

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY

### 1.1. Product Identifier

**Product Form:** Substance

**Product Name:** Iodomethane

**CAS No:** 74-88-4

**Product Code:** VOLO10040

**Standard InChI:** InChI=1S/CH3I/c1-2/h1H3

### 1.2. Intended Use of the Product

**Use of the substance/mixture:** For laboratory research purposes.

### 1.3. Name, Address, and Telephone of the Responsible Party

#### Manufacturer

Volochem, Inc.

2600 Hilltop Dr.

Bldg B #C211

Richmond, CA 94806

T 510.748.0159

[www.volochem.com](http://www.volochem.com)

### 1.4. Emergency Telephone Number

**Emergency Number** : 510-748-0159 (9a-5p M-F)

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the Substance or Mixture

#### Classification (GHS-US)

Acute toxicity, Oral (Category 3)

Acute toxicity, Inhalation (Category 2)

Acute toxicity, Dermal (Category 3)

Skin irritation (Category 2)

Serious eye damage (Category 1)

Respiratory sensitization (Category 1)

Skin sensitization (Category 1)

Carcinogenicity (Category 2)

Specific target organ toxicity - single exposure (Category 3), Respiratory system

### 2.2. Label Elements

#### GHS-US Labeling

**Pictogram(s):** GHS06, GHS08, GHS05



**Signal word:** Danger

**Hazard statement(s)**

H301+H311 Toxic if swallowed or in contact with skin

# Iodomethane

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.

### Precautionary statement(s)

P201	Obtain special instructions before use. (Read US OSHA Occupational Health Guideline for Methyl Iodide)
P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
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.
P272	Contaminated work clothing should not be allowed out of the workplace.
P280	Wear protective gloves/eye protection/face protection.
P284	Wear respiratory protection.
P301+P330+P310	IF SWALLOWED: Rinse mouth. Immediately call a POISON CENTER or doctor/physician.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P312	Call a POISON CENTER/doctor/if you feel unwell.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/ physician.
P320	Specific treatment is urgent.
P330	Rinse mouth.
P333 + P313	If skin irritation or rash occurs: Get medical advice/ attention.
P361+P364	Remove/Take off immediately all contaminated clothing and wash before reuse.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/ container in accordance with local/regional/national/international regulations.

### 2.3. Hazards not otherwise classified (HNOC) or not covered by GHS

Vesicant. Rapidly absorbed through skin.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. Substance

Name	Synonym(s)	Product Identifiers
Iodomethane	Methyl iodide	VOLO10040 CAS-No:74-88-4 EC-No:200-819-5 Index-No:602-005-00-9-

## 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. Move out of dangerous area.

#### If inhaled

# Iodomethane

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

---

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. Take victim immediately to hospital. Consult a physician.

### **In case of eye contact**

Continue rinsing eyes during transport to hospital. 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. Indication of Any Immediate Medical Attention and Special Treatment Needed**

Burning sensation, cough, wheezing, laryngitis, shortness of breath, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

## **SECTION 5: FIREFIGHTING MEASURES**

### **5.1. Extinguishing Media**

**Suitable Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **5.2. Special Hazards Arising From the Substance or Mixture**

**Fire Hazard:** Product is flammable. Fire conditions may release toxic gases.

**Explosion Hazard:** Product is not explosive.

**Hazardous Combustion Products:** Carbon oxides, iodine and hydrogen iodide.

### **5.3. Advice for Firefighters**

**Firefighting Instructions:** Exercise caution when fighting any chemical fire.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

Wear self contained breathing apparatus for fire fighting if necessary.

### **5.4. NFPA Rating**

<b>Health hazard:</b>	4
<b>Fire:</b>	0
<b>Reactivity Hazard:</b>	1

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **6.1. Personal Precautions, Protective Equipment and Emergency Procedures**

#### **6.1.1. For Non-emergency Personnel**

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

#### **6.1.2. For Emergency Responders**

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Ventilate area.

### **6.2. Environmental Precautions**

Prevent entry to sewers and public waters.

### **6.3. Methods and Material for Containment and Cleaning Up**

**For Containment:** Contain and collect as any solid.

**Methods for Cleaning Up:** Collect spillage. Avoid generation of dust during clean-up of spills. Clear up spills immediately and dispose of waste safely.

### **6.4. Reference to Other Sections**

See heading 8, Exposure Controls and Personal Protection.

# Iodomethane

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 7: HANDLING AND STORAGE

#### 7.1. Precautions for Safe Handling

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

#### 7.2. Conditions for Safe Storage, Including Any Incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Light sensitive. Moisture sensitive.

#### 7.3. Specific End Use(s) For laboratory research purposes

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1. Control Parameters

Component	CAS-No.	Value	Control Parameters	Basis
Methyl iodide	74-88-4	TWA (skin)	2 ppm 10 mg/m <sup>3</sup>	USA. OSHA PEL (1989)
		TWA (skin)	5 ppm 28 mg/m <sup>3</sup>	USA. OSHA Permissible Exposure Limits
		TWA (skin)	2 ppm 10 mg/m <sup>3</sup>	USA. NIOSH Recommended Exposure Limits
		IDLH	100 ppm	NIOSH
		TLV	2 ppm	ACGIH (1993-1994)

#### 8.2. Exposure Controls

##### Appropriate Engineering Controls:

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Avoid high vapor concentration. Ensure adequate ventilation, especially in confined areas.

##### Personal Protective Equipment:

Gloves. Protective goggles. Insufficient ventilation: wear respiratory protection.



##### Hand 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

##### Eye Protection:

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Respiratory Protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

##### Skin and body protection:

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.

# Iodomethane

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### Hygiene measures:

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on Basic Physical and Chemical Properties

Physical State:	Liquid
Appearance:	no data available
Odor:	no data available
Odor Threshold:	no data available
pH:	no data available
Relative Evaporation Rate (butylacetate=1):	no data available
Melting Point:	-64 °C (-83 °F)
Boiling Point:	41 - 43 °C (106 - 109 °F)
Flash Point:	no data available
Auto-ignition Temperature:	no data available
Decomposition Temperature:	no data available
Flammability (solid, gas):	no data available
Vapor Pressure:	544 hPa (408 mmHg) at 20 °C (68 °F) 1,660 hPa (1,245 mmHg) at 55 °C (131 °F)
Relative Vapor Density at 20 °C:	4.90 - (Air = 1.0)
Relative Density:	2.28 g/cm <sup>3</sup> at 25 °C (77 °F)
Specific Gravity:	no data available
Solubility:	14 g/L at 20 °C (68 °F)
Log Pow:	1.5 at 20 °C (68 °F)
Log Kow:	no data available
Viscosity, Kinematic:	no data available
Viscosity, Dynamic:	no data available
Explosive Properties:	no data available
Oxidizing Properties:	no data available
Explosive Limits:	8.5 % - 66% (V)

### 9.2. Other Information

## SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity:	No data available
10.2. Chemical Stability:	Product is stable under recommended storage conditions. Contains copper as a stabilizer.
10.3. Possibility of Hazardous Reactions:	No data available
10.4. Conditions to Avoid:	Heat, light, and moisture.
10.5. Incompatible Materials:	Strong oxidizing agents, strong bases, oxygen.
10.6. Hazardous Decomposition Products:	Carbon oxides, iodine and hydrogen iodide.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information On Toxicological Effects

Acute Toxicity:	ORAL LD50 LD50 Oral - rat - 76 mg/kg Inhalation LC50
-----------------	--

# Iodomethane

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

LC50 Inhalation - rat - 4 h - 1,300 mg/m<sup>3</sup>

### Dermal LD50

LD50 Dermal - guinea pig - 800 mg/kg

### Other information on acute toxicity

No data available

#### Skin Corrosion/Irritation:

Skin – rabbit Result: Causes severe burns.

#### Serious Eye Damage/Irritation:

Eyes - rabbit Result: Risk of serious damage to eyes.

#### Respiratory or Skin Sensitization:

No data available

#### Germ Cell Mutagenicity:

No data available

#### Carcinogenicity:

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans  
(Methyl iodide)

#### Reproductive Toxicity:

No data available

#### Specific Target Organ Toxicity (Single Exposure):

No data available

#### Specific Target Organ Toxicity (Repeated Exposure):

No data available

#### Aspiration Hazard:

No data available

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

no data available

### 12.2. Persistence and Degradability

Biodegradability aerobic - Exposure time 28 d

Result: 16 % - Not readily biodegradable.

(Closed Bottle test)

### 12.3. Bioaccumulative Potential

No data available

### 12.4. Mobility in Soil

No data available

### 12.5. Other Adverse Effects

No data available

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1. Waste treatment methods

#### Waste Disposal Recommendations:

Contact a licensed professional waste disposal service to dispose of this material.  
Dispose of waste material in accordance with all local, regional, national, and international regulations.

# Iodomethane

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

### SECTION 14: TRANSPORT INFORMATION

In Accordance With ICAO/IATA/IMDG/DOT

<b>14.1. UN Number</b>	2644
<b>14.2. UN Proper Shipping Name</b>	Methyl iodide
<b>14.3. Transport hazard class(es)</b>	6.1
<b>14.4. Packing group</b>	I
<b>14.5.1. Marine Pollutant</b>	No
<b>14.5.2. Reportable Quantity</b>	45.4 kg
<b>14.6.1. Toxic Inhalation Hazard</b>	Hazard Zone B
<b>14.6.2. Mode specific comments</b>	
<b>14.6.3. Ground transportation - DOT (US)</b>	
<b>14.6.4. Marine transportation - IMDG</b>	EMS-No: F-A, S-A
<b>14.6.5. Air transportation - IATA/ICAO</b>	FORBIDDEN

### SECTION 15: REGULATORY INFORMATION

#### 15.1. US Federal Regulations

##### EPA TSCA Inventory

Listed

##### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

##### SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

Methyl iodide CAS-No. 74-88-4

##### SARA 311/312 Components

Acute Health Hazard, Chronic Health Hazard

#### 15.2. US State Regulations

##### California Prop. 65 List 2014

WARNING! This product contains a chemical known to the State of California to cause cancer.

Methyl iodide CAS No. 74-88-4

##### Maine Chemicals of High Concern List 2012

Not listed

##### Massachusetts Right to Know Hazardous Substance List 2014

Listed

##### New Jersey Right to Know Hazardous Substance List 2010

Listed

##### Pennsylvania Right to Know Hazardous Substance List 2010

Listed

### SECTION 16: OTHER INFORMATION

#### 16.1. Other Classifications

##### HMIS

Health Hazard: 3

Flammability: 0

Physical hazards: 0

# Iodomethane

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

---

### 16.2. References

International Chemical Safety Card

0509 (Validated June 8, 2012)

**Revision date** : 3/14/2015

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

*Volochem chemicals are for research purposes only and are NOT intended for use as drugs, food additives, household goods, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its affiliates or subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. Our SDS are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated SDS for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, face mask, fume hood). For proper handling and disposal, always comply with federal, state and local regulations.*

SDS US (GHS HazCom) - US Only