

Monitoring Mercury-added Products in the Caribbean Region

SKIN LIGHTENING CREAMS AND COSMETICS



Quick Notes

- The Minamata Convention on Mercury requires Parties to phase out the manufacture, import or export of skin lightening creams and cosmetics > 1 ppm Hg by 2020.
- Many countries, such as the US and those in the EU, are working toward mercury-free alternatives.
- Biodiversity Research Institute (BRI) partnered with BCRC-Caribbean to test skin lightening creams sold in the Caribbean for mercury, in order to monitor human exposure to the toxic element from the use of these products.

Mercury in Skin Lightening Creams and Cosmetics

Mercury (Hg) is an ingredient used in some skin lightening or anti-aging soaps and creams because mercury salts inhibit the formation of melanin, the pigment that gives human skin, hair, and eyes their color. Mercury is also added to some cosmetics, such as mascara, for its properties as a preservative, preventing the growth of bacteria and fungi. A wide range of mercury levels are found in these products, and the amount of mercury is rarely disclosed to the consumer.

What are the Risks to Human Health and the Environment?

According to the World Health Organization (WHO), the health effects from the use of these products may range from allergic reactions or skin irritation to kidney damage or neurotoxicity (harm to the nervous system).

In addition to human health, the environment is also at risk. Mercury from these products is eventually released into wastewater where it enters the environment and, under certain conditions, is absorbed into the food web, contaminating the seafood we eat.

Sampling Process: Skincare Products and Cosmetics

1 Participating countries provided skin lightening products for testing.



2 BRI analyzed products for mercury concentrations (our goal is to provide customs agents with the means to efficiently screen imported products for the presence of mercury.)

3 Participating countries received country-specific reports on products that may affect health.

Mercury Monitoring in the Caribbean Region

Monitoring human exposure to mercury is essential to identifying the potential risks to populations.

- As an add-on to the project “Development of Minamata Initial Assessment in the Caribbean (Antigua and Barbuda, Dominica, Grenada, Saint Vincent and the Grenadines)” (MIA Project), BRI, in partnership with the BCRC-Caribbean and the relevant ministries in the four (4) project countries, facilitated the sampling of skin lightening creams sold in the Caribbean.
- Forty (40) skin lightening creams were collected from the four (4) project countries and tested for mercury content at BRI’s facility.
- Crema Blanqueadora Whitening Cream was purchased in the Dominican Republic and was tested as part of a different study; it was not one of the forty (40) creams tested under the MIA Project.

Samples of skin lightening creams with elevated levels of mercury exceeding the 1 ppm threshold established by the Minamata Convention:

1. Crema Blanqueadora Whitening Cream: ~400 ppm Hg
2. Silken Deluxe Bleaching Cream: ~19,000 ppm Hg
3. Nadinola Vanishing Cream : ~4 ppm Hg



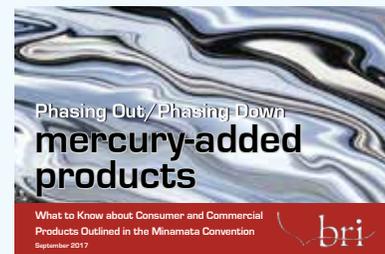
In addition, one cream had high concentrations of lead (Pb) and arsenic (As). It is important to note that these products are likely available for purchase in most countries in the Caribbean Region.

Benefits of Monitoring Activities

- Monitoring efforts build national capacities for complying with Article 4 of the Minamata Convention which requires Parties to prohibit the manufacture, import and export of certain mercury added products after 2020.
- Data was included in a global database on the mercury content in skin lightening creams and cosmetics. By participating in this effort, data from the Caribbean will help toward developing feasible solutions to eliminating mercury as an ingredient in these products.

BRI Science Communications

BRI’s publications help advance environmental awareness and inform decision makers. For example:



Phasing Out/Phasing Down Mercury-added Products: What to Know About Consumer and Commercial Products Outlined in the Minamata Convention. Updated 2018.

Available online: www.briloon.org/hgpubs

Additional Resources



Zero Mercury Working Group:
www.zeromercury.org



United Nations Environment:
www.unep.org

Related Web Links

Minamata Convention on Mercury:
www.mercuryconvention.org

United Nations Development Programme:
www.undp.org

United Nations Environment:
www.unep.org/chemicalsandwaste

United Nations Industrial Development Organization: www.unido.org

World Health Organization: www.who.int

Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean Region

www.bcrc-caribbean.org
Facebook: Basel Convention Regional Centre - Caribbean



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