

MATERIAL SAFETY DATA SHEET**Product Name:** Mercuric(II) iodide red**CAS No.:** 7774-29-0**Version:** 0**1. Identification**

Product Code : 90455
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2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
MERCURIC(II) IODIDE RED	7774-29-0	99-100%

3. Hazards Identification**Hazard classification****Emergency overview**

: DANGER
May be fatal if inhaled, absorbed through skin, or swallowed. Irritating to eyes, respiratory system and skin. Causes brain, central/peripheral nervous system, kidney, and gastrointestinal tract damage. May cause reproductive effects. Prolonged exposure may cause chronic effects.

OSHA regulatory status

: This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

Saf-T-Data

Health : 4 - Extreme (Poison)
Flammability : 0 - None
Reactivity : 1 - Slight
Contact : 3 - Severe (Life)

Potential health effects**Routes of exposure**

: Ingestion. Inhalation. Skin contact. Eye contact.

Eyes

: Strongly irritating. Prolonged contact may cause burns

Skin

: This product may be fatal if it is absorbed through the skin. Strongly irritating. Prolonged contact may cause burns

Inhalation

: May be fatal if inhaled. Dust irritates the respiratory system, and may cause coughing and difficulties in breathing. Can cause nervous system damage

Ingestion

: May be fatal if swallowed. Ingestion may cause severe irritation of the mouth, the esophagus and the gastrointestinal tract. Can cause

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- Target organs** : nervous system damage.
: Eyes. Skin. Respiratory system. Brain. Nervous System. Kidneys. Reproductive organs. Gastrointestinal tract. Thyroid.
- Chronic effects** : May cause adverse reproductive effects - such as birth defects, miscarriages, or infertility based on animal data. Can cause nervous system damage. Brain damage. Can cause thyroid damage.
- Potential environmental effects** : Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

4. First Aid Measures

- General information** : Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately.
- Skin contact** : Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash clothing separately before reuse. Destroy or thoroughly clean contaminated shoes.
- Inhalation** : Move to fresh air. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen. Call a physician or poison control center immediately.
- Ingestion** : Call a physician or poison control center immediately. Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs.
- Notes to physician** : Treat symptomatically. Symptoms may be delayed. Keep victim under observation
- General advice** : In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Show this safety data sheet to the doctor in attendance. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

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- General fire hazards** : The product is not flammable.
- Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media** : None known.
- Specific hazards arising from the chemical** : Fire may produce irritating, corrosive and/or toxic gases.
- Special protective equipment and precautions for firefighters**
- Special fire fighting procedures** : Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool. Cool containers exposed to flames with water until well after the fire is out.
- Special protective equipment for fire-fighters** : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. Accidental Release Measures

- Personal precautions, protective equipment and emergency procedures** : Keep unauthorized personnel away. Use personal protective equipment. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
- Methods and material for containment and cleaning up** : Sweep up and place in a clearly labeled container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spills for later disposal.
- Notification Procedures** : Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. Inform authorities if large amounts are involved.
- Environmental precautions** : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

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7. Handling and Storage

- Precautions for safe handling** : Wear appropriate personal protective equipment. Do not get in eyes, on skin, on clothing. Do not breathe dust. Do not taste or swallow. Do not eat, drink or smoke when using the product. Use only with adequate ventilation. Wash thoroughly after handling.
- Conditions for safe storage, including any incompatibilities** : Keep tightly closed in a dry, cool and well-ventilated place.

8. Exposure Controls Personal Protection

Control parameters

Occupational exposure limits

Chemical Identity	Type	Exposure Limit Values	Form
MERCURIC IODIDE	BEL	35.0000 µg/g 15.0000 µg/l	
	TWA	0.0250 mg/m ³ 0.0100 ppm	Inhalable fraction and vapor.

Appropriate engineering controls : No data available.

Individual protection measures, such as personal protective equipment

- General information** : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.
- Eye/face protection** : Wear safety glasses with side shields (or goggles) and a face shield.
- Hand protection** : Wear appropriate chemical resistant clothing. Wear appropriate chemical resistant gloves.
- Other** : Wear suitable protective clothing and gloves.
- Respiratory protection** : If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Respirator type: High-efficiency particulate respirator with full facepiece.
- Hygiene measures** : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower.

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Appearance	:	Solid Red Powder.
Odor	:	Odorless
pH	:	Not available
Melting point/freezing point	:	498.2 °F (259 °C)
Initial boiling point and boiling range	:	662 °F (350 °C)
Flash Point	:	Not applicable
Vapor pressure	:	No data available.
Vapor density	:	No data available.
Relative density	:	6.36 @ 25°C/4°C
Solubility in water	:	Slight.
Solubility (other)	:	ammonia: Soluble
Formula	:	Hg-I ₂
Molecular Weight	:	454.9 g/mol

10. Stability and Reactivity

Reactivity	:	No dangerous reaction known under conditions of normal use.
Chemical stability	:	Material is stable under normal conditions.
Possibility of hazardous reactions	:	Hazardous polymerization does not occur.
Conditions to avoid	:	Light. Heat.
Incompatible materials	:	Alkalies. Ammonia. Cyanides. Bromine. Chlorinated compounds. Hydrogen peroxide (H ₂ O ₂). Inorganic salts.
Hazardous decomposition products	:	May include oxides of Mercury. Iodine

11. Toxicological Information**Information on likely routes of exposure**

Ingestion	:	Harmful if swallowed. Lead is absorbed into the body by ingestion.
Inhalation	:	Harmful if inhaled.
Skin contact	:	May cause irritation.
Eye contact	:	Causes serious eye damage.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product	:	Acute Dermal LD50 Rat: 75 mg/kg
Dermal Product	:	Acute Oral LD50 Rat: 18 mg/kg
Inhalation Product	:	No data available.
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	May cause skin irritation.
Serious eye damage/eye irritation Product	:	Causes serious eye damage.

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Respiratory or skin sensitization Product	:	Not a skin sensitizer
Carcinogenicity Product	:	This product is not considered to be a carcinogen
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE	:	No carcinogenic components identified
US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE	:	No carcinogenic components identified
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	:	No carcinogenic components identified
Germ cell mutagenicity In vitro Product	:	No mutagenic components identified
In vivo Product	:	No mutagenic components identified
Reproductive toxicity Product	:	Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. The relevance to humans is uncertain.
Specific target organ toxicity - single exposure Product	:	No data available.
Specific target organ toxicity - repeated exposure Product	:	No data available.
Aspiration hazard Product	:	Not classified.
Other effects	:	None known.

12. Ecological Information**Ecotoxicity****Acute hazards to the aquatic environment :**

Fish Product	:	No data available.
MERCURIC IODIDE	:	LD50 Red algae (Plumaria elegans): 0.156 mg/l 18.00 hours
Aquatic invertebrates Product	:	No data available.

Chronic hazards to the aquatic environment :

Fish Product	:	No data available.
Aquatic invertebrates Product	:	No data available.
Toxicity to Aquatic Plants Product:	:	No data available.
Persistence and degradability		
Biodegradation Product	:	The product is not expected to be biodegradable.
BOD/COD ratio Product	:	No data available.
Bioaccumulative potential		
Bioconcentration factor (BCF) Product	:	No data available on bioaccumulation.
Partition coefficient n-octanol / water (log Kow) Product	:	No data available.
Mobility in soil	:	No data available.
Other adverse effects	:	No data available.

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Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws. Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated packaging Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
DOT	UN1638	MERCURY IODIDE	6.1	II	No
IMDG	UN1638	MERCURY IODIDE	6.1	II	No
IATA	UN1638	MERCURY IODIDE	6.1	II	No

15. Regulatory Information

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

Safety, health and environmental regulations/legislation specific for the substance or mixture
No Data Available.

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