

# UNEP Global Mercury Partnership

## Chlor-Alkali Area

*Partnership Area Lead:*

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### Issue

The mercury-cell process is one of three manufacturing processes used by the chlor-alkali sector to produce chlorine and caustic soda. Mercury-cell chlor-alkali production remains a significant use of mercury globally, and can be a significant source of mercury releases to the environment. Mercury-cell facilities which close or convert to non-mercury technologies require careful site management as well as management of any excess mercury.



**Mercury-cell chlor-alkali plant**

### Objective

The partnership area works to significantly minimize and where feasible eliminate global mercury releases to air, water, and land that may occur from chlor-alkali production facilities.

### Strategy

The partnership area provides economic, technical, and educational information to

chlor-alkali production facility partners, governments, and other stakeholders. It promotes commercially competitive and environmentally responsible solutions for eliminating mercury use in chlor-alkali production.

#### **Minamata Convention on Mercury**

##### **Article 5 and Annex B, Manufacturing processes in which mercury or mercury compounds are used**

*Phase out date of 2025 for mercury use in chlor-alkali production.*

##### **Article 3, Mercury Supply Sources and Trade**

*Paragraph 5(b): Take measures to ensure that, where the Party determines that excess mercury from the decommissioning of chlor-alkali facilities is available, such mercury is disposed of in accordance with the guidelines for environmentally sound management referred to in paragraph 3(a) of Article 11, using operations that do not lead to recovery, recycling, reclamation, direct re-use, or alternative uses.*

#### **Contribution to Implementation of the Minamata Convention**

The partnership area has dramatically improved the information base on this issue and will continue to contribute to the reduction in mercury use in this sector on a

global, regional and national basis in accordance with the Minamata Convention.

### **Outreach Activities**

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The chlor-alkali partnership area shares information on:

- appropriate procedures and methods to convert to non-mercury processes
- best practices to minimize releases of mercury during the conversion or closure process
- financing options to assist industry in addressing capital costs associated with conversion
- management of excess mercury generated by conversion, phase-out, and closure of mercury-cell facilities
- best practices for management of mercury-containing waste generated by chlor-alkali production facilities.

### **Featured Project**

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The World Chlorine Council reports annually to UNEP on mercury emissions and consumption in the chlor-alkali industry. This data covers about 85% of the world chlorine production capacity based on mercury.

The partnership also maintains a global inventory of mercury-cell chlor-alkali facilities in 2010 with assistance from the World Chlorine Council. This inventory provides information on chlorine capacity, locations, and any plans for conversion or closure for mercury-cell facilities around the world.

### **Future Work to be Carried out to Support Implementation of the Minamata Convention**

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The partnership area hopes to work with partner governments to establish effective approaches to meet Minamata Convention requirements for closure or conversion of

existing mercury-cell chlor-alkali facilities by 2025.

The partnership area hopes to expand the inventory to include information regarding excess mercury and mercury waste for facilities that close or convert, and obtain better information on and communications with those industries that are not World Chlorine Council members.

In addition, the chlor-alkali partnership area seeks to encourage the deployment of projects to address needs for retirement of large quantities of mercury from chlor-alkali facilities.

And, consistent with the partnership area's interest in ensuring environmentally sound management of existing, closing, or converting facilities, the partnership area will advance country-specific projects.

### **Collaboration with Other Partnership Areas and Relevant Stakeholders**

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The chlor-alkali partnership area will explore joint initiatives to leverage expertise in the Supply & Storage, Transport & Fate, and Waste partnership areas towards our objectives. This will include exploring additional inventory information that would assist in identifying needs for the sound management of excess mercury and mercury waste from mercury-cell chlor-alkali facilities that have closed or converted or plan to close or convert; and information exchange on technologies and management practices for waste and excess management.

### **For More Information**

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Visit our web site:

<http://www.unep.org/chemicalsandwaste/Mercury/GlobalMercuryPartnership>

Or contact the partnership area lead:  
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