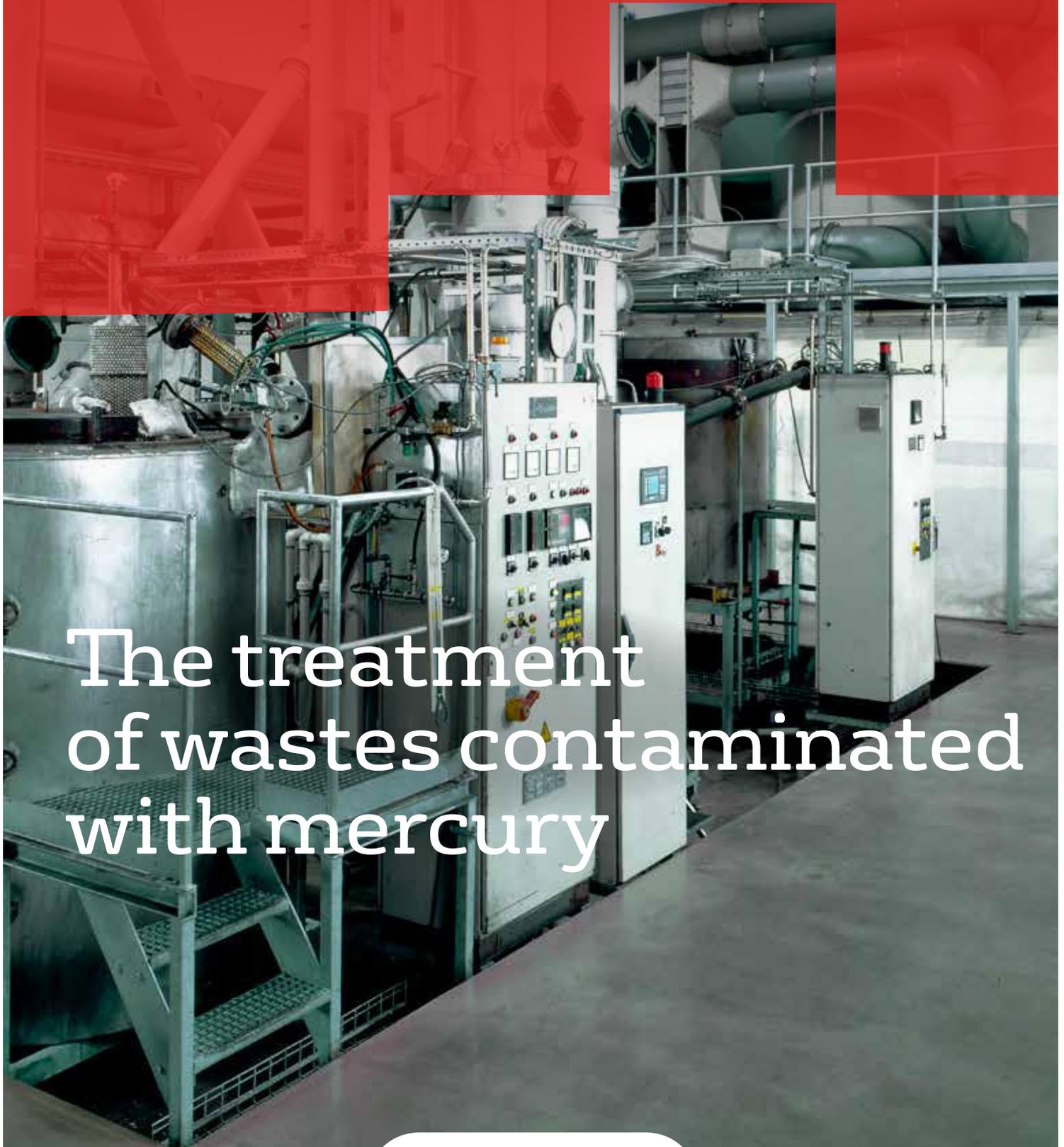




BATREC

Swiss quality recycling solutions



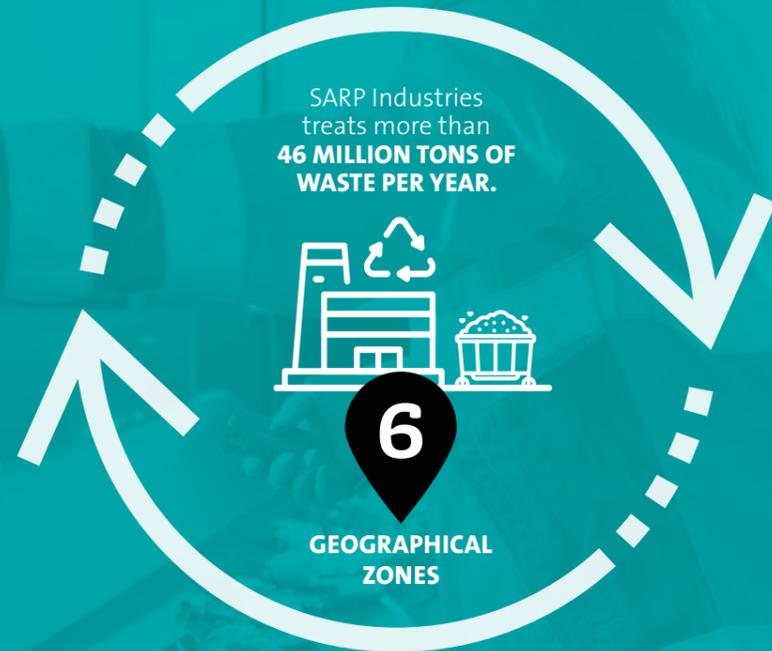
The treatment of wastes contaminated with mercury

BATREC, part of SARPI-VEOLIA

BATREC is a leading specialist in the treatment and recycling of hazardous wastes. We are part of SARP Industries, a member of the VEOLIA group, the European leader in our field.

BATREC sets a benchmark in the world of treating difficult, hazardous wastes, particularly those containing mercury.

We treat and recycle batteries, various mercury contaminated wastes, liquid elemental mercury and absorbents & catalysts containing mercury for clients globally. We also have a world class activated carbon reactivation plant.



Wimmis



1991

FOUNDATION



ISO 9001
ISO 14001
ISO 45001

CERTIFICATIONS



Liquid Mercury Stabilisation
Activated Carbon reactivation
Mercury wastes treatment
Mercury absorbent recycling
Battery recycling

5 CORE SPECIALITIES

The treatment of wastes contaminated with mercury



One of BATREC's core expertises

Mercury is present in many industries including oil & gas and non-ferrous metal industry (zinc, etc.). We also find mercury **in everyday items** including lamps, thermometers and button cell batteries.

In order to protect people and the environment, waste containing mercury must be treated in an environmentally friendly and sustainable way and in compliance with international regulations.

BATREC contributes to the progressive global removal of mercury by treating all types of mercury waste, rendering them safe in an environmentally friendly and sound way.

BATREC, a pioneer in mercury waste treatment

Batteries, thermometers, activated carbon, soil and sludge... Whatever the type of mercury containing waste, BATREC has an environmentally sustainable solution: **THE RECOVERY OF METALLIC MERCURY BY DISTILLATION.**



THE MINAMATA CONVENTION is an international treaty developed with the backing of the United Nations Environment Program to protect human health and the environment from the harmful effects of mercury.

- 150 countries agreed on:
- the reduction and phase out of mercury use in a number of products and processes.
 - implementing control measures on environmental emissions.



Distillation Process

Mercury (Hg) is isolated and distilled in several steps. Following treatment, the recovered mercury is usually stabilised. However, in certain cases it may be recycled for reuse in approved applications in accordance with the Minamata Convention.

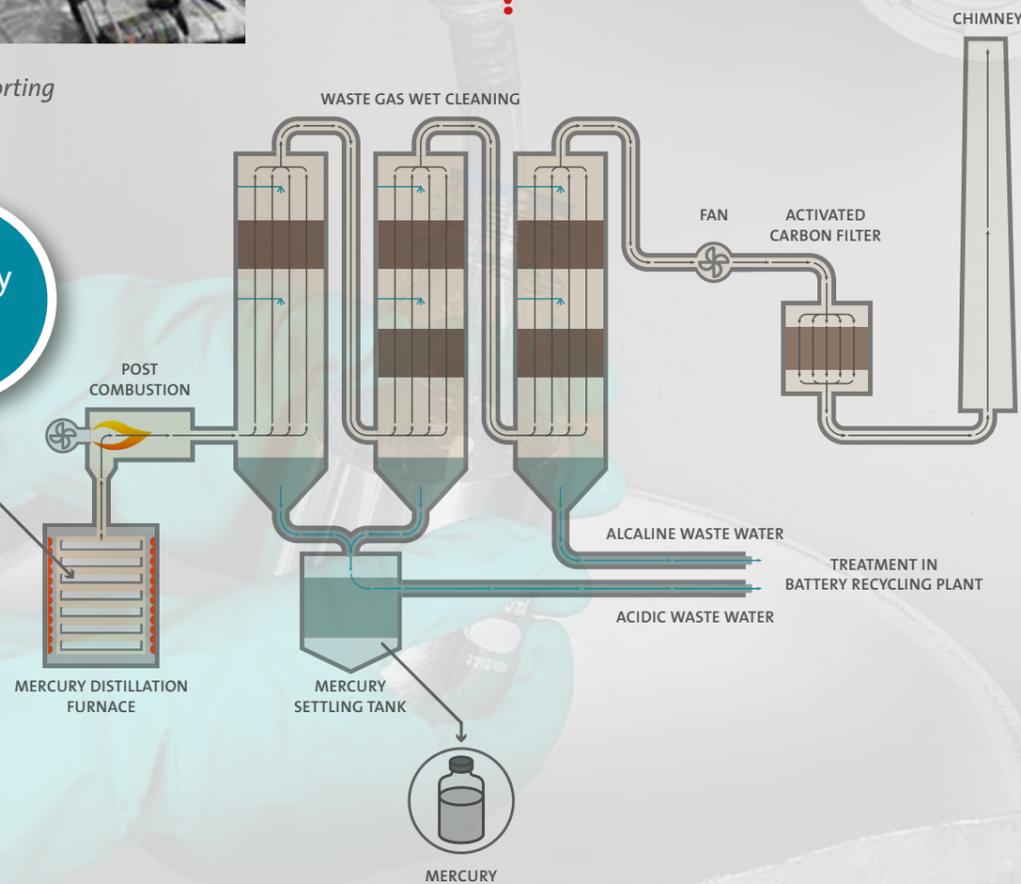


Mercury waste sorting

PROCESS CHARACTERISTICS

- ✔ Treatment capacity: 500 tons of waste per year
- ✔ Mercury is recovered in a purity of 99.9995%.

Mercury waste



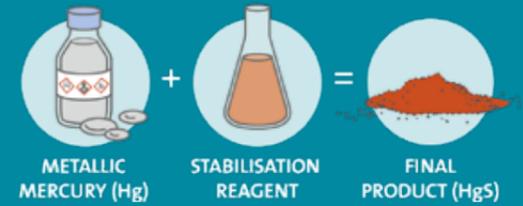
Hg = mercury

Stabilisation Process

BATREC has developed a treatment process to stabilise liquid mercury into a non-toxic compound, mercury sulphide (HgS) which is safely disposed of in a salt mine.

Treatment capacity: 1'200 TONS per year

STABILISATION PROCESS

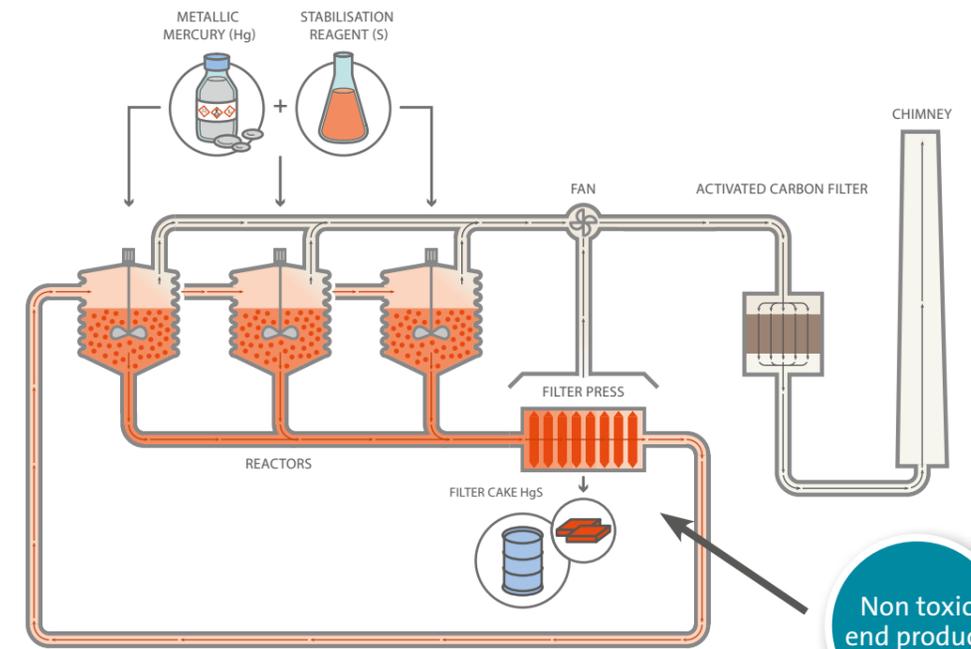


PROCESS CHARACTERISTICS

- ✔ Wet process not prone to gaseous mercury emissions
- ✔ Simple reactants
- ✔ Stabilisation solution is regenerated and reused (closed loop)



Reactors



Recycling

Under strict conditions a small amount of recovered mercury is recycled to a purity of over 99.9995%.

The high purity mercury can be reused in specific applications authorised by Swiss law under principles set out in the Minamata Convention.

For example, the Minamata Convention allows the use of mercury for R&D and analysis purposes (porosimetry, polarography, etc.).

BATREC's main concern is to provide a mercury treatment solution that guarantees a closed recycling loop.



Packaged liquid Hg from BATREC

Safe and secure mercury management

Safe long-term storage to protect the environment

Following stabilisation, the mercury sulphide is secured into **drums** and sent for final disposal in a salt mine in Germany.

Following strict acceptance criteria the HgS is deposited at depths of 500 to 800 metres where it is isolated by the natural strata (salt, clay...) and man-made barriers (brick walls).



Full traceability

-  Full transparency for the customer and authorities.
-  Independent sampling and analysis, administrative expertise and mass balancing reporting...
-  Turnkey service from waste collection until the final treatment.



A COMPLETE PACKAGE

supporting you throughout the mercury treatment process

1



You have **mercury containing waste** for disposal.



BATREC can provide you with **certified packing** and prepare the **transfrontier shipment dossier** with you.



BATREC can **organise the transport** from your site to our treatment plant in Switzerland.

2



BATREC treats the **mercury waste**.



BATREC can **recover liquid mercury** for stabilisation or recycling.



Following the stabilisation, BATREC undertakes the **sampling and analysis** of the mercury sulphide.

3



BATREC transfers the mercury sulphide into **certified packaging**.



BATREC transports the mercury sulphide to the salt mine for **permanent storage**.



BATREC provides you with a **complete traceability report** for the waste received.

**For more information,
don't hesitate to contact our team**



www.batrec.ch



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**Treat your wastes contaminated
with mercury at BATREC
whilst respecting the environment and in strict
compliance with international regulations.**