
 <p>CHEMLABS Quality Our Forte</p>	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): CUPROUS IODIDE</p>			<p>1 Page of 1</p>

SECTION 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MSDS Name: Cuprous Iodide

Catalog Numbers: C229

Synonyms: Cuprous iodide

CAS-No. : 7681-65-4

Company Information:



LEONID CHEMICALS Pvt Ltd,
62/A2, 1st Stage,
Yeshwanthpur Industrial Suburb,
Ashokpuram School Road,
Bangalore -22, Karnataka, INDIA
Ph- +91-80-23378354
Fax: +918023378354/23377126
Email: lab@leonidchemicals.net

SECTION 2. HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture
 Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
 Acute toxicity, Oral (Category 4)
 Skin irritation (Category 2)
 Eye irritation (Category 2)
 Specific target organ toxicity - single exposure (Category 3)
 Acute aquatic toxicity (Category 1)
 Chronic aquatic toxicity (Category 1)

Classification according to EU Directives 67/548/EEC or 1999/45/EC
 Harmful if swallowed. Irritating to eyes, respiratory system and skin. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- 2.2 Label elements
 Labelling according Regulation (EC) No 1272/2008 [CLP]

 <p>CHEMLABS Quality Our Forte</p>	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): CUPROUS IODIDE</p>			<p>2 Page of 1</p>

Signal word

Warning

Hazard statement(s)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)

P261	Avoid breathing dust.
P273	Avoid release to the environment.
P305 + P351 + P338 IF IN EYES	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/ container to an approved waste disposal plant.

Supplemental Hazard Statements

none

According to European Directive 67/548/EEC as amended.

Hazard symbol(s)

R-phrase(s)

R22 Harmful if swallowed.
R36/37/38 Irritating to eyes, respiratory system and skin.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s)



S22 Do not breathe dust.
S24/25 Avoid contact with skin and eyes.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

2.3 Other hazards - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Synonyms : Cuprous iodide
Formula : CuI
Molecular Weight : 190,45 g/mol

 <p>CHEMLABS Quality Our Forte</p>	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): CUPROUS IODIDE</p>			<p>3 Page of 1</p>

Component		Concentration
Copper iodide		
CAS-No.	7681-65-4	-
EC-No.	231-674-6	

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.



If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms of systemic copper poisoning may include: capillary damage, headache, cold sweat, weak pulse, and kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Death may occur from shock or renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelination, kidney defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has lead to hemolytic anemia and accelerates arteriosclerosis., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

4.3 Indication of any immediate medical attention and special treatment needed
no data available

 <p>CHEMLABS[®] Quality Our Forte</p>	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): CUPROUS IODIDE</p>			<p>4 Page of 1</p>

SECTION 5. FIREFIGHTING MEASURES

.....

5.1 Extinguishing media

Suitable extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Hydrogen iodide, Copper oxides

5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

The product itself does not burn.

.....

SECTION 6. ACCIDENTAL RELEASE MEASURES

.....

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

.....

SECTION 7. HANDLING AND STORAGE

.....



7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Light sensitive.

7.3 Specific end uses

	<p style="text-align: center;">LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p style="text-align: center;">An ISO-9001:2008 Certified Company</p> <p style="text-align: center;">Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): CUPROUS IODIDE</p>			<p>5 Page of 1</p>

no data available

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Immersion protection



Material : Nitrile rubber
 Minimum layer thickness : 0,11 mm
 Break through time : > 480 min
 Material tested : Dermatril

Splash protection

Material : Nitrile rubber
 Minimum layer thickness : 0,11 mm
 Break through time : > 30 min
 Material tested : Dermatril
 test method : EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an Industrial Hygienist familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection

 <p>CHEMLABS Quality Our Forte</p>	<p align="center">LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p align="center">An ISO-9001:2008 Certified Company</p> <p align="center">Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): CUPROUS IODIDE</p>			<p>6 Page of 1</p>

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES




9.1 Information on basic physical and chemical properties

- a) Appearance Form : powder
- Colour : brown
- b) Odour : odourless
- c) Odour Threshold : no data available
- d) pH : no data available
- e) Melting point/freezing point : Melting point/range: 605 °C
- f) Initial boiling point : 1.290 °C
- g) Flash point : no data available
- h) Evaporation rate : no data available
- i) Flammability (solid, gas) : no data available
- j) Upper/lower flammability : no data available
- k) Vapour pressure : 13 hPa at 656 °C
- l) Vapour density : no data available
- m) Relative density : 5,62 g/mL at 25 °C
- n) Water solubility : insoluble
- o) Partition coefficient: noctanol/water : no data available
- p) Autoignition temperature : no data available
- no data available
- q) Decomposition temperature : no data available
- r) Viscosity : no data available
- s) Explosive properties : no data available
- t) Oxidizing properties : no data available

9.2 Other safety information

Bulk density 1.400 kg/m³

SECTION 10. STABILITY AND REACTIVITY

	<p align="center">LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p align="center">An ISO-9001:2008 Certified Company</p> <p align="center">Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	  <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): CUPROUS IODIDE</p>			<p>7 Page of 1</p>

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

Oxidizing agents, Potassium, Alkali metals

10.6 Hazardous decomposition products

Other decomposition products - no data available

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity




IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

Inhalation - May cause respiratory irritation.

	<p style="text-align: center;">LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p style="text-align: center;">An ISO-9001:2008 Certified Company</p> <p style="text-align: center;">Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI</p> <p>(CODE) SECTION : WI/SM</p> <p>(DATE) : 01.04.2011</p>	  <p>Issue : 02</p> <p>Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): CUPROUS IODIDE</p>			<p>8 Page of 1</p>

Specific target organ toxicity - repeated exposure
no data available

Aspiration hazard
no data available

Potential health effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion Harmful if swallowed.

Skin May be harmful if absorbed through skin. Causes skin irritation.

Eyes Causes serious eye irritation.

Signs and Symptoms of Exposure

Symptoms of systemic copper poisoning may include: capillary damage, headache, cold sweat, weak pulse, and kidney and liver damage, central nervous system excitation followed by depression, jaundice, convulsions, paralysis, and coma. Death may occur from shock or renal failure. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelination, kidney defects, and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has lead to hemolytic anemia and accelerates arteriosclerosis., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional Information

RTECS: Not available

.....
SECTION 12. ECOLOGICAL INFORMATION
.....

12.1 Toxicity

Toxicity to fish LC50 - Danio rerio (zebra fish) - 0,4 mg/l - 96,0 h

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil



no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

Very toxic to aquatic life with long lasting effects.

 <p>CHEMLABS Quality Our Forte</p>	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): CUPROUS IODIDE</p>			<p>9 Page of 1</p>

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

SECTION 14. TRANSPORT INFORMATION

14.1 UN number

ADR/RID: 3077

IMDG: 3077

IATA: 3077

14.2 UN proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper iodide)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Copper iodide)

IATA: Environmentally hazardous substance, solid, n.o.s. (Copper iodide)

14.3 Transport hazard class(es)

ADR/RID: 9 IMDG: 9 IATA: 9

14.4 Packaging group

ADR/RID: III IMDG: III IATA: III

14.5 Environmental hazards

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

14.6 Special precautions for user



Further information

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

SECTION 15. REGULATORY INFORMATION

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

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

	<p>LEONID CHEMICALS PVT. LTD., BANGALORE</p> <p>An ISO-9001:2008 Certified Company</p> <p>Quality Assurance Department</p>	<p>(CODE) DOCUMENT : WI (CODE) SECTION : WI/SM (DATE) : 01.04.2011</p>	 <p>Issue : 02 Rev.: 00</p>
<p>Title: MATERIAL SAFETY DATA SHEET (MSDS): CUPROUS IODIDE</p>			<p>10 Page of 1</p>

no data available

15.2 Chemical Safety Assessment

no data available

.....

SECTION 16 - ADDITIONAL INFORMATION

.....

Further information

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 Leonid Chemicals Pvt. Ltd. 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 Leonid Chemicals Pvt. Ltd. has been advised of the possibility of such damages.



CHEMLABS[®]
Quality Our Forte