

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Catalogue No. : M 40817

Product Name : MERCURIC IODIDE RED

Manufacturer/supplier identification

Company : NICE Chemicals (P) Ltd., Cochin, India

Tel - 0484 2800212, 2802755

Contact for information : Tel. No.- 0484 2802536 Fax : 0484 2802483 Emergency Telephone No. : 0484 2801583 Tele fax No. : 0484 2802483

2. COMPOSITION/INFORMATION ON INGREDIENTS

CAS-No : 7774-29-0 EC Index No. : 080-002-00-6

Molar Mass : 454.4 EC No. : 231-873-8

Molecular Formula : Hgl₂

3. HAZARDS INDEX : Very toxic by inhalation, in contact with skin and if swallowed.

Danger of cumulative effects.

4. FIRST AID MEASURES : After inhalation : Fresh air. If necessary, apply mouth-to-mouth

resuscitation or mechanical ventilation. Immediately summon doctor.

After skin contact: Wash off with plenty of water.

Remove contaminated clothing.

After eye contact: Rinse out with plenty of water for at least 10 minutes

with the eyelid held wide open. Immediately summon eye specialist.

After swallowing: if victim is still conscious, make him drink plenty of

water, induce vomiting, administer activated charcoal (20-40 g in 10%

slurry). Immediately summon doctor.



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5. FIRE-FIGHTING MEASURES : Suitable extinguishing media: In adaption to materials stored in the

immediate neighbourhood.

Special risks: Development of hazardous combustion gases or vapours

possible in the event of fire.

The following may develop in event of fire:

mercury vapours, iodine, hydrogen iodide.

Special protective equipment for fire fighting: Do not stay in dangerous zone without suitable chemical protection clothing and self contained breathing apparatus.

Other information: Non-combustible. Prevent fire fighting water entering surface water or ground water. Contain escaping vapours with water.

6. ACCIDENTAL RELEASE MEASURES : Person related precautionary measures :

Avoid generation of dusts; do not inhale dusts. Avoid substance contact.

Procedures for cleaning/absorption: Carefully take up dry. Forward for disposal. Clean up affected area. Avoid generation of dusts

Environmental protection measures :

Do not allow to enter sewerage system.

7. HANDLING AND STORAGE

Handling: No further requirements.

Storage: Tightly closed. Dry. Protected from light in a

well-ventilated place.

Storage temperature : No restrictions.

Accessible only for authorized persons.



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8. EXPOSURE CONTROLS/ PERSONAL PROTECTION Respiratory protection: Required when dusts are generated.

Eye Protection : Required

Hand Protection : Required

Protective clothing should be selected specifically for the working place, depending on concentration and quality of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Industrial hygiene: Immediately change contaminated clothing. Apply skin protective barrier cream. Wash hands and face after working with substance. Under no circumstances eat or drink at workplace.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form Solid Colour Red

Odour Odourless

pH value at 50 gm/lt.H₂O(20° C) 6-7 (slurry)

259° C Melting temperature 354° C

Boiling temperature (760 mmHg)

Ignition temperature Not available

Flash Point Not available

Explosion limit lower Not available

> Not available upper

Vapour pressure (60 ° C) ~0.001 hPa

> $(80^{\circ} \, \text{C})$ ~0.006 hPa

Relative vapour density Not available 6.28 gm/cm^{3} Density (20°C)

 $\sim 1350 \text{ kg/m}^3$ Bulk density

Solubility in Water (25 ° C) 0.06 gm/lt.



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10. STABILITY & REACTIVITY : Conditions to be avoided : Strong heating

Substances to be avoided: fluorine and alkali metals.

Hazardous decomposition products: in the event of fire:

Hydrogen iodide, mercuric vapours, iodine.

Further information: light-sensitive;

11. TOXICOLOGICAL INFORMATION : Acute toxicity : LD₅₀ (oral, rat) : 18 mg/kg;

Further toxicological information: Mercury compounds have a cytotoxic & protoplasmatoxic effecting. Intoxication symptoms; acute; contact with eyes 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 them- selves in the CNS (impaired speech, vision, hearing, and sensitivity, loss of memory, irritability, hallucinations, delirium inter alia). Pregnant women should not be exposed to the product.

Further data: Further hazardous properties cannot be excluded. The product should be handled with the care usual when dealing with chemicals.

12. ECOLOGICAL INFORMATION

Ecotoxic effects: Biological effects: Highly toxic

for aquatic organisms. Aquatic organisms LC₅₀ : 1 mg/l/96 h;

Fish toxicity: L.idus LC₅₀: 0.5 mg/l/48 h;

The following applies to the water-soluble matter contained in inorganic Hg compounds in general (tested with mercury (II) chloride): Leuciscus idus $LC_{50}:0.5 \text{ mg/l}(48 \text{ h})$, Daphnia magna $EC_{50}:0.005\text{--}3.6 \text{ mg/l}(48 \text{ h})$,



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Chlorella pyrenoidosa EC_{50} : 0.3 mg/l(5h),

Pseudomonas fluorescens IC_{50} : 0.005 mg/lt/

The toxicity of mercury (II) ions for water organisms

depends on the water hardness [source : IPCS]

Further ecologic data: Do not allow to enter waters, waste water, or soil.

13. DISPOSAL METHOD

Disposal in compliance with official regulations. Handle contaminated packaging in the same way as the substance itself. If not officially specified differently, non-contaminated packaging may be treated like house-hold waste or recycled.

There are no uniform EC regulation for the disposal of chemicals residues. Chemical residues generally count as special waste. Approved waste disposal companies which will advise you on how to dispose of special waste.

14. TRANSPORT INFORMATION

Transport over land

ADR/RID and GGVS/GGVE: GGVS/GGVE class: 6.1 Number and letter: 52b

ADR/RID class : 6.1 Number and letter : 52b

Name of material: MERCURIC IODIDE RED

Sea Transport IMDG : IMDG class : 6.1 UN No. : 1638 Packing group : II

Ems : 6.1-04 MFAG : 105

Correct Technical Name: MERCURIC IODIDE RED

Air Transport ICAO-TI

and IATA-DGR : ICAO/IATA class : 6.1 UN No. : 1638

Packaging group : II

Correct Technical Name: MERCURIC IODIDE RED



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15. REGULATORY INFORMATION

Labeling according to EC Directives

Symbol : T+ Very toxic

R-phrases : 26/27/28-33 Very toxic by inhalation, in contact with skin and

if swallowed. Danger of cumulative effects.

S-phrases: 13-28-45 Keep away from food, drink and animal feeding stuffs. After

contact with skin, wash immediately with plenty of water. In case of accident or if you feel unwell, seek medical advice

immediately (show the label where possible).

EC-No. : 231-873-8 EC label

Water pollution class: 3 (highly polluting substance)

16. OTHER INFORMATION

Reason for alteration:

Change in the chapter on ecology.

Change in supplement to physical/chemical parameters.

General update.

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.