

## Safety Data Sheet

Prepared to US OSHA, CMA, ANSI, European Directives and the UN Globally Harmonized System, 3<sup>rd</sup> Edition

### 1. Chemical Product Identification

**GHS Product Identifier:** 163.44, Methylene Iodide, Diiodomethane  
**Manufacturer/Supplier:** Deepwater Chemicals, Inc. 1210 Airpark Road, Woodward, Oklahoma 73801; Tel: 800-854-4064, Website: [www.deepwaterchemicals.com](http://www.deepwaterchemicals.com)

**Recommended Use:** Diiodomethane is used to determine the density of minerals and other solid samples; also an optical contact liquid, in conjunction with the gemological refractometer, for determining the refractive index of certain gemstones. Diiodomethane is used as a reagent.

**Emergency Contact:** Chemtrec 800-424-9300  
**Technical Service:** 580-334-3539



### 2. Hazard Identification

**WARNING! Harmful if swallowed. Acute Toxicity Category 4 .WARNING! Maybe harmful in contact with skin. Harmful in contact with skin. Harmful if Inhaled. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.**

### 3. Composition/Information on Ingredients

Chemical Identity	Molecular Weight	Chemical Formula	CAS#	EINECS#	Percent%
Methylene Iodide	267.83	CH <sub>2</sub> I <sub>2</sub>	75-11-6	200-841-5	98.0-100

#### 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. 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:** Prolonged or repeated exposure to smaller doses causes primarily irritation to the skin and eyes. Target organs have not been thoroughly investigated. Phosphonium compounds may cause nervous system injury after prolonged exposure based on animal data.

**Aggravation of Pre-existing Conditions:** Persons with pre-existing skin disorders or eye problems or impaired respiratory function and asthma may be more susceptible to the effects of this substance.

#### 5. Fire Fighting Measures

<b>Flash Point:</b> 113°C	<b>Method Used:</b> Setaflash Closed Cup	
<b>LEL %:</b> No Data Available	<b>Auto Ignition Temp:</b> NDA	
<b>UEL%:</b> No Data Available		

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

**Extinguishing Media:** Use dry chemical, CO<sub>2</sub> or water spray.

**Fire Fighting Instructions:**

**Small Fires:** Use dry chemical, CO<sub>2</sub> 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.

See the Emergency Response section, Fire, from the Emergency Response Guidebook, ERG# 153 for additional information.

## 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 liquid 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), Methylene Iodide does not have a RQ.

## 7. Handling and Storage

**Storage Conditions:** Store in UN-rated SS drum or CS drum with an HDPE liner. Store in a cool, dry, well-ventilated area away from incompatible substances, direct sunlight or elevated temperatures. 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>
Methylene Iodide (75-11-6)	Not Established	Not Established	Not Established	Not Established

**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 or toxic 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

<b>Appearance:</b>	Colorless to Yellow, Highly Refractive
<b>Odor:</b>	Ethereal
<b>Physical State:</b>	Dense Liquid
<b>pH</b>	Not Applicable
<b>Boiling Point:</b>	181 °C
<b>Melting Point:</b>	Not Applicable
<b>Freezing Point:</b>	161-171 °C
<b>Vapor Pressure:</b>	N/A
<b>Vapor Density:</b>	9.25
<b>Bulk Density</b>	3.325
<b>Evaporation Rate:</b>	Unknown
<b>Solubility in Water:</b>	Slightly soluble, 1.24 grams/liter
<b>Percent Solids by Weight:</b>	Not Applicable
<b>Percent Volatile:</b>	100%
<b>Volatile Organic Compounds</b>	Yes
<b>Refractive Index</b>	1.741

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, but will yellow as a result of oxidation by the formation of free iodine

**Incompatible Materials:** Potentially explosive reaction with diethyl zinc and alkenes. Violent reaction with copper-zinc alloys and ether. Forms very shock-sensitive mixtures with potassium, sodium-alloys and lithium. Avoid strong oxidizers and bases.

**Hazardous Polymerization:** Will not occur.

## 11. Toxicological Information

Substance (CAS No.)	Methylene Iodide	75-11-6
Acute Testing	Route of Entry	Value/Critical Effects
Eye Irritation		Severe with corneal effects > 21 day
Skin Irritation		Rabbit- Slight irritation
Skin Sensitization		Negative (M/K Maximization test)
Dermal Toxicity	LD <sub>50</sub> (ipr) rat	403 mg/kg
Dermal Toxicity	LD <sub>50</sub> (oral) mus	467 mg/kg
Inhalation Toxicity	LC <sub>50</sub> (inhl 4-hour vapor) rat	No data

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

**Reproductive Toxicity:** This substance has not been fully investigated to provide any information.

**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

**Terrestrial Fate:** This substance has not been fully investigated to provide any information.

**Aquatic Fate:** This substance has not been fully investigated to provide any information.

## 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.

## 14. Transport Information

SHIPPING CRITERIA	US DOT	IATA
Proper Shipping Name	Corrosive liquid, toxic, n.o.s. (Methylene Iodide)	Corrosive liquid, toxic, n.o.s. (Methylene Iodide)
Hazard Class	Class 8, 6.1	Class 8, 6.1
Identification Number	UN 2922	UN2922
Packing Group	PG III	PG III
Shipping Label	Corrosive, Toxic	Corrosive, Toxic
Additional Marking Requirement	Consult the 49CFR Non-Bulk and Bulk Requirements	Consult the 49CFR Non-Bulk and Bulk Requirements

## 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# 4736-60-1 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#: 200-841-5**

## Hazard Symbol



### Toxic (T)

#### Risk Description

<b>R21</b>	Harmful in contact with skin.
<b>R25</b>	Toxic if swallowed.
<b>R36/37/38</b>	Irritating to eyes, respiratory system and skin.

#### Safety Description

<b>S26</b>	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
<b>S28A</b>	After contact with skin, wash immediately with plenty of water.
<b>S36/37/39</b>	Wear suitable protective clothing, gloves and eye/face protection.
<b>S45</b>	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**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.

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**SDS Code: 163.44 GHS**

**Effective : 06/01/2015**

**Supersedes: 08/10/2000**

For Technical or Regulatory Information contact:

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