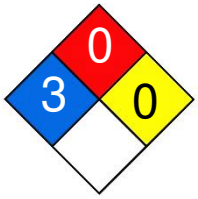

Material Safety Data Sheets

Revision 3

1. IDENTIFICATION

Product Name	**Mercury (II) iodide red**
Other Names	MERCURIC IODIDE; Mercury diiodide;Mercury(II) iodide
Uses	No Data Available
Chemical Family	No Data Available
Chemical Formula	HgI2
Chemical Name	No Data Available
Product Description	No Data Available

Company	**Arman sina.co**
Contact Information	info@armansina.com **www.armansina.com**

2. HAZARD IDENTIFICATION

Hazard Categories

Acute toxicity, Oral (Category 2), H300
Acute toxicity, Inhalation (Category 2), H330
Acute toxicity, Dermal (Category 1), H310
Specific target organ toxicity - repeated exposure (Category 2), Kidney, H373
Short-term (acute) aquatic hazard (Category 1), H400
Long-term (chronic) aquatic hazard (Category 1), H410

Signal Word

Danger

Hazard Statements

H300 + H310 + H330	Fatal if swallowed, in contact with skin or if inhaled.
H373	May cause damage to organs (Kidney) through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements

Prevention

P260	Do not breathe dust.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing.

Response

P301 + P310 + P330	IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.
P302 + P352 + P310	IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor.
P304 + P340 + P310	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.
P314	Get medical advice/ attention if you feel unwell.
P361 + P364	Take off immediately all contaminated clothing and wash it before reuse.
P391	Collect spillage.

Storage

P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

Disposal

P501	Dispose of contents/ container to an approved waste disposal plant.

Symbol

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Mercury (II) iodide red	HgI2	7774-29-0	<= 100 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible.

Eye After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

Skin In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.

Inhaled After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

Advice to Doctor Consult a doctor in case of discomfort showing the SDS for the product.

5. FIRE FIGHTING MEASURES

General Measures Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system

Flammability Conditions No Data Available

Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Fire and Explosion Hazard No Data Available

Hazardous Products of Combustion Hydrogen iodide; Mercury/mercury oxides. Not combustible. Avoid shock and friction. Fire may cause evolution of: mercury vapours, iodine, hydrogen iodide Ambient fire may liberate hazardous vapours.

Special Fire Fighting Instructions Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

Personal Protective Equipment No Data Available

Flash Point No Data Available

Lower Explosion Limit No Data Available

Upper Explosion Limit No Data Available

Auto Ignition Temperature No Data Available

Hazchem Code No Data Available

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	No Data Available
Clean Up Procedures	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.
Containment	No Data Available
Decontamination	No Data Available
Environmental Precautionary Measures	Do not let product enter drains.
Evacuation Criteria	No Data Available
Personal Precautionary Measures.	Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

7. HANDLING AND STORAGE

Handling	Work under hood. Do not inhale substance/mixture.
Storage	Protected from light.Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Recommended storage temperature see product label.
Container	Keep containers tightly closed

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General

Exposure Limits	No Data Available
Biological Limits	No Data Available
Engineering Measures	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

Personal Protection Equipment

Eye/face protection	Use equipment for eye protection tested and approved under appropriate
Skin protection	Material: Nitrile rubber Minimum layer thickness: 0.11 mm
Body Protection	protective clothing
Respiratory protection	Recommended Filter type: Filter type P3

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.
required when dusts are generated.

Special Hazards Precaustions	No Data Available
Work Hygienic Practices	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	Solid
Odour	no data available
Colour	red
pH	No Data Available
Vapour Pressure	No Data Available
Relative Vapour Density	No Data Available
Boiling Point	354 °C 669 °F at 1,013 hPa
Melting Point	259 °C (498 °F)
Freezing Point	No Data Available
Solubility	Note: Decomposes in contact with water
Specific Gravity	No Data Available
Flash Point	No Data Available
Auto Ignition Temp	No information available.
Evaporation Rate	No Data Available
Bulk Density	~1350kg/ m3
Corrosion Rate	No Data Available
Decomposition Temperature	> 400 °C
Density	6.360 g/cm3 at 20 °C (68 °F)
Specific Heat	No Data Available
Molecular Weight	454.40 g/mol
Net Propellant Weight	No Data Available
Octanol Water Coefficient	No Data Available
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	No information available.
Potential for Dust Explosion	No Data Available
Fast or Intensely Burning Characteristics	No information available.
Flame Propagation or Burning Rate of Solid Materials	No information available.
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No information available.
Properties That May Initiate or Contribute to Fire Intensity	No information available.
Reactions That Release Gases or Vapours	No information available.
Release of Invisible Flammable Vapours and Gases	No information available. No information available.

10. STABILITY AND REACTIVITY

General Information	Possibility of hazardous reactions Risk of explosion with: Alkali metals Risk of ignition or formation of inflammable gases or vapours with: halogen-halogen compounds
Chemical Stability	The product is chemically stable under standard ambient conditions (See Section 7).
Conditions to Avoid	Exposure to light may affect product quality. no information available
Materials to Avoid	Strong oxidizing agents
Hazardous Decomposition Products	In the event of fire: see section 5
Hazardous Polymerisation	No data available

11. TOXICOLOGICAL INFORMATION

General Information

Cough, Shortness of breath, Headache, Nausea, Vomiting, prolonged or repeated exposure can cause:, Neurotoxic effects. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Mercury compounds have a cytotoxic and protoplasmatoxic effect. Intoxication symptoms: acute: contact with eye causes severe lesions. Swallowing and inhalation of dusts damages mucous membranes of gastrointestinal and respiratory tract (metallic taste, nausea, vomiting, abdominal pain, bloody diarrhoea, intestinal burns, glottal oedema, aspiration pneumonia); drop in blood pressure, cardiac dysrhythmia, circulatory collapse, and renal failure; chronic: inflammation of the mouth with loss of teeth and mercurial line. The principal signs manifest themselves in the CNS (impaired speech, vision, hearing, and sensitivity, loss of memory, irritability, hallucinations, delirium inter alia). This substance should be handled with particular care. Stomach - Irregularities - Based on Human Evidence.
Specific target organ toxicity - repeated exposure May cause damage to organs through prolonged or repeated exposure. - Kidney

Acute

Acute toxicity
LD50 Oral - Rat - 18 mg/kg
Remarks: (RTECS)
Acute toxicity estimate Inhalation - 4 h - 0.051 mg/l - dust/mist

(Expert judgment)
Acute toxicity estimate Inhalation - Expert judgment - 4 h - 0.051 mg/l - dust/mist

Acute toxicity estimate Dermal - Expert judgment - 5.1 mg/kg
(Expert judgment)
Acute toxicity estimate Dermal - 5.1 mg/kg
No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity to fish	LC50 - Leuciscus idus (Golden orfe) - 0.13 mg/l - 96 h Remarks: (Lit.)
	Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 0.0052 mg/l - 48 h Remarks: (Lit.)

Persistence/Degradability	Biodegradability Result: - Not readily biodegradable.
Mobility	No Data Available
Environmental Fate	No Data Available
Bioaccumulation Potential	No Data Available
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.
Special Precautions for Land Fill	No Data Available

14. TRANSPORT INFORMATION

Land Transport

Proper Shipping Name	MERCURY IODIDE
Class	6.1
Subsidiary Risk(s)	No Data Available
EPG	No Data Available
UN Number	UN 1638
Hazchem	No Data Available
Pack Group	II
Special Provision	No Data Available

Sea Transport

Proper Shipping Name	MERCURY IODIDE
Class	6.1
Subsidiary Risk(s)	No Data Available
UN Number	UN 1638
Hazchem	No Data Available
Pack Group	II
Special Provision	No Data Available
EMS	No Data Available
Marine Pollutant	yes

Air Transport

Proper Shipping Name	MERCURY IODIDE
Class	6.1
Subsidiary Risk(s)	No Data Available
UN Number	UN 1638
Hazchem	No Data Available
Pack Group	II
Special Provision	No Data Available

15. OTHER INFORMATION

Revision 3

Key/Legend

< Less Than
> Greater Than
atm Atmosphere
CAS Chemical Abstracts Service (Registry Number)
cm² Square Centimetres
CO2 Carbon Dioxide
COD Chemical Oxygen Demand
deg C (° C) Degrees Celcius
deg F (° F) Degrees Farenheit
g Grams
g/cm³ Grams per Cubic Centimetre
g/l Grams per Litre
HSNO Hazardous Substance and New Organism
IDLH Immediately Dangerous to Life and Health
immiscible Liquids are insoluable in each other.
inHg Inch of Mercury
inH2O Inch of Water
K Kelvin
kg Kilogram
kg/m³ Kilograms per Cubic Metre
lb Pound
LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours.
LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals.
ltr or L Litre
m³ Cubic Metre
mbar Millibar
mg Milligram
mg/24H Milligrams per 24 Hours
mg/kg Milligrams per Kilogram
mg/m³ Milligrams per Cubic Metre
Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present.
mm Millimetre
mmH2O Millimetres of Water
mPa.s Millipascals per Second
N/A Not Applicable
NIOSH National Institute for Occupational Safety and Health
NOHSC National Occupational Heath and Safety Commission
OECD Organisation for Economic Co-operation and Development
Oz Ounce
PEL Permissible Exposure Limit
Pa Pascal
ppb Parts per Billion
ppm Parts per Million
ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight