

Safety Data Sheet

Prepared to US OSHA HazCom 2012, CMA, ANSI, European Directives and the UN Globally Harmonized System, 3rd Edition

1. Chemical Product Identification

GHS Product Identifier: 106.44 Cuprous Iodide

Manufacturer/Supplier: Deepwater Chemicals, Inc. 1210 Airpark Road, Woodward, Oklahoma 73801; Tel: 800-854-4064, Website: www.deepwaterchemicals.com

Recommended Use: Used in the Nylon tire cord industry; Reagent in organic synthesis; In sea water activated batteries; Weather Modification, Cloud seeding; Heat stabilizer for nylon in the carpet industry; Source of Iodine in animal feed; Used in the detection of mercury.

(24) Hour Emergency Contact: Chemtrec 800-424-9300

Technical Service: 580-334-3539



2. Hazard Identification

Signal Word: Warning! Acute Toxicity, Oral, (Category 4), Harmful if Swallowed; Causes skin irritation (Category 2); May cause an allergic skin reaction (Skin Sens. 1); Causes serious eye damage (Eye Dam. 1); Causes damage to organs through prolonged or repeated exposure (STO RE 1); Very toxic to aquatic life (Category 1); Toxic to aquatic life with long lasting effects (Aquatic Chronic 2)

3. Composition/Information on Ingredients

Chemical Identity	Molecular Weight	Chemical Formula	CAS#	EINECS#	Percent%
Cuprous Iodide	190.45	CuI	7681-65-4	231-674-6	99-100

4. First Aid Measures and Acute Health Hazards

Eye Contact: Causes eye irritation. May cause damage to organs through prolonged or repeated exposure. IF IN EYES:

Flush with copious amounts of water for 30 minutes, occasionally lifting the upper and lower lids. Get medical advice/attention.

Skin Contact: Avoid breathing dusts. Do not get into eyes, on skin or on clothing. Causes skin irritation. IF ON SKIN:

Remove/Take off immediately, all contaminated clothing. Rinse skin with water/shower. Wash hands thoroughly after handling.

Ingestion: Ingestion may irritate the gastrointestinal tract. IF SWALLOWED:

Immediately call a POISON CENTER or doctor/physician.

Inhalation: Inhalation of dusts can irritate the respiratory tract. Symptom of exposure will be severe metallic taste. IF INHALED:

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Give oxygen. Get medical advice/attention.

Chronic Exposure/Target Organs: Chronic exposure of iodides may produce "iodism", which maybe manifested by skin rash, running nose, headache and irritation of the mucous membranes.

Aggravation of Pre-existing Conditions: No Information found

5. Fire Fighting Measures

Flash Point: Not Applicable	Method Used: Setaflash Closed Cup	
LEL %: No Data Available	Auto Ignition Temp: NDA	
UEL%: No Data Available		

Fire and Explosion Hazards : Noncombustible. Fire may produce toxic or irritating gases or fumes of Iodine.

Extinguishing Media: Use dry chemical, CO₂ or water spray.

Fire Fighting Instructions:

Small Fires: Use dry chemical, CO₂ or water spray.

Large Fires: Use water spray, fog or regular foam. Move containers from area if you can without risk. Dike fire control water for later disposal. Do not scatter material. Wear full protective clothing and NIOSH approved SCBA apparatus with a full-face respirator.

6. Accidental Release Measures

Evacuation: See the Table of Initial Isolation and Protective Action Distances from the Emergency Response Guidebook, ERG# 153.

Containment: Ventilate area of leak and spill. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Eliminate source of spill if possible. Contain and recover solid when possible. Collect in an appropriate container or absorb with an inert material, i.e, vermiculite, dry sand earth, and place in a chemical waste drum. Do not use combustible materials, such as sawdust. Do not flush to sewer!

Reporting: In the event of a Hazardous Materials Incident during transportation, the regulations in 49CFR 171.15 and 171.16 are to be followed. Under 40CFR 302.6 (CERCLA), Cuprous Iodide does not have a RQ.

7. Handling and Storage

Storage Conditions: Store in UN-rated fiber or HDPE drum and an inner polyethylene liner. Store in a cool, dry, well-ventilated area away from incompatible substances, direct sunlight or elevated temperatures. May cake upon long term storage. Keep containers tightly closed using a tamper-evident seal. Protect against physical damage. Shower and dispose of outer clothing and change to clean garments at the end of the day. Wash hands before eating and do not eat, drink or smoke in workplace. Containers of this material may be hazardous when empty since they retain product residues.

8. Exposure Controls/Personal Protection

<u>Substance (CAS#)</u>	<u>ACGIH- TLV</u>	<u>ACGIH- STEL</u>	<u>OSHA- PEL</u>	<u>OSHA- STEL</u>
Cuprous Iodide (CAS# 7783-96-2)	Not Established	Not Established	Not established	Not Established
Copper compounds, soluble as Cu	0.01 mg/m ³		0.01 mg/m ³	

Engineering Controls/Ventilation: Use appropriate and MACT engineering controls to reduce air contamination and dust to approved or permissible standards. Where such systems are not effective or not feasible, wear suitable personal protective equipment, which performs satisfactorily and meets local/national standards.

Eye/Face Protection: Avoid eye and skin contact with dusts. Eye contact can be avoided by wearing a full-face shield or safety glasses with side and brow protection. Refer to OSHA's 29 CFR 1910.133 Eye and Face Protection Standard for regulatory compliance.

Skin Protection: Proper protective gloves should be worn when handling hazardous materials. Glove selection guides should be consulted. Rubber, Nitrile, PVC coated, Neoprene, Vinyl or Butyl gloves offer proper protection. It is recommended to wear full skin

protection. This can be achieved by wearing breathable chemical suits, Teflon impregnated, with hoods and elastic bands for the wrists and ankles.

Respiratory Protection: Always use a NIOSH approved, at minimum, P95 filtration efficiency respirator or, NIOSH P100 cartridge for a full-face respirator. Observe the manufacturer's cartridge service-life and the recommended change schedule. Refer to OSHA's 29 CFR 1910.134 Respiratory Protection Program for regulatory compliance is the use of these respirators.

9. Physical and Chemicals Properties

Appearance:	White to Tan powder
Odor:	Odorless
Physical State:	Solid
pH (10% solution)	Not Applicable
Boiling Point:	1290 Deg ° C (Decomposes)
Melting Point:	606 Deg ° C
Freezing Point:	Not Applicable
Vapor Pressure:	10 mmHg (606 Deg ° C)
Vapor Density:	Not Applicable
Bulk Density	5.67 g/cm ³
Evaporation Rate:	Not Applicable
Solubility in Water:	Insoluble in water; .0042 g/100 gm of water
Percent Solids by Weight:	100%
Percent Volatile:	No data
Refractive Index	2.346
Volatile Organic Compounds	None
Molecular Weight	190.45

Note: The physical data presented above are typical values and should not be construed as a specification.

10. Stability and Reactivity

Stability: Stable under ambient temperatures and pressure

Incompatible Materials: Contact of Copper compounds with acetylene may cause formation of copper acetylide, which is a shock-sensitive explosive. Contact with ammonia may cause formation of compounds that are explosive when dry. Contact with hydrogen peroxide solutions causes violent decomposition with the formation of oxygen gas.

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Substance (CAS No.)	Copper Iodide	7681-65-4
Acute Testing	Route of Entry	Value/Critical Effects
Eye Irritation		Category 2B
Skin Irritation		Category 2
Skin Sensitization		Skin Sensitizer 1
Oral Toxicity	LD50 oral-rat	2,100 mg/kg

Subchronic Exposure: This substance has not been fully investigated to provide any information.

Chronic Exposure/Carcinogenicity: This substance has not been fully investigated to provide any information.

Teratology/Developmental Toxicity: Human teratogenic effects by ingestion

Reproductive Toxicity: Experimental teratogenic and reproductive effects

Mutagenicity/Genotoxicity: This substance has not been fully investigated to provide any information.

Neurotoxicity: This substance has not been fully investigated to provide any information.

12. Ecological Information

Toxicity to Fish: Very toxic to aquatic life with long lasting effects. LC50 8.96mg/l (Rainbow Trout); Exposure Time: 96 Hrs

Persistence and degradability: No Data Available

Bioaccumulative potential: No Data Available

Mobility in Soil: No Data Available

Other Adverse Effects: No Data Available

Products of Biodegradation: Hazardous short term degradation products are not known. However, long term products may arise.

13. Disposal Considerations

Dispose of in a manner consistent with federal, state and local regulations. This material is not listed as an Underlying Hazardous Constituent (UHC). The Hazardous Waste Characteristic of Toxicity has not been performed on this compound using the TCLP Method 1311. Recover and Recycling of Iodides is standard practice in the manufacturing industry. Refer to your manufacturer/recycler for additional information.

14. Transport Information

SHIPPING CRITERIA	US DOT	IATA
Proper Shipping Name	Environmentally Hazardous Substance, Solid, n.o.s. (Cuprous Iodide)	Environmentally Hazardous Substance, Solid, n.o.s. (Cuprous Iodide)
Hazard Class	Class 9	Class 9
Identification Number	UN 3077	UN 3077
Packing Group	PG III	PG III
Shipping Label	Environmentally Hazardous Substance	Environmentally Hazardous Substance
Additional Marking Requirement	Refer to 49 CFR	Refer to Current Revision of IATA

15. Regulatory Information

US Federal Regulations:

OSHA: This material is not considered a Highly Hazardous Chemical and has no established Permissible Exposure Limit (PEL).

EPA: Clean Air Act- This material is not listed as a Hazardous Air Pollutant (HAP). This material does not contain any Class 1 or 2 Ozone Depletors.
Clean Water Act- This material is not listed as a Hazardous Substance, Priority Pollutant or as a Toxic Pollutant.
TSCA- CAS# 7681-65-4 is listed on the Public Inventory.
SARA Title III-
 Section 302: RQ= Not Applicable
 Section 302: This product does not have a Threshold Planning Quantity (TPQ)
 Section 313: This material subject to reporting under 40 CFR Part 372, Toxic Release Inventory.

Individual Country Lists: This material can be found on the following country listings; Australia (AICS), Canada (WHMIS), EU (REACH), Japan (ENCS), Korea (ECL), Philippines (PICCS), New Zealand (NZIoC), SWISS (Giftliste 1), Taiwan (BSMI).

European Regulations

European Priority Lists Information (Council Regulation (EEC) 793/93):

This chemical substance is not listed in a priority list.

Classification and Labeling Information:

This chemical substance is not classified in the Annex I of Directive 67/548/EEC.

IUCLID & OECD Chemical Data Sheets and Export Files Information:

Not available for this substance

European Risk Assessment Information (Council Regulation (EEC) 793/93):

Not available for this substance

EU: EINECS#: 231-674-6

State Regulations: Each State and LEPC may promulgate standards more stringent than the federal government. This section cannot encompass an inclusive list of all state regulations. Therefore the user should consult state and local authorities.

16. Other Information

Users Responsibility: A bulletin such as this cannot be expected to cover all possible individual situations. As the user has the responsibility to provide a safe workplace, all aspects of an individual operation should be examined to determine if, or where, precautions are required. Any health hazard and safety information herein should be passed on to your customers or employees.

Disclaimer of Liability: The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards are described herein, we cannot guarantee that these are the only hazards which exist. Final determination of suitability of the chemical is the sole responsibility of the user. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein or the chemical to which the information refers. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations.

SDS Code: 106.44 GHS

Effective : 06/01/2015

Supersedes: 09/11/2000

For Technical or Regulatory Information contact:

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