MERCURY IN RETROGRADE

The Dark World of Toxic Skin Lightening Products

A variety of SLPs which tested positive for mercury in previous ZMWG testing.

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ABOUT EIA

For over 30 years as a non-profit organization, EIA has pioneered the use of undercover investigations to expose environmental crime around the world. Intelligence reports, documentary evidence, campaigning expertise, and an international advocacy network enable EIA to achieve far reaching environmental justice by amplifying local voices, spurring changes in market demand, government policy, and enforcement related to global trade in forest products, wildlife, and other environmental products.

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Unless otherwise noted, the source for the report are EIA's internal investigative reports, photos, audio and video evidence collected during the investigation.

A cosmetics executive displays the packaging for their top selling mercury-added product.

EXECUTIVE SUMMARY

The production, trade, and sales of mercury-added skin lightening products (SLPs) have continued despite widespread sampling evidence, reporting, awareness campaigns, and legal prohibitions, including a global treaty ban.[1]

SLPs using mercury are a serious public health threat that has reached epidemic levels in many nations. Under the Minamata Convention on Mercury, the production and trade of SLPs with concentrations of 1 part per million (ppm) or greater is prohibited, and many countries have corresponding laws and regulations banning cosmetics with >1 ppm of mercury. However, notwithstanding Convention obligations and national laws or regulations, sales of high mercury SLPs continue unabated.

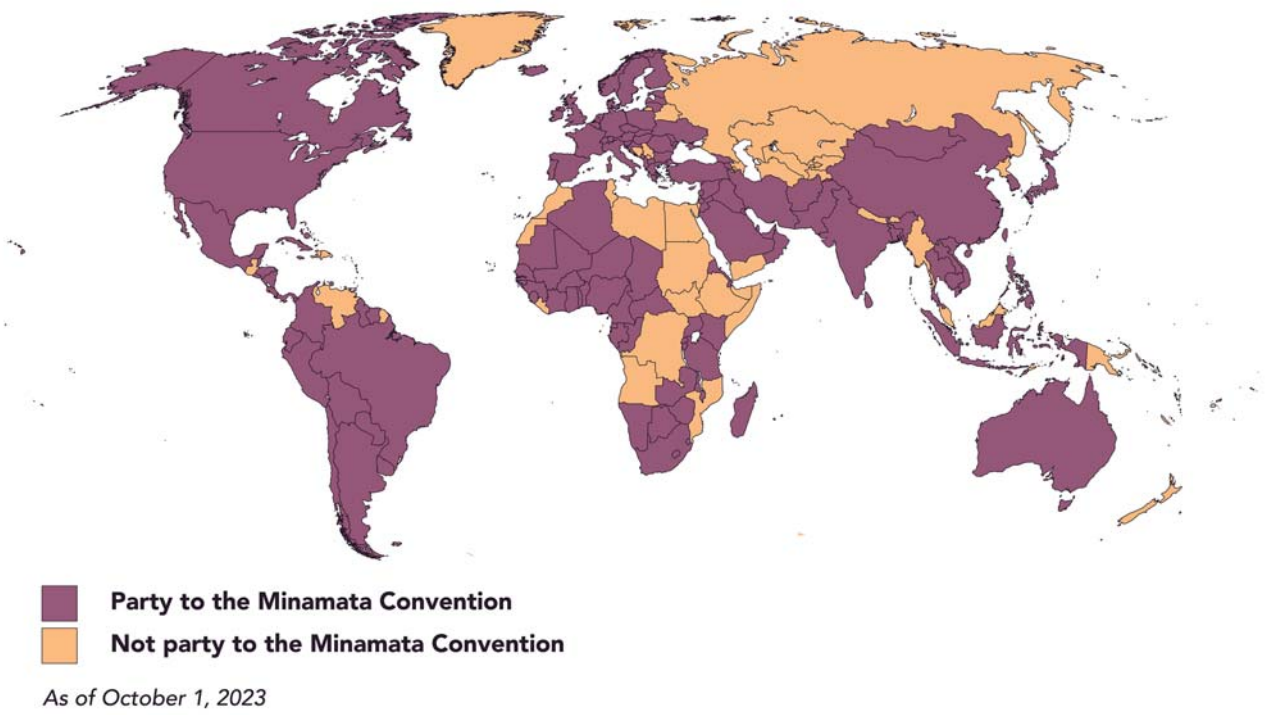
For the first time, an Environmental Investigation Agency (EIA) investigation reveals key companies producing mercury-added SLPs and the mercury compound supply sources serving these producers. EIA carried out undercover investigations in three different regions (Asia, North America, and Europe) and was able to confirm the continued trade, illegal production, sale, and use of mercury compounds for SLPs. EIA obtained compelling evidence from seven companies in three countries that they intentionally add mercury into SLPs. Detailed discussions with company executives make clear that these are not isolated incidents but instead represent common practices across the industry.

This investigation revealed it is standard practice for SLP producers across the globe to manufacture products consisting of 3-4% of a mercury compound, most often ammoniated mercury (CAS number 10124-48-8).[2] The production of these products is enabled by the unregulated trade of most mercury compounds. Those who trade in mercury compounds can operate with impunity across jurisdictions, even while openly and plainly stating that the compounds are intended to be used in SLPs. The investigation identified two companies based in India, one in Spain, and one in the United States, all currently supplying mercury compounds, specifically ammoniated mercury, for use in SLPs. Conversations with company executives and trade data suggest the scale of mercury compound production is not limited to the compound trading companies mentioned in this report.

The lack of adequate restrictions and robust compliance has allowed the continued mass production of mercury-laden SLPs by a wide range of enterprises with varying factory sizes and sophistication. To combat this production and trade, countries must not allow the manufacture, import, or export of mercury-added SLPs. These findings also show that the demand for these SLPs is not unique to the "Global South" and is a health, regulatory, and enforcement challenge globally.

EIA findings underline the urgent need for the Minamata Convention to prioritize this product category as a matter of Convention implementation. Activities and resources are needed to undertake capacity building to identify and resolve gaps in legal authorities, address the key mercury compound supply chains and production facilities, publish advisories for consumers, ban advertising and display of SLPs, and strengthen the oversight of online and on-the-ground sales.

Minamata Parties Map



INTRODUCTION

Skin lightening products (SLPs), rooted in racism and colorism, have been well studied and many of them confirmed to have dangerous effects on human health. Mercury lightens the skin by suppressing the production of melanin and can also remove age spots, freckles, blemishes, and wrinkles. Mercury has long been used as a skin lightening active agent in creams and soaps. Scientific papers have established that the most commonly used active ingredient in SLPs is inorganic mercury because it can be readily absorbed into the creams.[3] Adolescents sometimes use SLPs, as mercury is an effective antibacterial for the treatment of acne. Populations from Asia, Africa, Latin America, and the diaspora are often the target of marketing campaigns and advertisements encouraging the use of SLPs.[4] While there may be some regional variations, a recent market study suggested that women account for nearly 80% of the global market for SLPs.[5] Moreover, "those residing in urban settings [are] 10 times more likely to engage in the practice compared with rural dwellers."[6] Studies from across Africa, Europe, North America, and Asia, show the prevalence of the use of SLPs ranges from 27% to 77% among community samples.[7]

Direct application of mercury-added cosmetics increases the human population's exposure to mercury, putting consumers at great risk of serious health impacts, and underscores enforcement challenges facing the global treaty on mercury. Those near a person using mercury-added SLPs risk breathing mercury vapors or might become exposed by using linens contaminated with mercury.[8] While mercury can be an effective short-term inhibitor of melanin production providing the "desired" fairer skin tone, long-term exposure can lead to splotchy discoloration, skin rashes, skin discoloration and scarring, and reduction in the skin's resistance to bacterial and fungal infections.[9] Other severe human health effects range from kidney damage to neurological effects, including anxiety, depression, psychosis, and peripheral neuropathy.[10,11] **There are health risks not only to the individual users, but also to others such as children who come into physical contact with the creams, and to the surrounding environment**.[12] In spite of causing severe health problems, mercury-added SLPs are a profitable and fast-growing subsector of the cosmetic industry. The global market for SLPs was estimated at US$8 billion in 2020, and projected to increase to US$11.8 billion in 2026.[13] In India, for example, which is a bustling market for such creams, SLPs represent 50% of the skincare market.

Given the health and environmental impacts of mercury-laden SLPs, there have been several campaigns aimed at consumer awareness around the dangers of these

products and the racist beauty standards promoted. Several media reports globally cover the widespread use and significant health impacts of skin lightening users worldwide, often highlighting the impact of marketing, colonialism, and the influence of European beauty ideals.[14,15] Other reports from Fiji have carried warnings about specific high-mercury-content creams from the New Zealand Medicines and Medical Devices Safety Authority to raise consumer awareness.[16] The World Health Organization (WHO) has stated that media, advertising, and marketing all reinforce the bias that lighter skin tone is more desirable than darker skin tone.[17] These harmful and fallacious messages contribute to the use of SLPs worldwide, although the use of these products is particularly widespread in many African, Asian, and Caribbean countries.[18] A study from the International Journal of Women's Dermatology found that about 45% of women in the United States who use skin lightening products were unaware of their SLP ingredients.[19] This underscores the need for enhancing consumer education and awareness, complying with international obligations, and fostering research and development of safe and effective alternatives.[20]

While mercury-added products are illegal in many jurisdictions, the legal sale and advertisement of SLPs without mercury has the adverse effect of increasing public demand for the typically cheaper and more toxic SLPs, fueling the illegal market for mercury-added substitutes. It is easy to obtain or encounter mercury-added SLPs in markets throughout Asia, Africa, Europe, the Middle East, North America, and the Caribbean. Although the limit of 1 ppm mercury is regulated in most of these regions, the lack of effective monitoring and enforcement has allowed the continued availability of these unsafe products in marketplaces and online. Note also that this 1 ppm threshold is not a safety standard; rather, it is derived from the presumption that mercury levels greater than 1 ppm have been intentionally added rather than trace contaminants.[21]

This report examines the tactics and systems of prohibited or illegal mercury SLP producers, sellers, and traders, and some of the sources of the mercury that contaminates them, with a specific focus on skin-lightening creams applied topically. As the Minamata Convention looks to strengthen its impact at COP-5, investigations into the continued trade and production of SLPs have identified holes in the implementation and enforcement mechanisms of the Convention that must be urgently addressed to halt the proliferation of SLPs and their negative health impacts.

Existing Data and Consolidation

The available data regarding common brands, markets, and other findings associated with mercury-added substances has been fragmented, and divided among NGO stakeholders, government detention lists,[22] and independent sampling. EIA worked with the Zero Mercury Working Group (ZMWG) on a database that forms a framework to collate relevant samplings and occurrences of mercury-added SLPs.[23]

Current trade analyses also do not go into detail regarding the trade in mercury intended for cosmetic use. Typically, cosmetics are included in the category with "other products" that contain mercury. Consequently, the amount of mercury used globally and regionally for this particular use is largely unknown and difficult to trace. However, with the growing dominance of online e-commerce platforms, tracing the supply of SLPs has turned digital. A subsequent 2023 report found nineteen out of twenty-one products purchased from Amazon.com had mercury concentrations over 1 ppm, the legal limit.[24]

To EIA's knowledge, no prior work has followed the illegal trade in mercury through the cosmetic supply chain, either from the mercury source to the end-use, or from the cosmetic manufacturing to the mercury supply.

EIA Findings on Data Gaps and Improvements

EIA review of existing data showed:

1. In most circumstances, data is not available on the whereabouts and names of third-party sellers of SLPs, either on e-platforms or physical marketplaces. For e-commerce (and when possible physical interaction) data should be collected regarding the name of the seller and the seller's location. When seller information is collected, analysis can reveal whether one seller goes by many names or a single name across platforms, and a greater understanding of third-party sellers' tactics and place in the supply chain can be established.

2. Previous data and sampling have only assessed individual samples of SLPs, not bulk products or distributors. Further data concerning SLP distributors can reveal more information regarding the market penetration of mercury-added creams for markets of interest, and potentially more accurately identify supply sources and production facilities of mercury-added creams.

3. A majority of sampling and monitoring in skin lightening creams excludes Latin America (not including the Caribbean). It is unclear if the market size for skin lightening creams in this region is significant enough for consideration, but mercury poisoning in Latinos in North America has been reported and the sale of skin lightening creams in South America does occur.[25] Data on the availability of mercury-added SLPs in Latin America may suggest further investigation into the trade in mercury and mercury-added creams in this geography. *This region was not included as a focus of this report.*

EVIDENCE FROM THE FIELD

EIA conducted extensive trade data analysis to identify broad international trends and countries of interest, and to focus on specific actors and country trade. The main dataset used for this analysis was Panjiva. Search terms used a combination of HS codes and keywords, as well as company names and/or locations. This data formed the initial contact list of companies producing mercury compounds or SLPs with intentionally added mercury compounds. Additional contacts were the result of online investigations and previous reports by the ZMWG, which identified SLPs that repeatedly were found to contain high quantities of mercury (1.5 ppm to 8,500 ppm).[26]

EIA also conducted dozens of undercover interviews with company representatives and owners involved in the production or trade of mercury compounds as well as producers of mercury-added SLPs. While some SLP manufacturers denied using mercury compounds or stated that they were prohibited in certain countries, companies in Thailand, Pakistan, and Jamaica all confirmed the intentional addition of mercury compounds into their SLPs. Conversations with representatives for companies based in India, Spain, and the United States revealed the sale of mercury compounds to SLP producers for the specific purpose of use in cosmetics as a skin lightening agent.

Mercury Compound Legal Landscape

The Minamata Convention regulates mercury on an international level and makes distinctions between the restrictions on elemental mercury and select mercury compounds.[27] Elemental mercury is strictly regulated. For example, liquid mercury is subject to trade consent requirements pursuant to Article 3 of the Minamata Convention. This means exporters must obtain written consent from an importing country and can export only for the purpose of an allowed use under the Convention or environmentally sound interim storage.

However, mercury compounds are not strictly regulated. The definition of mercury compounds in Article 3 of the Minamata Convention is limited to six specific compounds: mercury (I) chloride (known also as calomel), mercury (II) oxide, mercury (II) sulphate, mercury (II) nitrate, cinnabar, and mercury sulphide.[28] And even for those compounds, there are no applicable supply and trade control measures. The intentional addition of mercury compounds into cosmetics over 1 ppm of mercury is a violation of the Minamata Convention under Article 4. However, national legislation implementing this requirement has not been adopted in all countries. Of the SLP production countries covered in this report (Jamaica, Pakistan, and Thailand), Thailand and Pakistan have enacted national laws in compliance with the 1 ppm restriction, although enforcement remain an issue. Additionally, paragraph 13 of Article 3 requires the Conference of the Parties to evaluate whether the trade in specific mercury compounds compromises the objective of the Convention and consider whether specific mercury compounds should also be restricted, but this has not occurred to date. **EIA's investigation reveals that the most common mercury compound added to SLPs is currently ammoniated mercury, but this compound is not among the list of mercury compounds included in the definition under Article 3**.

As a result, from an international legal perspective, many mercury compounds are largely unregulated despite their pervasive use and deleterious health impacts.

Several countries or regions have more stringent controls over the export of mercury compounds. In the United States, effective January 1, 2020, the "statute prohibits the export of: Mercury (I) chloride or calomel; mercury (II) oxide; mercury (II) sulfate; mercury (II) nitrate; and cinnabar or mercury sulphide," but again does not include ammoniated mercury.[29] Similarly in the EU, since 2018 mercury compounds prohibited for export are; mercury (I) chloride (Hg2Cl2, CAS RN 10112-91-1), mercury (II) oxide (HgO, CAS RN 21908-53-2), cinnabar ore, mercury sulfide (HgS, CAS RN 1344-48-5). Since 2020, the EU ban has been extended to include; mercury (II) sulphate (HgSO4, CAS RN 7783-35-9), and mercury (II) nitrate (Hg(NO3)2, CAS RN 10045-94-0).[30]

While the United States has not updated the list of restricted compounds, it has the regulatory authority to do so through the EPA. In the EU, the mercury regulation could be revised accordingly. The practice of intentionally adding ammoniated mercury uncovered in this investigation indicates that both regulatory authorities need to expand the banned compounds list, at the minimum.

Findings Summary

The manufacture and trade of mercury and mercury compounds for the production of SLPs is not restricted to any one region, rather it is an international problem as this investigation has confirmed via trade data and first-hand accounts from company owners. Prior reports note online vendors are not removing all products previously identified as containing high concentrations of mercury.[31] EIA investigators identified the same trend in physical beauty/drug stores in Jamaica and Thailand as well. Additionally, this report confirmed the following:

- **Companies intentionally add mercury compounds at concentrations greater than 1 ppm, in violation of the Minamata Convention Article 4 obligations on mercury-added products.**

Skin lightening samples given to EIA investigators in Thailand, reported to have mercury added.

- **Ammoniated mercury is the primary mercury compound added to these creams. This particular compound is not subject to Minamata Convention, EU, or U.S. trade restrictions, although it is still a violation of the Convention to add mercury compounds into cosmetics above 1 ppm.**

- **The sources of mercury compounds that are being sold for use in SLPs include companies based in Spain, India, Japan, and the United States.**

This investigation confirmed several tactics described in prior reports regarding the packaging and sales of mercury-added SLPs, including omitting mercury from ingredients lists, and labeling products "for export only".[32] While it remains unclear in some circumstances whether illegal, mercury-added products are counterfeit or mislabeled, this investigation revealed producers often intentionally add mercury compounds to their own products as well as for third-party distribution and branding.

Several companies investigated by EIA, including Poonia Brothers, makers of Faiza, and Biocos claimed in conversations with EIA investigators that their products complied with international and domestic restrictions, despite also admitting to investigators to intentionally adding mercury compounds.[33]

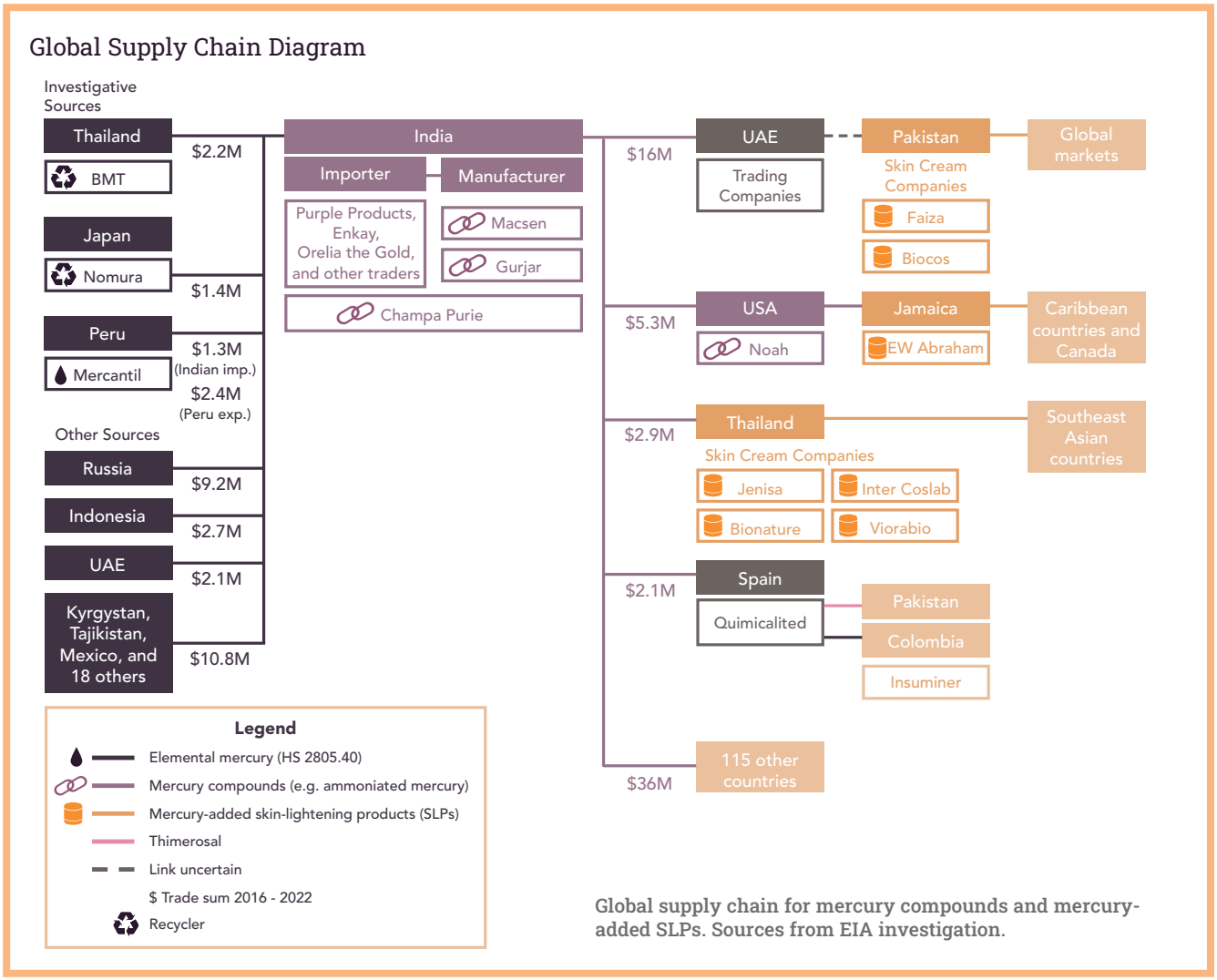
The sources of mercury compounds that are being sold for use in SLPs include companies based in Spain, India, Japan, and the United States. Trade data matches first-hand accounts confirming wide-scale sales and availability of mercury compounds for use in cosmetic products driven by consumer demand and affordability. While past investigations revealed third-party sellers are the main point of contact for consumers and are not trusted or vouched for by cosmetic brands, EIA's investigation found that some brands produce mercury-added SLPs both for themselves and third-party or private brands.

Further details of some specific companies are outlined in the following sections.[34]

While it remains unclear in some circumstances whether illegal, mercury-added products are counterfeit or mislabeled, this investigation revealed producers often intentionally add mercury compounds to their own products as well as for third-party distribution and branding.

Summary Table of Key EIA Investigation Findings (Non-exhaustive):

Company	Key Findings	Industry
Thailand		
BioNature	Company owner confirmed intentional addition of mercury compounds into their creams.	Cosmetics Producer
Inter Coslab Co.	High level representatives at the company confirmed intentional addition of mercury compounds into their creams.	Cosmetics Producer
Viorabio	Company owner confirmed intentional addition of mercury compounds into their creams.	Cosmetics Producer
Jenisa	Company owner confirmed intentional addition of mercury compounds into their creams.	Cosmetics Producer
Pakistan		
Poonia Brothers (Faiza)	A high-level representative at the company confirmed intentional addition of mercury compounds into their creams; however, claimed it is at or below "acceptable" standards.[35] The representative also confirmed they currently produce creams that contain mercury compounds for private brands.	Cosmetics Producer
Biocos	High-level representatives at the company confirmed intentional addition of mercury compounds into their creams at concentrations ranging from 2.5-4%, however claimed it is at or below legal standards.	Cosmetics Producer
India		
Macsen Labs	High-level representative confirmed selling ammoniated mercury for use in skin whitening creams and frequently ships the compound under another name, amido (hg) chloride or amido (hg ii) chloride.	Chemical and Pharmaceutical Ingredients Manufacturer
Champa Purie Chem Industries	High-level executive confirmed that Pakistani companies producing mercury-added SLPs were sourcing mercury compounds from India, but he denied that his company was their source.	Chemical and Pharmaceutical Ingredients Manufacturer
Gurjar Chemicals	High-level executive confirmed they produce and sell ammoniated mercury for use in skin whitening creams.	Mercury Products Manufacturer
Jamaica		
E.W Abrahams & Sons Ltd	Owner confirmed ammoniated mercury-added to their creams and that the ammoniated mercury is imported from the United States.	Cosmetics Producer
United States		
Noah Chemicals	Company representative confirmed they are currently exporting the mercury compounds for use in SLPs. Executives at other companies confirmed Noah Chemicals as a mercury compound supplier.	Chemical and Compound Supplier
Spain		
Quimicalited	Company owner confirmed they currently supply ammoniated mercury for use in the production of skin whitening products. Confirmation of export of elemental mercury in the past.	Chemical and Compound Supplier



Global supply chain for mercury compounds and mercury-added SLPs. Sources from EIA investigation.

Unless otherwise stated, EIA did not independently verify or validate the veracity of the claims made by each company's interviewed representatives.

Asia

Thailand:

Confirmed mercury SLP production

EIA reviewed published lists of SLP brands that have been found to contain >1 ppm mercury. ZMWG database compiles results from their past sampling and testing as well as data from official sources such as the EU Safety Gate – the European Rapid Alert System for dangerous products, the ASEAN Post-Marketing Alert System or national 'detention lists' published by governments, and others.[36] Two countries of manufacture that appeared frequently in these lists were Thailand and Pakistan. EIA investigators then contacted many of the frequent offender companies, as well as additional companies that EIA analysts found through web searches and product listings. During in-person undercover meetings in Bangkok, high-level representatives at the companies Jenisa, BioNature, Inter Coslab Co., and Viorabio confirmed that they mix mercury into their creams. Viorabio's owner stated they use 4% mercury compounds in their products and that "the price is high because we import the mercury."

All companies sell their creams domestically in Thailand, and two of the companies, Inter Coslab and BioNature stated that they also sell in other countries, including Cambodia, Laos, Burma, and Japan. Several of these companies mentioned that their sources of mercury were the U.S. and/or India, though the prevalent impression given to EIA investigators was that these companies buy from domestic suppliers and do not know the original mercury sources. EIA analysis of Panjiva trade data shows that Thailand appears to regularly import mercury compounds from India, but could not confirm the identity of the Thai importers in the shipment data.

As per trade data, since January 2018, approximately ten shipments have been sent from the U.S. to Thailand, containing either elemental mercury or mercury compounds.[37,38] In that time, there were 34 shipments to Thailand from India explicitly containing a variety of mercury compounds (including at least 14 with mercuric chloride), most recently in January and February 2023.[39]

Jenisa: Jenisa appears to be a small-scale local manufacturer and storefront, **who showed EIA investigators several creams all of which the owner confirmed contained ammoniated mercury, referred to as "AM."** They seemed uncertain of the mercury percentage in the creams and indicated they did not know where the mercury ingredients came from. The owner showed investigators one whitening cream which they claimed would be effective in seven days. The intentional addition of mercury compounds to cosmetics in quantities above 1 ppm is a clear violation of the Minamata Convention to which Thailand is a party. Thailand's Ministry of Public Health also added mercury and its compounds (including ammoniated mercury) to the list of substances prohibited in cosmetic products.[40]

Inter Coslab: Inter Coslab advertises itself as a contract cosmetics laboratory that manufactures cosmetics under its own brand and provides contract manufacturing and custom formulation services.[41] EIA undercover investigators met with two high-level representatives at Inter Coslab, who confirmed they add mercury compounds to their products, stating "the mercury compound is a white powder." The same representatives told EIA investigators that their company sells creams domestically in Thailand, as well as in Cambodia and Laos. They stated the shipping is facilitated through local authorities; "for cargo shipping, we pay money under the table for the government policeman in Thailand." These activities appear to violate the restrictions of the Minamata Convention to "not allow, by taking appropriate measures, the manufacture, import or export of mercury-added products."[42] The representatives were unwilling to reveal their mercury source.

The representatives showed EIA investigators several creams they said contained mercury, including one for whitening armpits that was light blue, containing 2% of a mercury compound, which the company sells in Cambodia and Laos. Several other creams, not yet packaged, ranged in appearance, including neon green, bright pink, and white. They warned the white cream could darken after a few months, depending on the weather. They explained that the color instability was why they added artificial coloring to the other creams. However, even the color-added creams could darken once exposed to heat and air. They confirmed that the mercury ingredient they mix into their creams is a white powder. They discussed a typical mercury compound percentage of 3-3.5%, but when asked, said it would be possible to have mercury compound concentrations up to 4%.

Another employee showed EIA investigators the laboratory part of their facility, including the machine for mixing the mercury into the solution; they explained that for the creams containing 4% of a mercury compound, for every kilo of cream, they would mix in 4[0] grams of mercury compound. [Note: EIA believes that the employee intended to say 40 grams.] They spoke of producing and packaging 200 kg quantities of this cream.[43] The price they quoted for the mercury-added SLP was US$87/kilo.

A cosmetics executive in Thailand explains the SLP ingredients, including mercury compounds.

BioNature: EIA investigators spoke with the owner of BioNature in an undercover meeting. The owner confirmed that they import the mercury ingredient for their creams, which they said was in liquid form. The owner said the U.S. might be the source of the mercury compound but is not sure because a factory placed the order. The owner stated that they sell the creams domestically as well as in Cambodia and Burma. They claimed their creams were of better quality than others because the mercury compound was mixed in well, and would not separate. During the EIA visit, a police officer came in and left; the owner told the EIA investigators that they did not worry about the police; their strategy is not to place the creams at the front of the shop, to be less visible, and stated if the police were to check the products, they would pay the officers to go away. While it is not clear exactly what mercury compounds the owner imports and therefore if they are restricted, the intentional addition of mercury into cosmetics is illegal under domestic law in Thailand.

Viorabio: According to its website, Viorabio is a cosmetics production laboratory that produces its own brands and contracts for other brands. During an undercover meeting, EIA investigators met with the owner of Viorabio, who showed EIA investigators a cream his company makes that contains 4% of a mercury compound, well past the 1 ppm legal threshold (1 ppm is 0.0001%). He said that most Thai manufacturers of such products add a low percentage of mercury compounds, even big factories, though they may deny it. He described a method of "encapsulation technology" his company uses to mix in the mercury ingredient such that the cream would not be susceptible to darkening from oxidation. He said that the mercury compound for his products was sourced from India and the U.S., and mentioned that their mercury raw material was in liquid form. He stated that the mercury compounds from India were a bit cheaper and that the U.S. did not always have sufficient supply. He said he had a friend who handles importing the mercury ingredient from the U.S., and said that there was currently no supply shortage. He claimed to sell his mercury-added products online, such that one could order the product from other countries; and he said one country he sells to is Japan.

Pakistan:

Confirmed mercury SLP production

Several brands manufactured in Pakistan and distributed widely in many countries have been frequently found to contain mercury: Biocos, Goree, Faiza, and Golden Pearl. Additionally, trade data (analyzed by EIA) shows that these brands are often shipped from Pakistan.[44] A 2018 joint report of the Ministry of Climate Change and the Sustainable Development Policy Institute (SDPI) in Pakistan, presented testing of 59 local and international brand products with findings that 56 contained mercury (up to 44,292 ppm) above the limit.[45,46] The industry producing SLPs "is growing in Pakistan unlike other developed countries of the world" with recent years seeing an exponential surge in cosmetic use in Pakistan.[47,48]

In meetings with EIA undercover investigators, high-level representatives from Faiza and Biocos admitted to adding mercury in their products. Both companies confirmed that they reach global markets, such as countries in Africa, by having a distribution base in the UAE.

Poonia Brothers (Faiza): An executive stated that his company manufactures creams that it sells under its own name, as well as private labels for other brands. He stated that Faiza sells over three million creams per month and that the Faiza beauty cream is the company's flagship product, representing about 80% of sales. The Poonia executive confirmed to EIA investigators that his company manufactures SLPs that contain mercury compounds, but claimed the amount of mercury added to the Faiza-branded products is an "acceptable level," (Note that products labeled Faiza beauty cream appear 19 times in the ZMWG database for exceeding the 1 ppm threshold in years 2013, 2018, 2019, 2020, and 2021). According to a Daily Pakistan media article, Pakistan Standards and Quality Control Authority (PSQCA) has issued notices to the manufacturer (M/s Poonia Brothers) for exceeding mercury limits (60 mg/Kg (60 ppm) which is much higher than the limits set by the Minamata Convention and World Health Organization (WHO) at 1 mg/kg).[49] When asked if the formulation of the Faiza creams varied in the country, he said that previously, the formula had varied, but now the formula was unified. The executive stated that when the formula was varied, the problem arose that people would bring a Faiza cream purchased in Dubai, where the mercury content was claimed to be within the legal limit, to Europe, where the limit was exceeded. It should be noted that the UAE has been a Party to the Minamata Convention since 2015.[50]

The same employee also mentioned that his company's products are monitored and tested in various countries, so Faiza cannot risk exceeding the acceptable mercury limit. He claimed that his company, being well established with a 27-year history, does not need to put

In meetings with EIA undercover investigators, high-level representatives from Faiza and Biocos admitted to adding mercury compounds to their products. Both companies confirmed that they reach global markets, such as countries in Africa, by having a distribution base in the UAE.

A cosmetics executive in Pakistan explains the ingredients of Goldish Beauty Cream, including mercury compounds.

The Poonia executive discussed having to remove words such as "whitening" from their packaging in some countries because of accusations of racism. Instead, they use other phrases in these countries such as "balance your skin tone". However, he said, the customers know the main function is whitening.

an excessive amount of mercury compound in his product, because customers are familiar with the product. He explained that **new companies wishing to get rapid attention put higher quantities of mercury compounds in their products**. Finally, he confirmed that his company currently produces creams that contain higher amounts of mercury compounds, but only for private brands, not to be sold under the Faiza brand. He stated that his company is doing this for at least one client in Pakistan and some clients in Africa, with claims that the product has "results in three to seven days".

If Faiza is indeed selling creams with "higher amounts of mercury" (in excess of 1 ppm) or intentionally adding mercury compounds, this would violate production and export restrictions under the Minamata Convention. He stated his company can manufacture products with higher amounts of mercury because it is not restricted in Pakistan. "For a private label brand, we can make it. And we are doing it because it's not restricted in Pakistan. We are doing it for different brands. "It should be noted the Chemical Division of the Pakistan Standards And Quality Control Authority has enacted a 1 ppm threshold.[51] According to this same employee Faiza is headquartered in UAE and Pakistan. In Pakistan, the company employs over 600 people and the Dubai office employs around 70-80 people. Faiza has manufacturing facilities in both Pakistan and Dubai, and is registered in Pakistan and UAE (in Umm al Quwain), as well as over ten countries including the UK, Oman, Iran, Afghanistan, and India, and sells Faiza beauty cream in more than 50 countries, including Pakistan, UAE, Saudi Arabia and the Gulf region, African countries, Iran, India, Sri Lanka, Türkiye, and Iraq. The executive explained that the reason for manufacturing from Dubai, as well as from Pakistan, was to significantly reduce shipping times to ship a fresher product. Shipping from Pakistan to Africa, according to him, must first go through Dubai, and the total journey can take more than

80 days. Meanwhile, the shelf life of the Faiza product is between 170-180 days, after which the cream dries out.

He explained that the packaging also plays a role in sales and distribution. For example, packaging with Urdu writing is used for sales in Pakistan, while Arabic writing is used for sales in India and UAE. According to the same source, Gulf region buyers believe the Arabic script on the packaging confirms the authenticity of the product. He also discussed that his company has had to remove words such as "whitening" on their packaging in some countries, including in Africa, because of accusations of racism. Instead, they use other phrases in these countries such as "balance your skin tone". However, he said, the customers know the main function is whitening.

He also mentioned that his company manufactures the cream sold under other brands, including Aneeza, Aifa, and Nizwa.[52,53,54] Note that Aneeza Gold Beauty Cream appears in the ZMWG database as having exceeded the 1 ppm threshold 11 times between 2019 and 2021. According to this same employee, in Pakistan, there are only three large companies with manufacturing facilities for these products from which most other brands get their production. The three are Faiza, Golden Pearl, and Face Fresh. Other manufacturers can only produce smaller quantities.

Biocos: EIA investigators spoke undercover with high-level representatives of Biocos. The executives confirmed on both occasions that their company adds mercury compounds to their creams. One of them explained that his company adds mercury compounds into their products because "without it the product is useless." According to him, this is a mainstream practice. ("We do use it. Everyone uses it.") According to the same sources Biocos produces 150 products across four factories, including a large one in Lahore, as well as a Dubai office. They manufacture their own brands of products, as well as for third parties (white label production). In a meeting with an EIA investigator, one of Biocos' executives showed an example of a best-selling product his company produces, Goldish, and stated that the cream contains mercury. According to this same source, the company is the highest seller of creams, serums, and soaps, and has an annual capacity of ten million (one crore) units per year. This product is listed on the website.[55]

"This is Biocos Goldish. This is a very, very famous product right now, four-in-one formula. This is cream, soap, whitening serum, and whitening capsule. [...] The mercury [compound] is in the cream; the capsule is the (glutathione) booster."

Asked about the Pakistani government's attitude towards the use of mercury, one executive explained that the government has previously stated it will ban mercury-added products, but enforcement is not strict. "Government is not watching it...like 50/50. It is watching and it is not watching." This statement is supported by recent studies suggesting effective checks and balances and specific regulations on standards for mercury are lacking in Pakistan.[56] Mercury-added SLP production is prohibited under the Convention and Pakistan's domestic threshold of 1 ppm enacted in 2017.[57]

The executive explained that a water-based cream, such as Goldish, requires less mercury compound than an oil-based cream to achieve the same result. He said one can use up to 2.5-3% mercury compound in water-based creams, but up to 4-4.5% in oil-based creams. He also advised that at higher percentages, mercury's "side effects" become harder to control and that one ought to add chemicals to balance negative side effects like irritation. It should be noted there is no medical evidence to support claims that other chemicals render mercury safe for use in SLPs.

Asked about the origin of the mercury, the executive said the source was sometimes India, sometimes Spain. Asked specifically whether China was ever a source, he said no, and stated that while there is mercury in China, it is of poor quality. Asked about whether the mercury ingredient was pure liquid or a compound, the same source said it could come as both, but his response – that there are facilities in Pakistan to convert the pure mercury to a compound – suggests to EIA analysts that by the time his company is adding it as an ingredient, the mercury is already in compound form.

He said whitening creams are popular around the world, but the packaging has to be changed to suit country-specific market preferences. To reach markets in Africa, South America, Bangladesh, Iraq, etc., they sell through Dubai, UAE. The executive said that DHL (a delivery service) has many restrictions in Pakistan, but there is an abundance of logistics companies in Dubai.

India:

Confirmed mercury compound production

In conducting trade data analysis for Thailand, EIA observed that India was a significant exporter of mercury compounds, as well as an importer of pure mercury. Both Biocos (Pakistan) and Viorabio (Thailand) had also named India as a source of their mercury or mercury compounds.

Using Panjiva, between April 2018 and April 2023, EIA observed approximately 2,500 global import shipments stating that they contain either elemental mercury or mercury compounds. Using the same search parameters for global exports, EIA found 1,700 shipments said to contain either elemental mercury or mercury compounds. The vast majority, 1,606, were exported from India. All but one of the 27 shipments to Thailand said to contain some form of mercury (all of which were mercury compounds) were from India.

EIA analysis then narrowed down Indian exporters of interest to three key companies: Macsen, Champa Purie, and Gurjar Chemicals.[58,59,60]

Macsen: Macsen states on their website that they supply "the best quality Ammoniated Mercury USP used in skin whitening creams." According to EIA analysis of Indian export data from January 1, 2016 to April 30, 2023, Macsen has exported approximately 207 shipments containing mercury.

EIA investigators spoke undercover with a high-level representative at Macsen. According to this employee Macsen exports to Egypt, Pakistan, Bangladesh, Bolivia, Türkiye, Lebanon, and others. They said that Macsen frequently ships ammoniated mercury under another name, amido (hg) chloride or amido (hg ii) chloride. This was supported by EIA's analysis of Indian export data which found at least 40 mercury compounds shipments from Macsen with goods described as "amido hg (ii) chloride".[61]

EIA analysis of Indian export data (using search parameters of goods descriptions + HS code + "amido hg (ii) chloride") showed that the top destinations for Macsen's mercury compounds are Thailand, Pakistan, the UAE, the UK, Türkiye, and Bolivia. The most frequent goods descriptions were merbromin (76 shipments) or mercurochrome (46), followed by mercuric chloride (41) and amido hg (ii) chloride (40).[62]

The same source provided EIA with a document that shows that Macsen has purchased its mercury from a Japanese company named Nomura. Based on EIA research, this likely refers to the company Nomura Kohsan, a mercury recycler.[63] According to Nomura Kohsan's website, their recovered mercury is sold either to manufacturers of specific products (such as fluorescent lamps) or to academic and research institutions, for use as reagents. However, Nomura has been exporting to Indian traders, including some like Macsen and Gurjar, who explicitly state on their websites that they sell ammoniated mercury for use in SLPs. While the Convention limits elemental mercury exports to "use[s] allowed to the importing Party under this Convention,"[64] if elemental mercury goes to a compound producer, the exporter may not know if the compound is then used for an approved product or application.

Champa Purie Chem Industries: According to its website, Champa Purie manufactures a range of products including "mercuric salts." Based on EIA analysis of trade data, mercury compounds represent more than half of Champa Purie's exports by number of shipments (147 of 250 total shipments from January 1, 2016, to April 30, 2023). Since 2016, Champa Purie has exported mercury compounds at least 147 times.

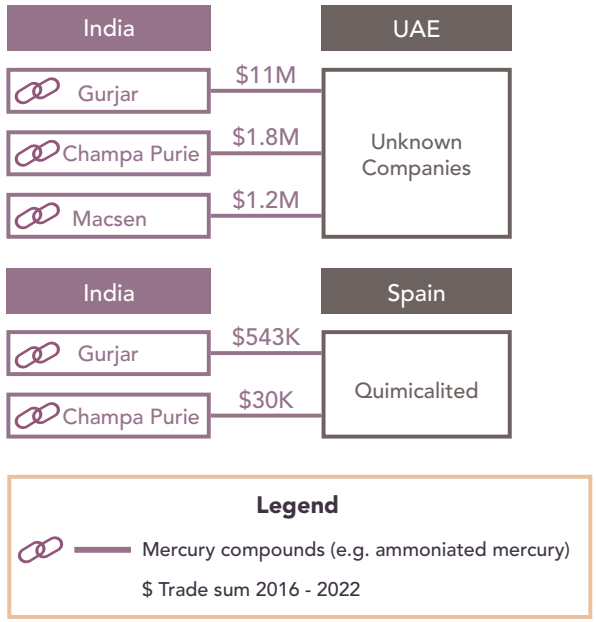
In an undercover interview with EIA investigators, a high-level executive at Champa Purie stated that Champa Purie obtains raw or elemental mercury from many countries, with no particular fixed source. He stated that Pakistani companies producing mercury-added SLPs were sourcing mercury compounds from India, but not from his company.

Gurjar Chemicals: Gurjar Chemicals exclusively deals in producing mercury compounds, according to its website. The very first mercury compound listed on the Gurjar website is ammoniated mercury chloride, and its stated use is "in skin whitening cream."

EIA's analysis of Indian export data showed that of the 159 export shipments from Gurjar from January 1, 2016, to April 30, 2023, all but four stated they contained mercury compounds, and three of four remaining shipments had the HS code 28529000, corresponding to mercury compounds. Of Gurjar's 159 exports, most stated

Regional Supply Chain Diagram 1

According to EIA analysis of trade data.



Due to restrictions on Pakistan-India trade, the Gurjar executive explained that he cannot export directly to Pakistan, but does so indirectly, via the UAE. The executive stated, of the four tons of ammoniated mercury his company exports each month, 75% ends up in Pakistan.

that they contained mercury chloride (126 of 159 shipments). The main destination country for Gurjar's mercury compounds is UAE, representing 90% of the exports by value, and 55% by number of shipments (88 of 159) between January 2016 and September 2022.

In an undercover interview with EIA investigators, a Gurjar executive stated that his company is one of just three in India that produce mercury compounds for export: Gurjar, Macsen, and Champa Purie. According to this executive, Champa Purie currently does not have sufficient mercury in stock to produce compounds, and would likely subcontract any new orders to Gurjar.

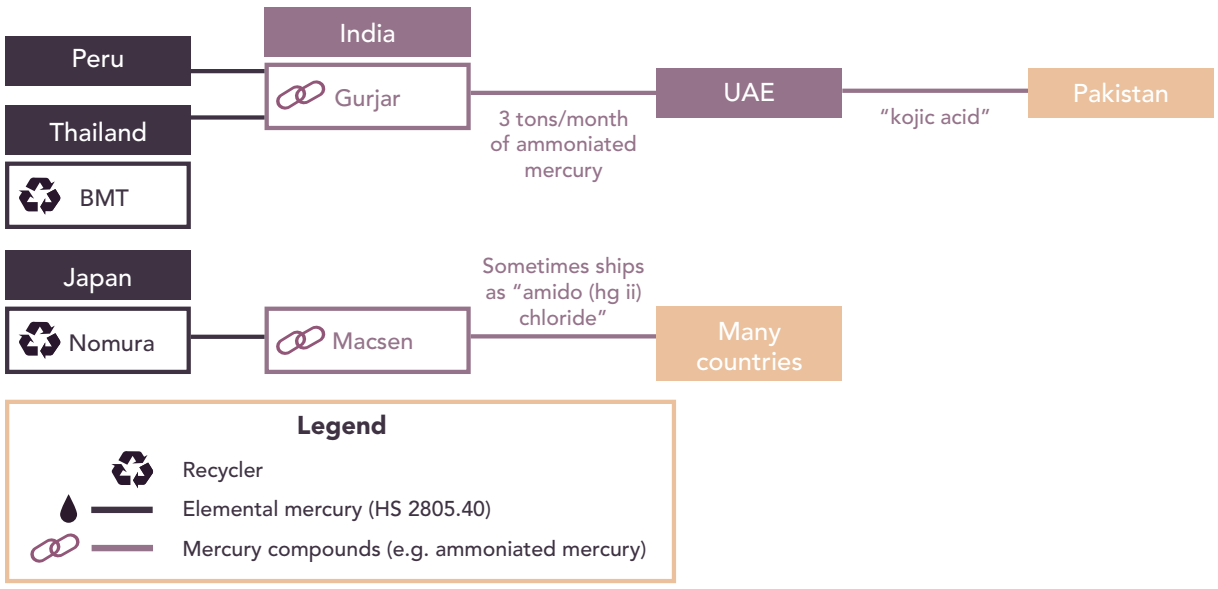
According to the same executive, Gurjar has the capacity to produce a maximum of four tons of ammoniated mercury per month, based on its maximum processing capacity of 5-6 metric tons per month of his input, mercury chloride. Due to restrictions on Pakistan- India trade, the Gurjar executive explained that he cannot export directly to Pakistan, but does so indirectly, via the UAE. The executive stated, of the four tons of ammoniated mercury his company exports each month, 75% ends up in Pakistan. This is supported by EIA analysis of trade data, referenced above, showing that most of Gurjar's exports by value and number of shipments were to the UAE. He stated that due to restrictions in Pakistan on importing mercury in cosmetics, Pakistan imports mercury-containing compounds using a false product description—kojic acid. It appears he was referring to Pakistan's Import Policy Order from 2020 banning mercury and mercury compounds.[65] However, he said that Gurjar does not habitually use false product descriptions in its shipments, because the company is required to document its mercury account balance to the relevant Indian ministry.

Aside from Pakistan, the Gurjar executive said he also exports mercury salts to companies located in Spain, all of them owned by the same individual. EIA research shows that only one Spanish company, Quimicalited, is still in operation. The Gurjar executive said that these Spanish companies sell mercury products globally, and confirmed that Quimicalited had sold mercury compounds, specifically ammoniated mercury, to the company Noah Chemicals in the United States.[66] He also speculated that previously, Noah's mercury source had been Macsen (another Indian company investigated by EIA) and that they had later switched to Gurjar, via Quimicalited. According to the executive, Gurjar was supplying Quimicalited until 2022, at which point they ceased "because of Minamata."

According to the same Gurjar executive, Gurjar has several sources of raw or elemental mercury, including from Peru, as well as a recycled mercury source in Thailand. Gurjar's executive said it had previously imported raw mercury from countries including Mexico and Russia, but for various reasons, was no longer receiving offers from those countries. The executive explained that Gurjar does not import pure mercury directly, but uses Indian trading companies—metals dealers who know the market. **This highlights the gap in coverage created by not tracking and controlling compounds when elemental mercury is exported for uses purportedly allowed under the Convention.** (EIA notes that he may have been referring to Pakistan's

Regional Supply Chain Diagram 2

According to interviews with Gurjar and Macsen executives.



Import Policy Order from 2020 banning mercury and mercury compounds.) The Gurjar executive also mentioned that he is "not worried that new regulations will force his company to stop producing mercury salts." He claimed that in 2015, Minamata made it hard for new entrants to deal in mercury, but existing companies like Gurjar can continue, as long as they do not supply directly to buyers engaged in gold mining .

United Arab Emirates (UAE)

Intermediary for compound and SLP distribution

Despite the fact that Dubai Municipality has issued a notice not to use "Faiza Cream" (which was previously announced by the UAE Ministry of Health and Prevention) the UAE appears to be serving both as an intermediary country for sales of mercury compounds to Pakistan, as well as a distribution hub for Pakistani mercury-added SLPs to other countries.[67] This assessment was based on EIA investigations with companies in India and Pakistan, as well as EIA analysis of trade data, As described in the Pakistan section, executives at both Faiza and Biocos explained that for logistical and distribution reasons, their companies have established facilities in the UAE. Biocos said there are shipping restrictions from Pakistan, whereas shipping from Dubai is very easy. As mentioned in the India section, according to the interview with a Gurjar executive, Gurjar exports 75% of its mercury compound production to Pakistan via the UAE. EIA's analysis of trade data confirms that more than half by number of shipments, and more than 90% by weight of Gurjar's mercury shipments are exported to the UAE.

Trade data suggest companies in the UAE are acting as "middle-men" to facilitate the shipment of mercury compounds. Most of the real importer company names do not appear in the shipping data. However, EIA identified at least one UAE company that may be serving as an intermediary for Gurjar and other Indian companies, to export mercury compounds to Pakistan. This UAE based company appears to provide warehousing for transshipments, based on its registered address and satellite map imagery. Using trade data, EIA identified shipments of mercury compounds from Gurjar to this UAE based company, as well as exports from the same UAE based company to Pakistan labeled as kojic acid. This company has received at least six shipments of mercury from Gurjar (their name appears in the goods description, not the consignee), as well as at least six shipments of mercury compounds from Macsen.

According to the Gurjar executive, one way in which Pakistani companies import mercury compounds while evading scrutiny is to import it using a false product description, kojic acid. This seems to be supported by EIA analysis of trade data. Of the 325 shipments that Pakistan imported from a suspected intermediary, at least 23 reported to be kojic acid. However, it is uncertain what percentage of shipments of kojic acid are legal versus potentially fraudulent descriptions. Kojic acid is a legal compound found in many cosmetics for whitening and removing blemishes. While mercury compound trade and mercury-added SLP production is not regulated domestically, the export of mercury-added SLPs is a significant violation of the Minamata Convention.

Deluxe Silken Nadinola Cream 2.25 ounce

$20.00 USD

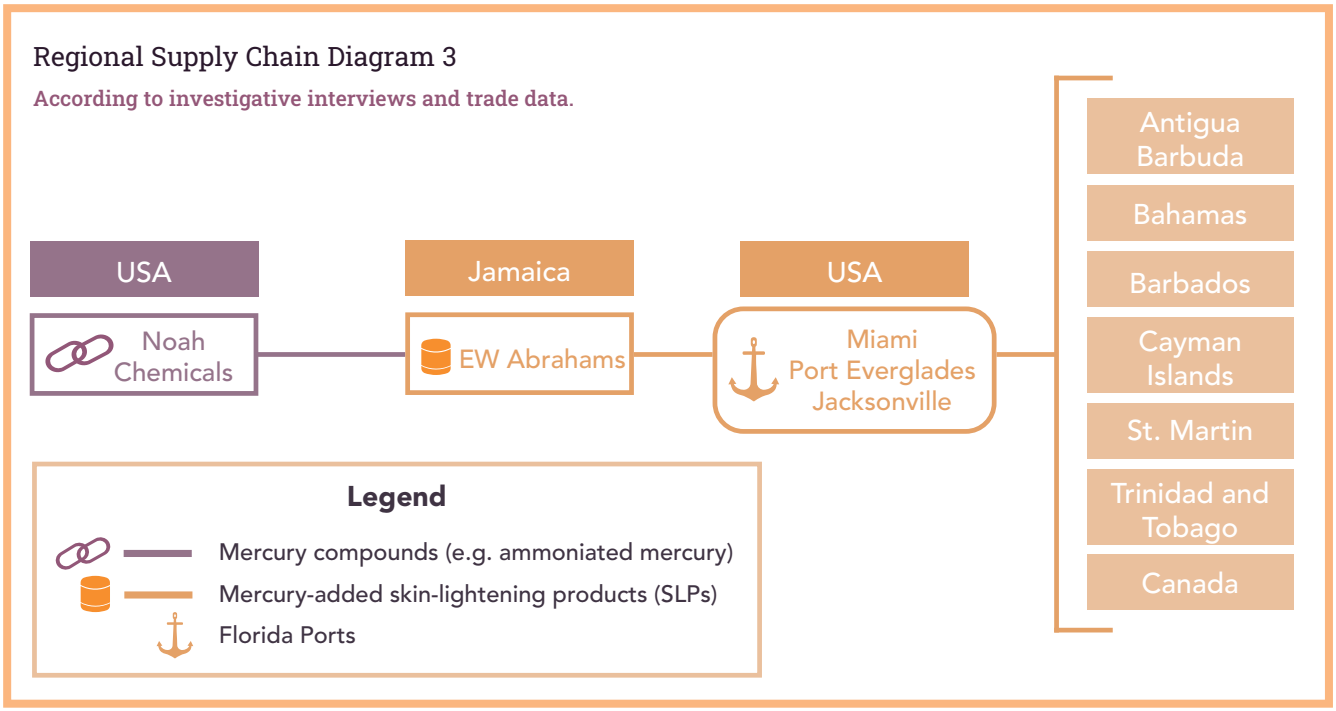
In Stock
Shipping calculated at checkout.

Add To Cart

DeLuxe SILKEN Bleaching Cream For Oily or Normal Skin. Jamaican Deluxe SILKEN fades dark spots and freckles, lightens and brightens skin to a smooth radiant glow. This creamy educes oiliness as it blends into the g to combat blackheads for a

COUNT COUPON

ZMWG has confirmed these products remain available for sale online.



North America and the Caribbean

Jamaica:

Confirmed mercury in SLP production

For 60 years, the company E.W. Abrahams & Sons Ltd has openly sold a popular mercury-containing cosmetic cream in Jamaica.[68] The product packaging states that the product contains 3% ammoniated mercury, and the cream is sold in mainstream stores in Jamaica, such as Fontana pharmacies. EIA investigators reached out to E.W. Abrahams' owner and spoke with him in an undercover meeting. In the meeting, he disclosed that he, and his father before him, have been mixing ammoniated mercury, in powder form, into his cream for decades. He explained that his company sources the raw ingredients and mixes them at a partner's production facility near his office, in Kingston, Jamaica.

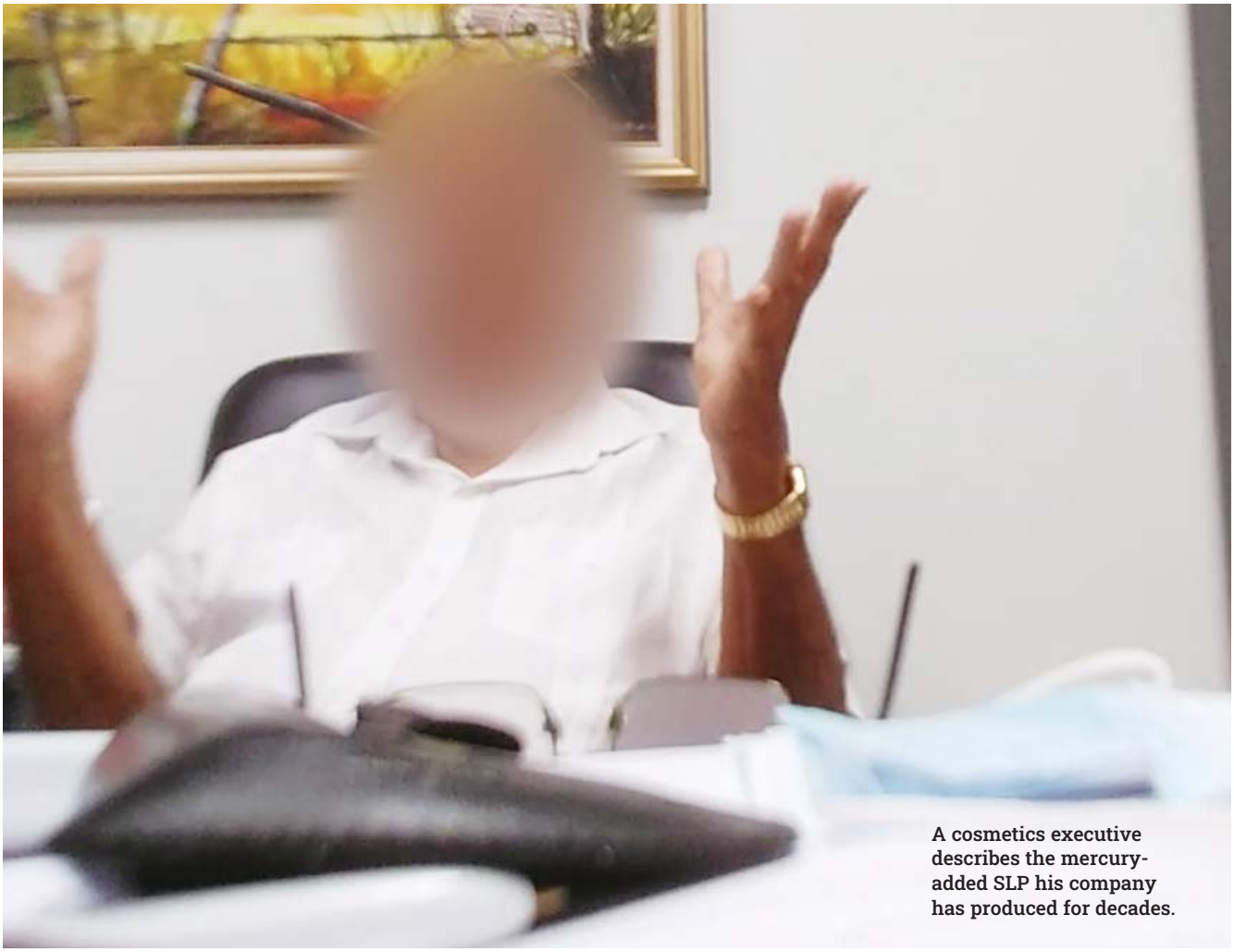
He stated that he imports the ammoniated mercury from the United States, from the same source he has bought from for decades.

The product openly states that it contains 3% ammoniated mercury on its packaging, despite that being a violation of the Minamata Convention, to which Jamaica is a Party. According to the owner, the reason for putting the word mercury on the label is that "we cannot deceive the consumer." He also stated that if authorities were ever to push back on his sale of the technically restricted product, he would need to bribe them. It appears that the authorities of Jamaica are yet to enact national laws in compliance with the Minamata Convention.

The company E.W. Abrahams has produced the mercury-added SLP in Jamaica since the 1960s. At the time, the product was named Nadinola and was produced under a licensing agreement with the United States' J. Strickland company. Nadinola cream was first produced and sold in the United States. In 1973, the U.S. began enforcing a domestic ban on the use of mercury in cosmetics, and J. Strickland company replaced the ammoniated mercury in Nadinola with hydroquinone. However, the U.S. company's Jamaican license holder, E.W. Abrahams continued to produce Nadinola using mercury. In 2015, E.W. Abrahams severed its franchise with the U.S. company and renamed its cream to Silken Deluxe.

According to the owner of E.W. Abrahams, his company has been importing ammoniated mercury from the United States for many years to produce Silken Deluxe.

According to the owner of E.W. Abrahams, his company has been importing ammoniated mercury from the United States for many years to produce Silken Deluxe. In a separate undercover call, EIA investigators were able to confirm that Noah Chemicals, a Texas-based company, is currently exporting the mercury compounds to E.W. Abrahams.



A cosmetics executive describes the mercury-added SLP his company has produced for decades.

In a separate undercover call, EIA investigators were able to confirm that Noah Chemicals, a Texas-based company, is currently exporting the mercury compounds to E.W. Abrahams. The Noah company representative that EIA spoke with explained that Noah does not manufacture this mercury compound, but "brings it in" from another source. This representative was aware that the mercury compound they supply to E.W. Abrahams is being used for skin whitening products.

Based on EIA analysis of U.S. trade data available in Panjiva for years 2007 to 2023, the Silken Deluxe cream has been exported from Jamaica to many Caribbean countries, and appears to frequently transit through U.S. ports, most often Miami and Port Everglades, Florida. Since 2015 approximately 75 shipments containing either Nadinola or Silken skin creams have shipped from E.W. Abrahams in Jamaica to ports in Florida, apparently in transit to a final destination in the following countries: Antigua and Barbuda; Bahamas; Barbados; Canada; Cayman Islands; St. Martin; and Trinidad and Tobago. **This is another example of the critical role intermediary countries play in facilitating trade, even though production of the creams may not be located in these countries.**

Europe

Spain:

Confirmed export of mercury compounds for SLPs

The executive of Gurjar told EIA investigators in an undercover meeting that his company has supplied Spanish companies with mercury compounds. The executive explained that these companies, including Quimicalited, were all controlled by the same Spanish individual.[69] EIA analysts were able to investigate and identify this individual's affiliation with Quimicalited. EIA analysis of trade data found that Quimicalited is a company that has traded in mercury compounds since 2018. According to EIA's analysis, Quimicalited received ten shipments between July 14, 2018 and July 13, 2023; all but one stated they contained mercury compounds and all were from India. The most recent three were from Macsen, all others were from Gurjar.

Analysis of the same trade data showed Quimicalited shipped goods seventeen times between July 14, 2018 and July 13, 2023 including nine times to Pakistan, once to India, seven times to Colombia. All nine shipments to Pakistan stated that they contained thimerosal, a mercury-based preservative found in vaccines with

multi-dose vials.[70] The shipments to Colombia do not appear to specify the contents though they provide a permit number.

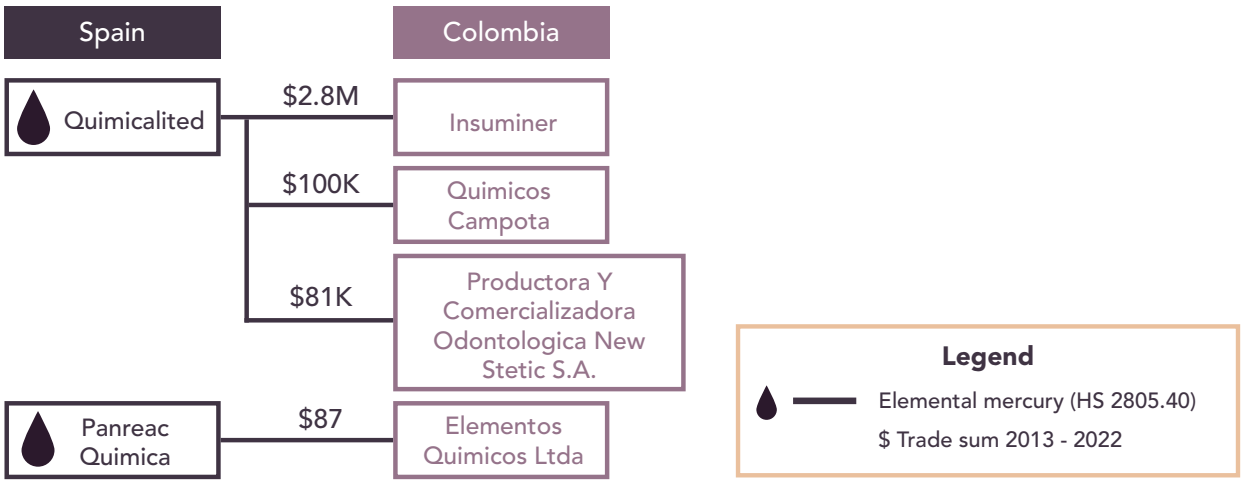
An analysis of all Colombian imports from the company Quimicalited showed 27 shipments since 2007. Prior to 2016, Quimicalited's main buyer in Colombia was a gold mining company named Insuminer. Between 2013 and 2016 Insuminer imported fifteen times from Quimicalited, usually with the goods including "flasks of mercury." The HS code 2805.40[71] indicates the shipments contained elemental mercury which would appear to be in violation of the EU export ban in place since 2011.[72]

As of 2016, Quimicalited's only Colombian buyer is a chemical distributor named Quimicos Campota[73]; the twelve shipments to Quimicos Campota sometimes, but do not always state their contents as having mercury. According to its website, Quimicos Campota supplies chemicals to multiple sectors, including mining. This finding seems to support the executive from Gurjar's (India) claim that Minamata has constrained mercury sellers from selling directly to gold mining companies. However, it is possible that Quimicos Campota has become the indirect supplier to Insuminer, which would suggest that it is relatively simple to work around this constraint using intermediary suppliers. EIA investigators spoke with Quimicalited's owner in an undercover call. The owner, located in Spain, confirmed that he continues to sell mercury compounds to international markets. He stated that he holds a European certificate permitting him to export to these markets, although he has moved his production to partner facilities outside of Europe entirely, to locations he did not wish to immediately share. He assured investigators that even though the compounds are made outside of Europe, they would be exported from Europe, with his Spanish company serving as an intermediary for the trade of mercury compounds for SLPs. When asked if he could also supply pure mercury, he indicated that the situation had become too complicated for him to continue that business. The owner of Spanish company Quimicalited was asked by investigators if he was willing to supply ammoniated mercury for use in the production of skin whitening products, he answered unhesitatingly in the affirmative. He went on to state, "we supply many customers [for] a long time in this market, we know this market of creams for the skin."

The owner of Spanish company Quimicalited was asked by investigators if he was willing to supply ammoniated mercury for use in the production of skin whitening products, he answered unhesitatingly in the affirmative. He went on to state, "we supply many customers [for] a long time in this market, we know this market of creams for the skin."

Regional Supply Chain Diagram 4

According to investigative interviews and trade data.



RECOMMENDATIONS

Parties are struggling to eliminate mercury-added SLPs. Fortunately, countries can take meaningful action to protect consumers and the environment by strengthening regulations and enforcement mechanisms, increasing resources for testing and monitoring, enhancing consumer education and awareness, fostering research and development of safe and effective alternatives, and enforcing Minamata obligations to report mercury trade (including the six currently restricted mercury compounds). EIA proposes the following recommendations:

1. **Update national laws to be consistent with the Convention**
2. **Strengthen and ensure enforcement of the manufacturing and trade ban of mercury-added SLPs in the manufacturing countries**
3. **Take measures to control online sales**
4. **Control the production and trade of mercury-added compounds**

1. Update national laws to be consistent with the Convention

Regulations and enforcement mechanisms must be strengthened, both at the Minamata Convention level and the national level, to develop prohibited product lists with complementing legal requirements. Ingredient disclosure on the label must be required at the national level, with severe penalties for violations. Illegal producers of mercury-added SLPs may then be prosecuted for both the mercury and failing to comply with disclosure requirements.

At a minimum, all parties must enact and enforce national laws to be consistent with the Convention, particularly regarding limits and bans on mercury-added products.

2. Strengthen and ensure enforcement of the manufacturing and trade ban of mercury-added SLPs in the manufacturing countries

At the Convention level, resources should be provided for the purchase of field sampling instruments such as X-ray fluorescence (XRF) devices, to facilitate customs screening. In addition, the global supply chain work of this investigation should be expanded to locate all significant mercury compound sources and SLP production facilities, in conjunction with coordinated regional enforcement activities.

Enforcement remains a significant challenge as companies in manufacturing countries that are parties to the Convention are still producing mercury-added products or mercury compounds for explicit use in SLPs. Regulatory action in these countries is key to controlling the presence of mercury-added creams that are spreading all over the globe. To achieve compliance, countries will need assistance building capacity and sharing knowledge of common tactics to smuggle mercury and mercury compounds. Compliance strategy for this product category will require institutional support for equipment and customs training as well as guidance standing up domestic legislation and enforcement.

Some Parties with SLP manufacturing may need support to develop a "roadmap" for phasing out mercury-added SLPs including a roadmap with a timeline and a potential "checklist"—for engaging and coordinating relevant ministries domestically and thorough regional cooperation and collaboration internationally—to effectively implement and enforce the Minamata Convention ban on mercury-added cosmetics including mercury SLPs.[74] Such comprehensive materials can be useful for Parties dealing with all mercury-added products, including dental applications, lamps, batteries, electronics, and measuring devices.

3. Take measures to control online sales

National governments should require online retailers to comply with prohibited product lists by removing flagged items, taking measures to ensure the legitimacy and accountability of persons or companies selling cosmetics on their platforms, and prohibiting repeat offenders. Requirements to take preventive measures to stop cosmetics over 1 ppm from entering the market should be mandated for online retailers. To combat the online sales of restricted products, parties should start by further developing and implementing strategies to discourage marketing, advertising and display, advisories, detention and prohibited substances lists, as well as requesting licensing and product ingredient approvals for manufacturing facilities and/or engaging with online platforms to implement product safety pledges. Domestic and regional interministerial coordination and collaboration will be necessary, together with raising consumer awareness, among other measures, to facilitate online SLP consumer protection and enforcement on a global scale.

Country authorities have undertaken government sampling and testing initiatives to intercept contaminated products and flag them as risky to the public. Detention lists from the European Union, Kenyan Bureau of Standards, Philippines Food and Drug

Administration, and others listed in Annex A of ZMWG, 2019, sample products and alert consumers of potential risk.[75] These lists can facilitate online platforms in the swift removal of prohibited products.

4. Control the production and trade of mercury-added compounds

Trade data and undercover conversations with company owners from Thailand, Pakistan, India, Spain, Jamaica, and company representatives in the U.S. have all confirmed the trade of ammoniated mercury for use in skin lightening cosmetics. This compound is currently not listed among the mercury compounds definition in Article 3. Moreover, EIA's investigation revealed it is common practice for SLP producers across the globe to produce creams containing 3-4% of mercury compounds. The lack of mercury compound restrictions at international and national levels allows the mass production of creams in a wide range of factory sizes and sophistication. Those who trade in mercury compounds can operate with impunity across jurisdictions, often even when clearly stating the intended use of their products for the creation of SLPs. Regulatory authorities in the EU and U.S. must expand their respective lists of restricted mercury compounds, and specifically include ammoniated mercury.

To restrict the supply of SLPs and the mercury compounds within, it is vital to close the loopholes that allow most mercury compounds to avoid the same scrutiny as elemental mercury while also providing greater resources for customs enforcement, under the Convention and at the national level. Paragraph 13 of Article 3 provides a mechanism for initiating this process under the Convention. At a minimum, mercury compounds should not be produced or traded for uses not allowed under the Convention. Countries must impose severe penalties for unlicensed imports of mercury or compounds, and to be effective, penalties must apply to free trade zones. Parties and companies should also consider tracking the ultimate uses for the elementary mercury exported, particularly as they relate to non-allowed activities under the Convention.

CONCLUSION

Parties must remedy the gap in the list of mercury compounds and close loopholes that allow these compounds to be freely traded for the production of SLPs. Regulators in both the EU and United States should use their authority to rectify these omissions. Online sales of toxic mercury-added SLPs will remain an issue unless vendors are required to implement preventive measures. This investigation has further revealed that key centers of activity have not implemented the Convention.

A comprehensive compliance strategy is required to address major production countries as well as transit countries through which SLPs or mercury compounds pass through, including those identified in this report: the United States, Spain, and United Arab Emirates. These toxic products will only cease to exist when countries shut down their production and restrict the movement of mercury compounds around the globe.

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