

## Product Safety Summary of Barium chloride

### General statement

This Product Safety Summary is intended to provide a general overview of the chemical substance. It constitutes basic information and is not intended to provide emergency response information, medical information, treatment information or otherwise in-depth safety and health information, which can only be found in the relevant Safety Data Sheet (SDS) or the Material Safety Data Sheet (MSDS), as the case may be.

### Overall summary

Barium chloride ( $\text{BaCl}_2$ ) is not sold as consumer good or commodity. The substance is used in waste water treatment, and the production of other barium salts. It is a white odorless, crystalline powder.

Barium chloride is toxic to man. The substance is an irritant to eye but not to skin or the respiratory tract.

The toxicity of barium chloride to the environment is low.

### Chemical identity

**Chemical name:** Barium chloride

**Common name:** Barium chloride

**EC number:** 233-788-1

**Molecular weight:** 208 g/mol Anhydrous, 244 g/mol Dihydrate

### Uses

Barium chloride is used in waste water treatment, and the production of other barium salts.

### Physical properties

Barium chloride is a white odorless, crystalline powder. It has high water solubility ( $\geq 263$  g/liter) and is not volatile. It has no flammable or explosive properties.

### Health effects

After entering the body, barium chloride will dissociate into barium and chloride ions. Barium is not metabolized in the body and is excreted primarily in feces and urine. Chloride will be excreted via the urine.

Barium chloride is toxic after single oral administration and harmful after exposure via inhalation.

Barium chloride is irritating to eye but not to the skin or respiratory tract.

Barium chloride does not cause skin allergy.

After repeated oral exposure to barium chloride, toxic effects in the kidneys were observed. Barium chloride does not cause genetic effects or cancer.

### Environmental fate and impact

When released in the environment, barium chloride will dissociate into barium and chloride ions. The chloride ions will remain in solution. The barium ions will react with naturally present sulfate to form barium sulfate. The insoluble barium sulfate will precipitate and deposit on the sediment.

Barium chloride has a low potential for bioaccumulation and the acute and chronic toxicity towards aquatic organisms is low and therefore no environmental classification for the aquatic compartment is required for barium chloride.

### Risk of human exposure

In view of the specific uses of barium chloride, exposure of humans to the substance is negligible: manufacturing and industrial use is performed in dedicated facilities by a trained workforce.



## Risk of environmental exposure

Considering the manufacture and use in industrial applications, barium chloride may be released in the environment mainly via the waste water. In case of emission to surface water, most barium chloride will precipitate to soil or sediment due to the formation of the insoluble barium sulfate.

Barium chloride has a low potential for bioaccumulation and has no effect on aquatic organisms. For this reason no adverse effect on the environment is expected.

## Classification according to E.U. Regulation EC 1272/2008 ("CLP")

Acute oral toxicity – Category 3.

Acute inhalation toxicity – Category 4.

Eye irritation – Category 2.

H301: Toxic if swallowed.

H332: Harmful if inhaled.

H319: Causes serious eye irritation.

Signal Word: Danger.

Hazard pictogram:



## More information

If more information about the safe use of barium chloride is required, please consult our website: [click here.](#)

[http://www.solvaychemicals.com/EN/products/%20Barium\\_Strontium/BaSr.aspx](http://www.solvaychemicals.com/EN/products/%20Barium_Strontium/BaSr.aspx)

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