

# Reducing Mercury Emissions with Bromine



The International Bromine Council

THE WORLD HEALTH ORGANISATION CONSIDERS **MERCURY** A TOP **10** CHEMICAL... OF MAJOR PUBLIC HEALTH CONCERN<sup>1</sup>



## The Minamata Convention on Mercury

- ✓ Is a global acknowledgement of the adverse environmental and health impacts of mercury
- ✓ Is a United Nations Treaty that requires Parties to control and reduce mercury emissions from coal-fired power plants and apply Best Available Techniques and Best Environmental Practices<sup>2</sup>



**COAL BURNING** one of the main sources of man-made **MERCURY EMISSIONS**<sup>3</sup> and despite decarbonisation efforts, over **40%** of the **WORLD'S ELECTRICITY** is generated by coal power.<sup>4</sup>



## Bromine-based technologies have been proven to reduce mercury emissions by over 90%



Bromine can help meet the world's energy needs in a more sustainable way through reduced mercury emissions



The use of Bromine is part of the solution to meeting the goals of the Minamata Convention

## How does it work?

Bromine-based compounds can be added at different stages of the combustion process to help capture mercury



Bromide additives convert elemental mercury (Hg<sub>0</sub>) to its oxidized form...



...which can then be captured more easily by emission control equipment<sup>5</sup>



When coal is burnt, mercury can be released in three forms



<sup>1</sup> WHO Mercury & health fact sheet, <http://www.who.int/news-room/fact-sheets/detail/mercury-and-health>

<sup>2</sup> Article 8 of the Convention requires signatories to use BAT and BEP to reduce emissions from new installations

<sup>3</sup> 2013 UNEP Global Mercury Assessment

<sup>4</sup> International Energy Agency, [www.iea.org](http://www.iea.org)

<sup>5</sup> [http://eippcb.jrc.ec.europa.eu/reference/BREF/LCP/JRC107769\\_LCPBref\\_2017.pdf](http://eippcb.jrc.ec.europa.eu/reference/BREF/LCP/JRC107769_LCPBref_2017.pdf)