the foundation evenly and beautifully.

https://prtimes.jp/main/html/rd/p/000000437.000025105.html

SKAGEN/BIO-BASED NYLON FOR CRYSTALS

FOSSIL JAPAN announced that SAMSØ collection of Skagen features crystals made partly from bio-based nylon using 45% of castor oil derivatives. Unlike common nylons, which are made of crude oil, bio-based nylon is as durable and practical as general nylon and is partly derived from natural materials.

https://prtimes.jp/main/html/rd/p/000000244.000008529.html

DAIKYONISHIKAWA/DEVELOPING BIOMASS PP

The front bumper and the over fender were injection molded using polypropylene (biomass PP) derived from castor oil extracted from castor seeds as a material. Both components can reduce carbon dioxide (CO^2) emissions by 19% for the former and 29% for the latter, while maintaining their strength.

https://xtech.nikkei.com/atcl/nxt/column/18/02461/00009/

Kusumoto Chemicals, Ltd.

Monthly Specialized Magazine

“Fats & Oils”

- ✓ First published in 1948.
- ✓ It covers a wide range of fats and oils, oils, oil processing, soap detergents, toiletries, and surfactants.
- ✓ It provides information and commentary on economic issues such as raw material conditions, supply-demand relationships, and industry trends, as well as current technical problems in each field.
- ✓ At the end of the book, statistical and market information of all fats and oils is covered.

◆ Publisher: Saiwai Shobo
◆ Homepage Address https://www.saiwaishobo.co.jp/monthly-yushi/

Kusumoto Chemicals, Ltd.

Company Introduction

Kusumoto Chemicals, Ltd

Kusumoto Chemicals, Ltd.

Sales Review

<Sales Result >

Annual Sales; USD 235,000,000 in 2022
Employees; >300
Founded ; July 1st,1926

President Keita Kusumoto
楠本慶太

Additive Unit

Manufacture and Sale of "DISPARLON" additives for Paints and Coatings, Printing inks, Sealants, Electronics etc.

Importing Business

Sales of imported synthetic resins, multifunctional additives for lubricants, inorganic matter and other chemical raw materials.

Chemical Unit

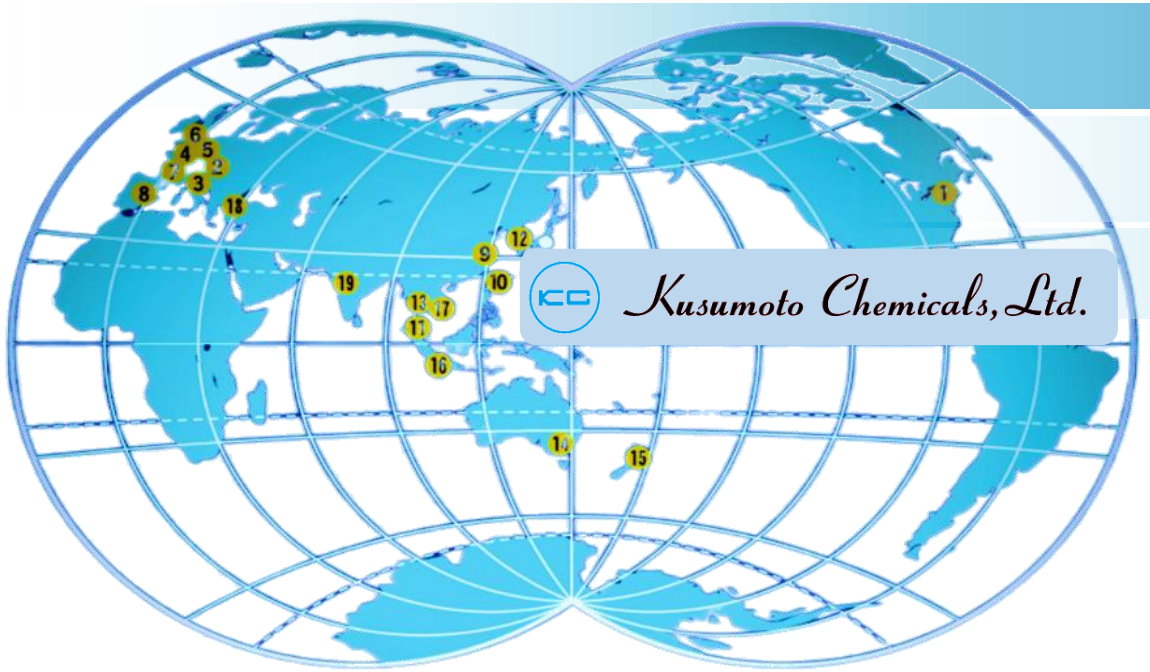
Sale of coating materials, organic and inorganic chemicals, metal mold, formed article, packing materials and other chemical raw materials.

ETAC unit

Development, Manufacture, Sale and Support of Reliability Test & Inspection Systems including Environmental Test Chambers, Automatic Measuring Systems

Company's own building

Company Introduction



20 Distributors in the World

3 Factories in Japan

3 Production sites in China, India, Thailand

1926 - 1959s

1926 Founded by the late Jiro Kusumoto as distribution company
1956 Started manufacturing paint additives (DISPARLON)

1960 - 1999s

1962 Set up Koshigaya Plant and started its operation
1972 Set up Soka Laboratory and started its operation
1979 Set up Soka Plant and started its operation
1996 Set up Kashima plant and started its operation

2000 - 2009s

2003 Established Kusumoto Chemicals (Kunshan) Co., Ltd.
Set up Kunshan Plant and started its operation
2006 Established Kusumoto Chemicals (Shanghai) Co., Ltd.
2007 Established Kusumoto Chemicals (India) Pvt. Ltd.

2010 - 2023s

2014 Completed New Kusumoto Bldg.
2016 Established Kusumoto Chemicals (Thailand) Co., Ltd.,
2017 Set up Thai Plant and started its operation
Set up Saitama Warehouse and started its operation

Sales, R&D, Production network in Japan

Sales office
Plant
R&D

Sapporo office

Tokyo Headquarter

Osaka Branch

Fukuoka Branch

Nagoya Branch

Kashima Plant

Koshigaya Plant

Soka Plant & Second Plant

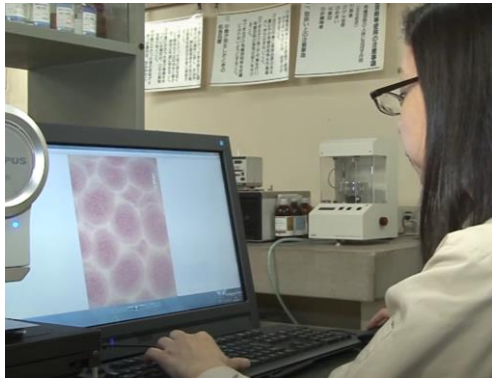
Soka Laboratory

R&D, Production in Japan

Laboratory

We make a contribution to technological innovations along with customers by offering our unique products and solutions.


Soka



Plants


Kashima Plant


Soka

Soka Second


Koshigaya

ETAC unit - Approved Independent Test Center

IECQ-L JQAJP 20.0001
Please contact for authorization details

Soka Test Center

Soka Test Center is the hub of our "Reliability Clinic" for failure analysis, etc., and a control center of contracted services.

Yamagata Test Laboratory

The Yamagata Test laboratory is equipped with environmental test chambers and automatic measurement systems for life tests

Mizunami Test Laboratory

The Mizunami Test Laboratory is capable of undertaking reliability testing/evaluation for the customers in the automotive electronics and digital electronics.

GLOBAL CASTOR CONFERENCE - 2024

You can count on our new “Solution”

Yosuke Kusumoto
Kusumoto Chemicals, Ltd