

# MERCURY-ADDED SKIN-LIGHTENING CREAMS:



**Available, inexpensive and toxic** November 2018

## Executive Summary

The toxic trade of often illegal mercury-added skin-lightening products is a global crisis expected to only worsen with skyrocketing demand, especially in Asia, the Middle East and Africa.<sup>i</sup> Consistent with other research, a new Zero Mercury Working Group (ZMWG) study indicates that a significant percentage of skin-lightening creams sold worldwide contain dangerous levels of mercury.

In 2017 and 2018, 338 skin-lightening creams from 22 countries were collected by seventeen of our non-governmental organization (NGO) partners from around the world and tested for mercury. 34 creams (10% of the samples) had mercury concentrations ranging from 93 - 16,353 parts per million (ppm). These levels significantly exceeded not only the legal standard established by countries that regulate these products, but also the provisions set forth in the Minamata Convention disallowing after 2020 the "manufacture, import or export" of cosmetics with a mercury content above 1 ppm.<sup>ii</sup>

In Bangladesh, almost 50% of the creams sampled and tested had mercury content exceeding 1 ppm. In the Dominican Republic and Indonesia it reached 33% and 31% respectively.

In Mauritius one out of 15 creams was found to contain more than 1 ppm (7%). 19% of the Philippines' samples exceeded 1 ppm mercury content, while the Thai samples reached 63%. Finally, in Trinidad and Tobago, 20% of the samples tested also exceeded the Minamata Convention limits. Sampling was carried out following established protocol in 2017 and further streamlined in 2018.

Mercury is well known to international agencies as toxic and a risk to human health. Regular use of skin bleaching or skin-lightening creams and soaps containing mercury can lead to rashes, skin discoloration and blotching. Long-term exposure can have serious health consequences, including damage to the skin, eyes, lungs, kidneys, digestive, immune and nervous systems.<sup>iii</sup>

Out of the 22 countries where sampling took place, 15 have legislation or other requirements consistent with the Minamata Convention provisions. Out of the 7 countries where high mercury samples were found, only 4 have legal requirements prohibiting creams with more than 1 ppm mercury content.

Our research demonstrates that hazardous substance restrictions and accompanying risk communication strategies in many countries are incomplete and/or inadequately enforced, thereby raising the risk of health effects, primarily to women.

As countries strive to comply with the 1ppm mercury content cutoff provision pertaining to cosmetics in the Minamata Convention on Mercury, a range of measures are available to reduce exposure to mercury from skin lighteners, including renewed opportunities for collaboration with all levels of government and civil society:



- 1) **New laws or regulations.** The Minamata Convention's ban on the manufacture, import and export of mercury-added skin products after 2020 may result in adoption of new national legislation and enforcement programs. Local ordinances can also play an effective role in targeting specific venues of production and sales, raising awareness and promoting measures that can protect consumers.
- 2) **Better enforcement.** Government officials, and in particular customs officers, should be provided with the training and resources to control their national market and intercept cosmetics that violate the Convention, as most may be imported. Several relatively simple and efficient screening technologies can be used to screen products for mercury. The report presents measurement protocols for the X-ray fluorescence (XRF) spectrometer or analyzer, an affordable screening instrument already in use by many customs services and government authorities for doing compliance checks.
- 3) **Non-discriminatory advertising.** Many of the social pressures that underlie the widespread use of skin-lightening products are amplified by the media. Countries should adopt advertising guidelines that ensure advertisers do not reinforce negative social stereotyping on the basis of skin color, akin to those adopted by the Advertising Standards Council of India (ASCI) in 2014.
- 4) **Harmonization of enforcement efforts.** With an increasingly global supply chain, and widespread sales over the internet, governments should coordinate efforts by posting and maintaining a continuously updated list of illegal products. Such up-to-date postings on UN agency and Interpol websites would greatly assist regulators around the world, as well as civil society, to identify illegal products in the marketplace.
- 5) **Targeted monitoring of the marketplace.** To the extent possible, monitoring of the marketplace should be conducted to investigate and prevent the proliferation of hazardous or illegal domestic and cross boundary trading practices. Market surveillance should target especially internet sales as well as small stores that sell creams to specific ethnic groups or immigrant communities.
- 6) **Accurate labeling.** To discourage the marketing of unregulated products, all cosmetics should be labelled according to national regulations, with accurate information on the ingredients, producer, address and country of manufacture. Sellers should also provide documentation verifying that products meet all relevant regulations, and that the labeling language is understandable in the destination country.
- 7) **Education.** While the deeply rooted practice of skin-lightening will not change rapidly, mercury exposure via cosmetics poses serious health but also environmental and indoor air quality risks. Governments, health practitioners and community leaders should initiate culturally-appropriate campaigns about potential risks to people who use skin-lighteners.
- 8) **Popular enforcement.** Civil society groups are well placed to identify suspect products in the marketplace, especially with the use of XRFs or similar screening tools.

The following tables list the 34 skin-care products containing excessive mercury identified in seven countries during research in 2017 and 2018:

Report available at:

[http://www.zeromercury.org/index.php?option=com\\_phocadownload&view=file&id=253:zmgw-report-mercury-added-skin-lightening-creams-available\\_inexpensive\\_and\\_toxic&Itemid=70](http://www.zeromercury.org/index.php?option=com_phocadownload&view=file&id=253:zmgw-report-mercury-added-skin-lightening-creams-available_inexpensive_and_toxic&Itemid=70)

### Skin care products with excessive mercury content (purchased in 2017)

Country of purchase	Country of manufacture	Brand name	Mercury [ppm]
Bangladesh	Pakistan	New Face Whitening Cream	16,000
Bangladesh	Not indicated	Noor Herbal Beauty Cream	16,000
Bangladesh	Bangladesh	Lata Herbal Skin Bright Cream	8,500
Bangladesh	Pakistan	Chandni Whitening Cream	6,800
Bangladesh	Pakistan	White Pearl Plus Cleanser Cream	93
Dominican Republic	Dominican Republic	Crema Blanqueadora Whitening Cream Liso	260
Mauritius	Pakistan	Chandni Whitening Cream	14,000
Philippines	China	Jiaoli Miraculous Night Cream	1,200
Philippines	Hong Kong	Glutathione Grapeseed Extract Whitening / Anti-Aging Night	750
Philippines	China	Jiaoli Miraculous Day Cream	500
Trinidad/ Tobago	Jamaica	Non-Oily Deluxe Silken Bleaching Cream	8,300

**Note:** Mercury content analysed by Enthalpy Analytical Laboratories (California, USA) using Cold Vapor Atomic Absorption Spectroscopy (CVAAS).

### Skin care products with excessive mercury content (purchased in 2018)

Country of purchase	Country of manufacture	Brand name	Mercury [ppm]
Indonesia	Not indicated	Collagen Plus Vit E Night Cream	7,111 <sup>a</sup>
Indonesia	Philippines	RDL Whitening Treatment Night Cream 8 Days Treatment	5,958 <sup>a</sup>
Indonesia	Malaysia	Temulawak Cream (Night Cream)	3,059 <sup>a</sup>
Indonesia	Not indicated	Natural 99 Vitamin E Plus	2,018 <sup>a</sup>
Philippines	Pakistan	Goree Beauty Cream	10,576 <sup>a</sup>
Philippines	China	Jiaoli Day Cream	1,693 <sup>a</sup>
Philippines	Hong Kong	Gemli Glutathione Grapeseed Extract (Day Cream)	1,565 <sup>a</sup>
Philippines	China	Jiaoli Night Cream	365 <sup>a</sup>
Bangladesh	Pakistan	Goree Beauty Cream with Lycopene	16,353 <sup>a</sup>
Bangladesh	Pakistan	Due Beauty Cream	11,940 <sup>a</sup>
Bangladesh	Taiwan	Huayenong - Bird's Nest Cosmetology	10,749 <sup>a</sup>
Bangladesh	Pakistan	Golden Pearl Beauty Cream	9,648 <sup>a</sup>
Bangladesh	Pakistan	Faiza Beauty Cream	9,053 <sup>a</sup>
Bangladesh	Taiwan	Egg White and Cherry 7 Days Specific Eliminating Freckle Whitening Cream	5,271 <sup>a</sup>
Bangladesh	Taiwan	Green Tea Whitening Anti-freckle Cream	5,068 <sup>a</sup>
Bangladesh	China, via Malaysia	Temulawak New Beauty White Cream (Night Cream)	1,884 <sup>a</sup>
Bangladesh	Pakistan	Hoor! Whitening Cream	1,083 <sup>a</sup>
Bangladesh	China	Jiaulihuic Hunsu Jioli Miraculous Day and Night Cream	711 <sup>a</sup>

**Note:**<sup>a</sup> Mercury content analyzed by Quality Assurance & Control Systems Laboratory (Greece) using Hydride Atomic Absorption Spectroscopy (HAAS)

<b>Thailand</b>	Thailand	Cleome White	8,300 <sup>b</sup>
<b>Thailand</b>	Thailand	O White Whitening Cream Premium Package	7,300 <sup>b</sup>
<b>Thailand</b>	Thailand	White Rose Whitening	6,500 <sup>b</sup>
<b>Thailand</b>		Whitening Pearl and Snow Lotus Cream	4,300 <sup>b</sup>
<b>Thailand</b>	South Korea	Whitening Ginseng and Pearl Cream	2,100 <sup>b</sup>

**Note:** <sup>b</sup> Mercury content analysed by Enthalpy Analytical Laboratories (California, USA) using Cold Vapor Atomic Absorption Spectroscopy (CVAAS).

### Some of the high mercury creams identified during our study



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#### Notes:

<sup>i</sup> Global Industry Analysts, Inc.

([https://www.strategyr.com/MarketResearch/Skin\\_Lighteners\\_Market\\_Trends.asp](https://www.strategyr.com/MarketResearch/Skin_Lighteners_Market_Trends.asp))

<sup>ii</sup> Minamata Convention

(<http://www.mercuryconvention.org/Convention/Text/tabid/3426/language/en-US/Default.aspx>)

<sup>iii</sup> Agency for Toxic Substances and Disease Registry,

Public Health Statement for Mercury (March 1999)

[www.atsdr.cdc.gov/PHS/PHS.asp?id=112&tid=24](http://www.atsdr.cdc.gov/PHS/PHS.asp?id=112&tid=24)