# SAFETY DATA SHEET

**Australian statement of hazardous nature :** Classified as hazardous according to criteria of Safe Work Australia

## Section 1 - Identification

| | |
|---|---|
| **Product Name** | **Iodine bromide** |
| **CAS No** | 7789-33-5 |
| **Synonyms** | Iodine Bromide. |

| | |
|---|---|
| **Product Code** | **I/0510/48, I/0510** |
| **Address** | ThermoFisher Scientific Australia Pty Ltd<br>5 Caribbean Drive, Scoresby<br>VICTORIA 3179, Australia |
| **Emergency Tel.** | **CHEMTREC®**<br>**03 9757 4559 or +613 9757 4559** |
| **Telephone / Fax Numbers** | Tel: 1300 735 292<br>Fax: 1800 067 639 |
| **E-mail address** | ANZinfo@thermofisher.com |

| | |
|---|---|
| **Recommended Use** | Laboratory chemicals. |
| **Uses advised against** | This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list. This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction. This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern. |

## Section 2 - Hazard(s) Identification

**Classification under Safe Work Australia**

Classified as hazardous according to criteria of Safe Work Australia

**Physical hazards**
No hazards identified

**Health hazards**

| | |
|---|---|
| Skin Corrosion/Irritation | Category 1 B |
| Serious Eye Damage/Eye Irritation | Category 1 |
| Specific target organ toxicity - (single exposure) | Category 3 |

**Environmental hazards**
No hazards identified

**Label Elements**

Exclamation Mark

Corrosion

**Signal Word** **Danger**

**Hazard Statements**
H314 - Causes severe skin burns and eye damage
H335 - May cause respiratory irritation

**Precautionary Statements**
P264 - Wash face, hands and any exposed skin thoroughly after handling
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P310 - Immediately call a POISON CENTER or doctor
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P363 - Wash contaminated clothing before reuse
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P501 - Dispose of contents/ container to an approved waste disposal plant

**Other information**
No information available

# Section 3 - Composition and Information on Ingredients

| Component | CAS No | Weight % |
|---|---|---|
| Iodine bromide (IBr) | 7789-33-5 | >95 |

# Section 4 - First Aid Measures

**Inhalation** Remove to fresh air. If not breathing, give artificial respiration. Call a physician or poison control center immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

**Ingestion** Immediate medical attention is required. Do NOT induce vomiting. Drink plenty of water. Never give anything by mouth to an unconscious person.

**Skin Contact** Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Call a physician immediately.

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required. Keep eye wide open while rinsing.

**General Advice** Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

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| **Self-Protection of the First Aider** | Use personal protective equipment as required. Avoid contact with skin, eyes or clothing. |
| **First Aid Facilities** | Eyewash, safety shower and washroom. |
| **Most important symptoms and effects** | Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation |
| **Notes to Physician** | Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure. |

# Section 5 - Fire Fighting Measures

**Suitable Extinguishing Media**
$CO_2$, dry chemical, dry sand, alcohol-resistant foam.

**Extinguishing media which must not be used for safety reasons**
No information available.

**Hazardous Decomposition Products**
Hydrogen iodide, Bromine.

**Decomposition Temperature**
116 °C

**Specific Hazards Arising from the Chemical**
The product causes burns of eyes, skin and mucous membranes.

**Special protective equipment and precautions for fire fighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

# Section 6 - Accidental Release Measures

**Emergency procedures**
Use personal protective equipment as required. Evacuate personnel to safe areas. Avoid contact with skin, eyes or clothing. Refer to protective measures listed in Sections 7 and 8

**Environmental Precautions**
Should not be released into the environment. Do not allow material to contaminate ground water system.

**Methods for Containment and Clean Up**

**Clean-up methods - small spillage**
Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

**Clean-up methods - large spillage**
Typically only supplied is small quantiites as packaged goods.
If extremely toxic or used in larger quantities ensure a spillage action plan is in place. Evacuate area. Control the source and/or contain the spill if safe and able to do so. Use temporary diking, sand bags, dry sand, earth or proprietary booms/absorbent pads if available. Obtain advice on containment, neutralisation and clean-up from local emergency responders.

**Reference to Other Sections**
Refer to protective measures listed in Sections 8 and 13.

# Section 7 - Handling and Storage

**Precautions for Safe Handling**
Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not breathe dust. Do not ingest. If swallowed then seek immediate medical assistance.

**Conditions for Safe Storage, Including any Incompatibilities**
Store under an inert atmosphere. Keep at temperatures between 2° and 8 °C. Corrosives area. Keep containers tightly closed in a dry, cool and well-ventilated place.

AS/NZS 2243.10:2004, Safety in laboratories - Storage of chemicals

# Section 8 - Exposure Controls and Personal Protection

**Exposure limits**
The product does not contain any hazardous materials with occupational exposure limits established.

**Biological limit values**
This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies

**Exposure Controls**
**Engineering Measures**
Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

**Personal protective equipment**

| | |
|---|---|
| **Eye Protection** | Goggles (Australian/New Zealand Standard AS/NZS 1337 - Eye protectors for Industrial applications) |
| **Hand Protection** | Protective gloves |

| Glove material | Breakthrough time | Glove thickness | AUS/NZ Standard | Glove comments |
|---|---|---|---|---|
| Natural rubber<br>Nitrile rubber<br>Neoprene<br>PVC | See manufacturers recommendations | - | AS/NZS 2161 | (minimum requirement) |

Inspect gloves before use.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)
Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.
Remove gloves with care avoiding skin contamination.

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| **Skin and body protection** | Long sleeved clothing |
| **Repiratory Protection** | Use an AS/NZS 1716 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained in line with AS/NZS 1715 on the use and maintenance of repiratory protective devices |
| **Recommended Filter type:** | Particulates filter conforming to EN 143 (or AUS/NZ equivalent) |
| **Recommended half mask:-** | Particle filtering: EN149:2001 (or AUS/NZ equivalent)<br>When RPE is used a face piece Fit Test should be conducted |
| **Hygiene Measures** | When using do not eat, drink or smoke. Remove and wash contaminated clothing and gloves, including the inside, before re-use. |
| **Environmental exposure controls** | No information available. |

# Section 9 - Physical and Chemical Properties

**Information on basic physical and chemical properties**

| | | |
|---|---|---|
| **Appearance** | Dark grey | |
| **Physical State** | Solid | |
| **Odor** | Odorless | |
| **Odor Threshold** | No data available | |
| **pH** | No information available | |
| **Melting Point/Range** | 42 - 50 °C / 107.6 - 122 °F | |
| **Softening Point** | No data available | |
| **Boiling Point/Range** | 116 °C / 240.8 °F | |
| **Flash Point** | No information available | **Method -** No information available |
| **Evaporation Rate** | Not applicable | Solid |
| **Flammability (solid,gas)** | No information available | |
| **Explosion Limits** | No data available | |
| **Vapor Pressure** | No data available | |
| **Vapor Density** | Not applicable | Solid |
| **Specific Gravity / Density** | 4.410 | |
| **Bulk Density** | No data available | |
| **Water Solubility** | Soluble in water | |
| **Solubility in other solvents** | No information available | |
| **Partition Coefficient (n-octanol/water)** | | |
| **Autoignition Temperature** | No data available | |
| **Decomposition Temperature** | 116 °C | |
| **Viscosity** | Not applicable | Solid |
| **Explosive Properties** | No information available | |
| **Oxidizing Properties** | No information available | |

**Other information**

| | |
|---|---|
| **Molecular Formula** | Br I |
| **Molecular Weight** | 206.81 |

# Section 10 - Stability and Reactivity

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|---|---|
| **Reactivity** | None known, based on information available |
| **Stability** | Light sensitive. Moisture sensitive. |
| **Conditions to Avoid** | Incompatible products, Excess heat, Exposure to air, Exposure to light, Exposure to moisture, Avoid dust formation. |
| **Incompatible Materials** | Alcohols, Strong oxidizing agents, Strong reducing agents, Strong acids, Strong bases. |
| **Hazardous Decomposition Products** | Hydrogen iodide. Bromine. |
| **Hazardous Polymerization** | No information available. |

# Section 11 - Toxicological Information

**Information on Toxicological Effects**

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|---|---|
| **Product Information** | No acute toxicity information is available for this product |

| | |
|---|---|
| **(a) acute toxicity;** | |
| **Oral** | No data available |
| **Dermal** | No data available |
| **Inhalation** | No data available |
| **(b) skin corrosion/irritation;** | Category 1 B |
| **(c) serious eye damage/irritation;** | Category 1 |
| **(d) respiratory or skin sensitization;** | |
| **Respiratory** | No data available |
| **Skin** | No data available |
| **(e) germ cell mutagenicity;** | No data available |
| **(f) carcinogenicity;** | No data available |
| | There are no known carcinogenic chemicals in this product |
| **(g) reproductive toxicity;** | No data available |
| **(h) STOT-single exposure;** | Category 3 |
| **Results / Target organs** | Respiratory system |
| **(i) STOT-repeated exposure;** | No data available |
| **Target Organs** | No information available. |
| **(j) aspiration hazard;** | Not applicable<br>Solid |
| **Symptoms / effects,both acute and delayed** | Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation |

# Section 12 - Ecological Information

| | |
|---|---|
| **Ecotoxicity effects** | Do not empty into drains. |
| **Persistence and Degradability** | |
| **Persistence** | Soluble in water, Persistence is unlikely, based on information available. |
| **Degradability** | Not relevant for inorganic substances. |
| **Bioaccumulative Potential** | Bioaccumulation is unlikely |
| **Mobility** | The product is water soluble, and may spread in water systems. Will likely be mobile in the environment due to its water solubility Highly mobile in soils |
| **Endocrine Disruptor Information** | This product does not contain any known or suspected endocrine disruptors |
| **Persistent Organic Pollutant** | This product does not contain any known or suspected substance |
| **Ozone Depletion Potential** | This product does not contain any known or suspected substance |

# Section 13 - Disposal Considerations

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|---|---|
| **Waste from Residues/Unused Products** | Do not allow into drains or watercourses or dispose of where ground or surface waters may be affected. Wastes, including emptied containers, are controlled wastes and should be disposed of in accordance with all federal, E.P.A., state and local regulations. Assure conformity with all applicable regulations. |

| | |
|---|---|
| **Contaminated Packaging** | Do not reuse empty containers. Dispose of this container to hazardous or special waste collection point. |
| **Other Information** | Chemical wastes should be disposed through a licensed commercial waste collection service. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Do not flush to sewer. Large amounts will affect pH and harm aquatic organisms. |

# Section 14 - Transport Information

**IMDG/IMO**

| | |
|---|---|
| **UN-No** | UN3260 |
| **Proper Shipping Name** | Corrosive solid, acidic, inorganic, n.o.s. |
| **Technical Shipping Name** | Iodine bromide |
| **Hazard Class** | 8 |
| **Packing Group** | II |

**ADG**

| | |
|---|---|
| **UN-No** | UN3260 |
| **Proper Shipping Name** | Corrosive solid, acidic, inorganic, n.o.s. |
| **Technical Shipping Name** | Iodine bromide |
| **Hazard Class** | 8 |
| **Packing Group** | II |

**IATA**

| | |
|---|---|
| **UN-No** | UN3260 |
| **Proper Shipping Name** | Corrosive solid, acidic, inorganic, n.o.s. |
| **Technical Shipping Name** | Iodine bromide |
| **Hazard Class** | 8 |
| **Packing Group** | II |

| | |
|---|---|
| **Environmental hazards** | No hazards identified |
| **Special Precautions** | No special precautions required |
| **Additional information** | None known |

# Section 15 - Regulatory Information

**Safety, health and environmental regulations/legislation specific for the substance or mixture**

**National Regulations** **Australia**

See section 8 for national exposure control parameters.

**Standard for the Uniform Scheduling of Medicines and Poisons**
Classified as a scheduled poison according to the Standard for Uniform Scheduling of Medicines and Poisons.

| Component | Standard for the Uniform Scheduling of Medicines and Poisons |
|---|---|
| Iodine bromide (IBr) - 7789-33-5 | Schedule 4 listed - for therapeutic use except when separately specified in these Schedules |

**Australian Industrial Chemicals Introduction Scheme (AICIS)**

| Component | Australian Industrial | Additional information |
|---|---|---|

| | Chemicals Introduction Scheme (AICIS) | |
|---|---|---|
| Iodine bromide (IBr) - 7789-33-5 | Present | - |

**Australian - Illicit Drug Precursors/Reagents Substance List**
This product does not contain any substance(s) on the Illicit Drug Precursors/Reagents list.

**Chemicals of Security Concern**
This product does not contain any substance(s) listed on the voluntary National Code of Practice for Chemicals of Security Concern

**National pollutant inventory** Not applicable

**Prohibition or notification/licensing requirements**
Shown below are details of specific prohibition/notifications or licencing requirements when they apply.

This product does not contain any substance(s) subject to Prohibition, Authorization or Restriction.

**International Inventories**

| Component | AICS | NZIoC | EINECS | ELINCS | TSCA | DSL | NDSL | PICCS | ENCS | ISHL | IECSC | KECL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Iodine bromide (IBr) | X | X | 232-159-9 | - | X | - | X | X | X | X | X | KE-21024 |

**Legend:** X - Listed. '-' - Not Listed. **KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

**International Regulations**

**Ozone Depletion Potential** This product does not contain any known or suspected substance

**Persistent Organic Pollutant** This product does not contain any known or suspected substance

**Rotterdam Convention (PIC)** Not applicable

**Basel convention on the control of transboundary movements of hazardous wastes and their dispoal**
Not applicable.

| Component | CAS No | OECD HPV | Restriction of Hazardous Substances (RoHS) | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|---|---|---|---|---|---|
| Iodine bromide (IBr) | 7789-33-5 | Not applicable | Not applicable | Not applicable | Not applicable |

**Authorisation/Restrictions according to EU REACH** Not applicable

# Section 16 - Other Information

**Legend**

**AICS** - Australian Inventory of Chemical Substances
**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List
**IECSC** - Chinese Inventory of Existing Chemical Substances
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances
**TWA** - Time Weighted Average
**IARC** - International Agency for Research on Cancer
**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association
**MARPOL** - International Convention for the Prevention of Pollution from Ships
**NZS 5433:2012** - Transport of Dangerous Goods on Land
**LD50** - Lethal Dose 50%
**EC50** - Effective Concentration 50%
**WEL** - Workplace Exposure Limit
**DNEL** - Derived No Effect Level
**POW** - Partition coefficient Octanol:Water
**vPvB** - very Persistent, very Bioaccumulative
**VOC** - (Volatile Organic Compound)
**NZIoC** - New Zealand Inventory of Chemicals
**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
**ENCS** - Japanese Existing and New Chemical Substances
**KECL** - Korean Existing and Evaluated Chemical Substances
**CAS** - Chemical Abstracts Service
**ACGIH** - American Conference of Governmental Industrial Hygienists
Predicted No Effect Concentration (PNEC)
**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code
**ADG** Australian Code for the Transport of Dangerous Goods by Road and Rail
**OECD** - Organisation for Economic Co-operation and Development
**LC50** - Lethal Concentration 50%
**ATE** - Acute Toxicity Estimate
**RPE** - Respiratory Protective Equipment
**NOEC** - No Observed Effect Concentration
**BCF** - Bioconcentration factor
**PBT** - Persistent, Bioaccumulative, Toxic

**Key literature references and sources for data**
https://echa.europa.eu/information-on-chemicals
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**Training Advice**
Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.
Use of personal protective equipment, covering appropriate selection, compatibility, breakthrough thresholds, care, maintenance, fit and standards.
First aid for chemical exposure, including the use of eye wash and safety showers.

| | |
|---|---|
| **Revision Date** | 18-Nov-2022 |
| **Revision Summary** | Not applicable. |

**This Safety Data Sheet (SDS) is prepared in accordance to and complies with the requirements of Safe Work Australia - Work Health and Safety Regulations (WHS Regulations).**

**Disclaimer**

**The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text**

# End of Safety Data Sheet