



MATERIAL SAFETY DATA SHEET
Mercury (II) Iodide

Section 1 - Chemical Product and Company Identification

MSDS Name: Mercury (II) Iodide
Catalog Numbers: M/2950/46, M/2950/48
Synonyms: Mercuric Iodide; Mercury Diiodide; Red Mercuric Iodide.
Company Identification: Fisher Scientific UK
 Bishop Meadow Road, Loughborough
 Leics. LE11 5RG
For information in Europe, call: (01509) 231166
Emergency Number, Europe: 01509 231166

Section 2 - Composition, Information on Ingredients

| CAS# | Chemical Name: | % | EINECS# |
|-----------|-----------------|-----|-----------|
| 7774-29-0 | MERCURIC IODIDE | >99 | 231-873-8 |

Hazard Symbols: T+ N



Risk Phrases: 26/27/28 33 50/53

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Very toxic by inhalation, in contact with skin and if swallowed. Danger of cumulative effects. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Highly toxic. Light sensitive.

Potential Health Effects

Eye: Contact may cause severe eye irritation and possible eye damage.
Skin: May cause severe skin irritation. May be absorbed through the skin.
Ingestion: May be fatal if swallowed. Poison by ingestion. May cause kidney damage. May cause severe digestive tract irritation with abdominal pain, nausea, vomiting and diarrhea. May cause corrosion and permanent tissue destruction of the esophagus and digestive tract. Can cause nervous system damage.
Inhalation: May cause severe irritation of the respiratory tract with sore throat, coughing, shortness of breath and delayed lung edema. May cause effects similar to those described for ingestion.
Chronic: Chronic inhalation and ingestion may cause effects similar to those of acute inhalation and ingestion. Prolonged or repeated exposure may cause adverse reproductive effects. May cause fetal effects.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

- Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
- Ingestion:** Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid immediately.
- Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician:

Antidote: The use of Dimercaprol or BAL (British Anti-Lewisite) as a chelating agent should be determined by qualified medical personnel.

Section 5 - Fire Fighting Measures

- General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Combustion generates toxic fumes.
- Extinguishing Media:** For small fires, use water spray, dry chemical, carbon dioxide or chemical foam.

Section 6 - Accidental Release Measures

- General Information:** Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks:** Clean up spills immediately, observing precautions in the Protective Equipment section. Sweep up, then place into a suitable container for disposal. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

- Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Store protected from light.
- Storage:** Do not store in direct sunlight. Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Poison room locked.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits

CAS# 7774-29-0:

- United States OSHA: 0.1 mg/m³ Ceiling (Mercury, aryl and inorganic compounds).
- Belgium - TWA: (mercury, aryl and inorganic compounds): 0.1 mg/m³ VLE (as Hg)
- France - VME: (mercury, aryl and inorganic compounds): 0.1 mg/m³ VME (as Hg)
- Germany: (mercury, aryl and inorganic compounds): 0.1 mg/m³ VME (as Hg) Germany: (mercury inorganic compounds): Skin absorber
- Malaysia: (mercury, aryl and inorganic compounds): 0.1 mg/m³ TWA (as Hg)
- Netherlands: (mercury inorganic compounds): 0.15 mg/m³ STEL Netherlands: (mercury inorganic compounds): 0.05 mg/m³ MAC
- Russia: (mercury inorganic compounds): 0.2 mg/m³ TWA (as Hg) Russia: (mercury inorganic compounds): 0.05 mg/m³ STEL (as Hg)
- Spain: (mercury, aryl and inorganic compounds): 0.1 mg/m³ VLA-ED (as Hg)

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's

eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: red

Odor: none reported

pH: Not available

Vapor Pressure: Not available

Viscosity: Not available

Boiling Point: 662 deg F (350.00°C)

Freezing/Melting Point: 498.2 deg F (259.00°C)

Autoignition Temperature: Not available.

Flash Point: Not available

Explosion Limits: Lower: Not available

Explosion Limits: Upper: Not available

Decomposition Temperature: Not available

Solubility in water: Insoluble in water.

Specific Gravity/Density: 6.3600

Molecular Formula: HgI₂

Molecular Weight: 454.399

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: High temperatures, incompatible materials, light, dust generation, excess heat.

Incompatibilities with Other Materials: Not available

Hazardous Decomposition Products: Hydrogen iodide, mercury/mercury oxides.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 7774-29-0: OW5250000

LD50/LC50: RTECS:
CAS# 7774-29-0: Oral, mouse: LD50 = 17 mg/kg;
Oral, rat: LD50 = 18 mg/kg;
Skin, rat: LD50 = 75 mg/kg;

Carcinogenicity: MERCURIC IODIDE - IARC: Group 3 (not classifiable) (Mercury inorganic compounds).

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Other: No information available.

Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

Section 14 - Transport Information

| | IATA | IMO | RID/ADR |
|-----------------------|----------------|----------------|----------------|
| Shipping Name: | MERCURY IODIDE | MERCURY IODIDE | MERCURY IODIDE |
| Hazard Class: | 6.1 | 6.1 | 6.1 |
| UN Number: | 1638 | 1638 | 1638 |
| Packing Group: | II | II | II |

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T+ N

Risk Phrases:

R 26/27/28 Very toxic by inhalation, in contact with skin and if swallowed.

R 33 Danger of cumulative effects.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Safety Phrases:

S 13 Keep away from food, drink and animal feeding stuffs.

S 28 After contact with skin, wash immediately with...

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/safety data sheets.

WGK (Water Danger/Protection)

CAS# 7774-29-0: 3

Canada

CAS# 7774-29-0 is listed on Canada's DSL List

US Federal

TSCA

CAS# 7774-29-0 is listed on the TSCA Inventory.

Section 16 - Other Information

MSDS Creation Date: 12/12/1997

Revision #5 Date 10/03/2005

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.
