

SAFETY DATA SHEET

Revision Date 25.12.2018

1. Product name and details of the supplier of the safety datasheet

Product name :Thallium(I) bromide

Company : Chikamochi Pure Chemical Co. , Ltd.
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2. HAZARDS IDENTIFICATION

【Classification according to Regulation (EU) No 1272/2008】

Acute toxicity, Oral (Category 2), H300

Acute toxicity, Inhalation (Category 2), H330

Specific target organ toxicity – repeated exposure (Category 2), H373

Chronic aquatic toxicity (Category 2), H411

【Label elements】

Pictogram or Symbol



Signal word : Danger

Hazard statement(s)

H300 + H330

Fatal if swallowed or if inhaled.

H373

May cause damage to organs (Systemic toxicity) through prolonged or repeated exposure.

H411

Toxic to aquatic life with long lasting effects.

Precautionary statement(s)

Prevention

| | |
|-----------|--|
| P260 | Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. |
| P264 | Wash hands thoroughly after handling. |
| P273 | Avoid release to the environment. |
| P284 | Wear respiratory protection. |
| P301+P310 | IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Immediately call a POISON CENTER/doctor. |

Supplemental Hazard Statements none

【Other hazards】

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. Composition/information on ingredients

【Substances】

| | |
|------------------|----------------|
| Formula | : BrTI |
| Molecular weight | : 284.29 g/mol |
| CAS No. | : 7789-40-4 |
| EC-No. | : 232-163-0 |
| Index-No. | : 081-002-00-9 |

| Component | Classification | Concentration |
|---|--|---------------|
| Thallium bromide | | |
| CAS-No. 7789-40-4 EC-No. 232-163-0 Index-No. 081-002-00-9 | Acute Tox.2; STOT RE 2; Aquatic Chronic 2; H300, H330, H373,H411 | ≥ 99% |

4. Description of first aid measures

【General advice】

Consult a physician. Show this safety data sheet to the doctor in attendance.

【If inhaled】

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

Consult a physician.

【In case of skin contact】

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

【In case of eye contact】

Flush eyes with water as a precaution.

【If swallowed】

Never give anything by mouth to an unconscious person. Rinse mouth with water.

Consult a physician.

【Most important symptoms and effects, both acute and delayed】

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

【Indication of any immediate medical attention and special treatment needed】

No data available

5. Firefighting measures

【Suitable extinguishing media】

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

【Special hazards arising from the substance or mixture】

Hydrogen bromide gas, thallium oxides

【Advice for firefighters】

Wear self-contained breathing apparatus for firefighting if necessary.

【Further information】

No data available

6. Accidental release measures

【Personal precautions, protective equipment and emergency procedures】

Wear respiratory protection. Avoid dust formation. Avoid breathing Vapours, mist or gas.

Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

【Environmental precautions】

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

【Methods and materials for containment and cleaning up】

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

【Reference to other sections】

For disposal see section 13.

7. Handling and storage

【Precautions for safe handling】

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed.

【Conditions for safe storage, including any incompatibilities】

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510): Combustible solids, toxic

【Specific end use(s)】

Apart from the uses mentioned in section 1 no other specific uses are stipulated.

8. Exposure controls/personal protection

【Exposure controls】

Appropriate engineering controls

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

【Personal protective equipment】

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH(US) or EN166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100(US) or type P3(EN 143) respirator cartridge as a backup to engineering controls. If the respirator is the sole means of protection, Use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH(US) or CEN(EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

9. Physical and chemical properties

Appearance

Form: Powder

Colour: yellow

Odour

:No data available

| | |
|--|------------------------------------|
| Odour Threshold | :No data available |
| pH | :No data available |
| Melting point/freezing point | :Melting point/range: >300°C- lit. |
| Initial boiling point and boiling range | :No data available |
| Flash point | :Not applicable |
| Evaporation rate | :No data available |
| Flammability (solid, gas) | : No data available |
| Upper/lower flammability or explosive limits | : No data available |
| Vapour pressure | : No data available |
| Vapour density | : No data available |
| Relative density | : 7.5 g/cm ³ at 25°C |
| Water solubility | : No data available |
| Partition coefficient: n-octano/water | : No data available |
| Auto-ignition temperature | : No data available |
| Decomposition temperature | : No data available |
| Viscosity | : No data available |

1 0 . **Stability and reactivity**

【Reactivity】

No data available

【Chemical stability】

Stable under recommended storage conditions.

【Possibility of hazardous reactions】

No data available

【Conditions to avoid】

Avoid moisture.

【Incompatible materials】

Strong oxidizing agents

【Hazardous decomposition products】

Hazardous decomposition products formed under fire conditions.-Hydrogen bromide gas, thallium oxides.

1 1 . **Information on toxicological effects**

【Acute toxicity】

No data available

【Skin corrosion/irritation】

No data available

【Serious eye damage/eye irritation】

No data available

【Respiratory or skin sensitisation】

No data available

【Germ cell mutagenicity】

No data available

【Carcinogenicity】

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

【Reproductive toxicity】

No data available

【Specific target organ toxicity – single exposure】

No data available

【Specific target organ toxicity – repeated exposure】

May cause damage to organs through prolonged or repeated exposure.

【Aspiration hazard】

No data available

【Additional Information】

RTECS: Not available

Vomiting, Diarrhoea, Abdominal pain, Lung irritation, chest pain, pulmonary edema, The most characteristic symptom of thallium exposure is alopecia (loss of impairment of nail growth often resulting in the appearance of crescent-s Other symptoms in acute poisoning relate chiefly to the gastrointestinal system. Acute poisoning results in swelling of the feet and legs, arthral the hands and feet, mental confusion, polyneuritis with severe pain in th angina-like pains, nephritis, wasting and weakness, and lymphocytosis and peripheral nervous system abnormalities may persist including ataxia, tredisorders, memory loss, and psychoses may develop., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (Thallium(I)bromide)

1 2 . Ecological information

【Toxicity】

No data available

【Persistence and degradability】

No data available

【Bioaccumulative potential】

No data available

【Mobility in soil】

No data available

【Results of PBT and vPvB assessment】

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

【Other adverse effects】

Toxic to aquatic life with long lasting effects.

1 3 . Disposal considerations**【Waste treatment methods】****Product**

Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

1 4 . Transport information**【UN number】**

ADR/RID: 1707

IMDG: 1707

IATA-DGR: 1707

【UN proper shipping name】

ADR/RID: THALLIUM COMPOUND, N.O.S. (Thallium(I) bromide)

IMDG: THALLIUM COMPOUND, N.O.S. (Thallium(I) bromide)

IATA-DGR: Thallium compound, n.o.s. (Thallium(I) bromide)

【Transport hazard class(es)】

ADR/RID: 6.1

IMDG: 6.1

IATA: 6.1

【Packaging group】

ADR/RID: II

IMDG: II

IATA: II

【Environmental hazards】

ADR/RID: no

IMDG Marine pollutant: yes

IATA: no

【Special precautions for user】

No data available

1 5 . Regulatory information**【Safety, health and environmental regulations/legislation specific for the substance or mixture】**

This safety datasheet complies with the requirements of Regulation (EU) No. 1907/2006.

【Chemical safety assessment】

For this product a chemical safety assessment was not carried out

1 6 . Other information

【Full text of H-Statements referred to under sections 2 and 3】

| | |
|------|--|
| H300 | Fatal if swallowed. |
| H330 | Fatal if inhaled. |
| H373 | May cause damage to organs through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects. |

【Further information】

Information contained in this material safety data sheet is offered without charge for use by technically qualified personnel at their discretion and risk. All statement, technical information and recommendations contained herein are based on tests and data which we believe to be reliable, but the accuracy or completeness thereof is not guaranteed no warranty of any kind is made with respect thereto.

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