



SAFETY DATA SHEET

Preparation Date: 3/27/2018

Revision Date: 3/27/2018

Revision Number: G1

1. IDENTIFICATION

Product identifier

Product code: M1605
Product Name: METHYL IODIDE

Other means of identification

Synonyms:
Iodomethane
Iodometano (Italian)
Iodure de methyle (French)
Jod-methan (German)

CAS #: 74-88-4
RTECS #: PA9450000
CI#: Not available

Recommended use of the chemical and restrictions on use

Recommended use: No information available.
Uses advised against: No information available

Supplier: Spectrum Chemical Mfg. Corp
14422 South San Pedro St.
Gardena, CA 90248
(310) 516-8000

Order Online At:

<https://www.spectrumchemical.com>

Emergency telephone number

Chemtrec 1-800-424-9300

Contact Person:

Martin LaBenz (West Coast)

Contact Person:

Ibad Tirmiz (East Coast)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Considered a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Acute toxicity - Oral	Category 3
Acute toxicity - Dermal	Category 3
Acute toxicity - Inhalation (Vapors)	Category 2
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A

Label elements

Danger

Hazard statements

Fatal if inhaled
Toxic if swallowed

Toxic in contact with skin
Causes skin irritation
Causes serious eye irritation



Hazards not otherwise classified (HNOC)

Not Applicable

Other hazards

Not available

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection

Precautionary Statements - Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of water
Remove/Take off immediately all contaminated clothing
Wash contaminated clothing before reuse
If skin irritation occurs: Get medical advice/attention
IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

Precautionary Statements - Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %
Methyl Iodide	74-88-4	100

4. FIRST AID MEASURES

First aid measures

General Advice:	National Capital Poison Center in the United States can provide assistance if you have a poison emergency and need to talk to a poison specialist. Call 1-800-222-1222. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. First aider needs to protect himself.
Skin Contact:	Toxic in contact with skin. Wash off immediately with soap and plenty of water. Remove all contaminated clothes and shoes. Continue flushing with plenty of water for at least 15 minutes. Immediate medical attention is required. Call a physician or Poison Control Centre immediately.
Eye Contact:	Flush eyes with water for 15 minutes. Get medical attention.
Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
Ingestion:	Toxic if swallowed. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms	Causes skin irritation Moderately irritating to the skin Skin rash Redness and burning sensation on skin Causes serious eye irritation Moderately irritating to the eyes Irritating to respiratory system May cause coughing and shortness of breath May cause build-up of fluid in the lungs (pulmonary edema) Central nervous system effects Central nervous system depression Causes digestive (gastrointestinal) tract irritation May cause abdominal pain, nausea, vomiting, diarrhea It may affect the kidneys May cause iodism May cause thyroid hypofunction (hypothyroidism) Hypothyroidism may result in goiter May cause metallic taste May cause salivation
-----------------	---

Indication of any immediate medical attention and special treatment needed

Notes to Physician:	Treat symptomatically.
----------------------------	------------------------

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste.

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media:

Carbon dioxide (CO₂). Dry chemical. Water spray mist or foam.

Unsuitable Extinguishing Media:

No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products:

If it is involved in a fire the following can be released: Hydrogen iodide, Carbon Monoxide, Carbon Dioxide.

Specific hazards:

May be combustible at high temperatures.

Special Protective Actions for Firefighters

Specific Methods:

No information available.

Special Protective Equipment for Firefighters:

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions:

Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Avoid contact with skin, eyes and clothing. Wear personal protective equipment. Remove all sources of ignition.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment

Stop leak if you can do it without risk. Absorb spill with inert material (e.g. vermiculite, dry sand or earth). In case of large spill, dike if needed. Dike far ahead of liquid spill for later disposal.

Methods for cleaning up

Use appropriate tools to put the spilled material in a suitable chemical waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions:

Provide sufficient air exchange and/or exhaust in work rooms. Avoid dust formation. Keep away from incompatible materials.

Safe Handling Advice

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Use only in well-ventilated areas. Do not ingest. Do not breathe vapors or spray mist. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions:

Sensitive to light. Store in light-resistant containers. Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store in a segregated and approved area. Store away from incompatible materials.

Incompatible Materials:

Oxidizing agents
Strong acids

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

Components	CAS-No.	OSHA	NIOSH	ACGIH	AIHA WEEL
Methyl Iodide	74-88-4	5 ppm TWA 28 mg/m ³ TWA	2 ppm TWA 10 mg/m ³ TWA	2 ppm TWA	None

Canada

Components	CAS-No.	Canada - Alberta	Canada - British Columbia	Canada - Ontario	Canada - Quebec
Methyl Iodide	74-88-4	2 ppm TWA 12 mg/m ³ TWA	2 ppm TWA	None	None

Australia and Mexico

Components	CAS-No.	Australia	Mexico
Methyl Iodide	74-88-4	2 ppm TWA 12 mg/m ³ TWA	2 ppm TWA 10 mg/m ³ TWA 5 ppm STEL 30 mg/m ³ STEL

Appropriate engineering controls

Engineering measures to reduce exposure:

Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors and mist below their respective threshold limit value.

Individual protection measures, such as personal protective equipment

Personal Protective Equipment

Eye protection: Goggles

Skin and body protection: Long sleeved clothing
Chemical resistant apron
Gloves

Respiratory protection: Vapor respirator. Be sure to use an approved/certified respirator or equivalent.

Hygiene measures: Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:
Liquid

Appearance:
No information available.

Color:
Colorless.

Odor:
Pungent. Ether-like.

Taste:
No information available.

Formula:
CH₃I

Molecular/Formula weight:
141.95

Flammability:
No information available

Flashpoint (°C/°F):
No information available.

Flash Point Tested according to: Not available	Autoignition Temperature (°C/°F): No information available	Lower Explosion Limit (%): No information available
Upper Explosion Limit (%): No information available	Melting point/range(°C/°F): -66.5 °C/-87.7 °F	Decomposition temperature(°C/°F): No information available
Boiling point/range(°C/°F): 42.5 °C/108.5 °F	Bulk density: No information available	Density (g/cm3): No information available
Specific gravity: 2.28	pH: No information available	Vapor pressure @ 20°C (kPa): 53-54
Evaporation rate: No information available	Vapor density: 4.9	VOC content (g/L): No information available
Odor threshold (ppm): No information available	Partition coefficient (n-octanol/water): log Kow = 1.5	Viscosity: No information available
Miscibility: Miscible with Ether Miscible with alcohol	Solubility: Soluble in Acetone Soluble in Carbon tetrachloride Solubility in Water: 13.6 -13.9 g/l @ 20 deg. C	

10. STABILITY AND REACTIVITY

Reactivity

No information available

Chemical stability

Stability: Stable under recommended storage conditions. Sensitive to light. Turns brown on exposure to light.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur

Conditions to avoid: Heat. Ignition sources. Exposure to light. Incompatible materials.

Incompatible Materials: Oxidizing agents
Strong acids

Hazardous decomposition products: No information available.

Other Information

Corrosivity: No information available

Special Remarks on Corrosivity: No information available

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Skin. Ingestion. Inhalation.

Acute Toxicity

Component Information

Methyl Iodide	
CAS-No.	74-88-4

LD50/oral/rat = 51 mg/kg Oral LD50 Rat = 76 mg/kg Oral LD50 Rat

LD50/oral/mouse = No information available

LD50/dermal/rabbit = >2000 mg/kg Dermal LD50 Rabbit

LD50/dermal/rat = No information available

LC50/inhalation/rat = 1300 mg/m³ Inhalation LC50 Rat 4 h

LC50/inhalation/mouse = No information available

Other LD50 or LC50 information = 800 mg/kg dermal LD50 Guinea Pig

Product Information

LD50/oral/rat =

Value- Acute Tox Oral = 51 mg/kg

LD50/oral/mouse =

Value - Acute Tox Oral = No information available

LD50/dermal/rabbit

Value-Acute Tox Dermal = > 2000 mg/kg

LD50/dermal/rat

Value -Acute Tox Dermal = No information available

LC50/inhalation/rat

Value-Vapor = 1.3 mg/l (4-hr)

Value-Gas = No information available

Value-Dust/Mist = No information available

LC50/inhalation/mouse

Value-Vapor = No information available

Value - Gas = No information available

Value - Dust/Mist = No information available

Symptoms

Skin Contact:

Toxic in contact with skin. Causes skin irritation. Can cause rash and burning feeling on contact. Blisters may form several hours later. If absorbed through skin it may cause systemic effects. May be absorbed through the skin in harmful amounts.

Eye Contact:

Causes serious eye irritation.

Inhalation

Fatal if inhaled. Can cause respiratory tract irritation with coughing and/or shortness of breath. Higher exposures can cause a build-up of fluid in the lungs (pulmonary edema), with severe shortness of breath. Inhalation may also affect behavior/Central Nervous System (CNS depressant - symptoms including giddiness, dizziness, ataxia, sleepiness, irritability, drowsiness, incoordination, slurred speech, muscular twitching, mental disorders). It may also cause visual disturbances. May cause gastrointestinal tract irritation with nausea, vomiting, and diarrhea.

Ingestion

Toxic if swallowed. Causes digestive (gastrointestinal) tract irritation. May cause abdominal pain, nausea, vomiting, diarrhea.

Aspiration hazard

No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity

Prolonged exposure to iodides may result in "Iodism" which is characterized by skin rash, runny nose, headache, increased salivation, metallic taste, nausea, vomiting, epigastric pain, diarrhea, bronchitis, laryngitis, stomatitis, fever, conjunctivitis, and irritation of the mucous membranes and anemia. In severe cases, the skin may show pimples, boils, redness, black and blue spots, hives and blisters. It may also affect the thyroid gland (goiter, hypothyroidism). Chronic exposure may affect the kidneys and cause kidney damage. Repeated or chronic exposure to Methyl Iodide may affect the brain (central nervous system) leading to disorientation, personality or mood changes (especially irritability and social withdrawal) as well as changes in sleeping patterns, headaches and fatigue, changes in memory, concentration.

Sensitization:

No information available.

Mutagenic Effects:

Mutations in microorganisms

Experiments with bacteria and/or yeast have shown mutagenic effects

Mutation in Mammalian Somatic Cells - hamster ovary

Mutagenic effects in mammalian somatic cells

Carcinogenic effects:

Not classifiable as to its carcinogenicity to humans.

Components	CAS-No.	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Notifiable Carcinogenic Substances	Australia - Prohibited Carcinogenic Substances
Methyl Iodide	74-88-4	Group 3 - Not Classifiable - Monograph 71 [1999] Supplement 7 [1987] Monograph 41 [1986]	Not listed	Not listed	Not listed	Not listed	Not listed

ACGIH (American Conference of Governmental Industrial Hygienists)

IARC (International Agency for Research on Cancer)

NTP (National Toxicology Program)

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

Reproductive toxicity

No data is available

Reproductive Effects:

No information available

Developmental Effects:

No information available

Teratogenic Effects:

No information available

Specific Target Organ Toxicity

STOT - single exposure

No information available.

STOT - repeated exposure

No information available.

Target Organs:

No information available.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity effects:

No data available.

Persistence and degradability: No information available

Bioaccumulative potential: Potential for bioconcentration in aquatic organisms is low.

Mobility: It is expected to have high mobility in soil.

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	CAS-No.	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Methyl Iodide	74-88-4	None	None	None	U138

14. TRANSPORT INFORMATION

DOT

UN-No:	UN2644
Proper Shipping Name:	Methyl iodide
Hazard Class:	6.1
Subsidiary Class	No information available
Packing group:	I
Emergency Response Guide Number	151
Marine Pollutant	No data available
DOT RQ (lbs):	No information available
Special Provisions	2, B9, B14, B32, T20, TP2, TP13, TP38, TP45 Special Provision 2 = This material is poisonous by inhalation in Hazard Zone B
Symbol(s):	No information available
Description:	UN2644, Methyl iodide, 6.1, I

TDG (Canada)

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Marine Pollutant	No Information available
Description:	Forbidden

ADR

UN-No:	UN2644
Proper Shipping Name:	Methyl iodide
Hazard Class:	6.1
Packing Group:	I
Subsidiary Risk:	No information available
Special Provisions	354
Description:	UN2644, Methyl iodide, 6.1, I

IMO / IMDG

UN-No:	UN2644
Proper Shipping Name:	Methyl iodide
Hazard Class:	6.1
Subsidiary Risk:	No information available
Packing Group:	I
Marine Pollutant	No information available
EMS:	F-A
Special Provisions	354
Description	UN2644, Methyl iodide, 6.1, I

RID

UN-No:	UN2644
Proper Shipping Name:	Methyl iodide
Hazard Class:	6.1
Subsidiary Risk:	No information available
Packing Group:	I
Special Provisions	354
Description:	UN2644, Methyl iodide, 6.1, I

ICAO

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
Description:	Forbidden

IATA

UN-No:	Not Regulated
Proper Shipping Name:	No information available
Hazard Class:	No information available
Subsidiary Risk:	No information available
Packing Group:	No information available
ERG Code:	No information available
Special Provisions	No information available
Description:	Forbidden

15. REGULATORY INFORMATION

International Inventories

Components	CAS-No.	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
Methyl Iodide	74-88-4	Present ACTIVE	Present KE-21038	Present	Present (2)-42	Present	Present	Present 200-819-5

U.S. Regulations

Methyl Iodide

Massachusetts RTK: Present(carcinogen; Extraordinarily hazardous)

New Jersey RTK Hazardous Substance List: sn 1266

New Jersey (EHS) List: SN 1266 500 lb TPQ

New Jersey - Discharge Prevention - List of Hazardous Substances: Present

New Jersey TCPA - EHS: 2900lbTQ

Pennsylvania RTK: Environmental hazard

Special hazardous substance

Pennsylvania RTK - Environmental Hazard List Present

Pennsylvania RTK - Special Hazardous Substances Present

Minnesota - Hazardous Substance List: Present

New York Release Reporting - List of Hazardous Substances:

100 lb RQ

1 lb RQ

Louisiana Reportable Quantity List for Pollutants: Listed

California Directors List of Hazardous Substances: Present

California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

Chemicals Known to the State of California to Cause Cancer:

⚠ WARNING: This product can expose you to chemicals including (see table below) which is (are) known to the State of California to cause cancer. For more information go to www.p65warnings.ca.gov.

Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	CAS-No.	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
Methyl Iodide	74-88-4	carcinogen	Not Listed	Not Listed	Not Listed

CERCLA/SARA

Components	CAS-No.	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting de minimis
Methyl Iodide	74-88-4	100 lb final RQ 45.4 kg final RQ	None	None	None	1.0 % de minimis concentration

U.S. TSCA

Components	CAS-No.	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Methyl Iodide	74-88-4	Not Applicable	Not Applicable

Canada

WHMIS 2015 - GHS Classifications

WHMIS 2015 Hazard Classification

Information:

Component
Methyl Iodide
74-88-4 (100)

WHMIS 2015 Hazard Classification
Acute toxicity - Oral - Category 3: H301 Toxic if swallowed.; Acute toxicity - Inhalation - Category 2: H330 Fatal if inhaled.; Skin corrosion/irritation - Category 2: H315 Causes skin irritation.; Serious Eye Damage/Eye Irritation - Category 2A: H319 Causes serious eye irritation.; Specific target organ toxicity - Single exposure - Category 3: H336 May cause drowsiness or dizziness.

Canada Hazardous Products Regulation This product has been classified according to the hazard criteria of the HPR (Hazardous Products Regulation) and the SDS contains all of the information required by the HPR

WHMIS 1988 Hazard Class

The classification of this product has not been validated yet

Canada Controlled Products Regulation:

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Components	WHMIS Ingredient Disclosure List -
Methyl Iodide	0.1 %

Inventory

Product code: M1605

Product name: METHYL IODIDE

11 / 13

Components	CAS-No.	Canada (DSL)	Canada (NDSL)
Methyl Iodide	74-88-4	Present	Not Listed

Components	CAS-No.	CEPA Schedule I - Toxic Substances
Methyl Iodide	74-88-4	Not listed
Components	CAS-No.	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Methyl Iodide	74-88-4	Not listed

EU Classification

EU GHS - SV - CLP 1272/2008

Components	CAS-No.	EU GHS - SV - CLP (1272/2008)
Methyl Iodide	74-88-4	Acute toxicity - Oral - Acute Tox. 3: H301 Toxic if swallowed. (Minimum classification); Acute toxicity - Dermal - Acute Tox. 4: H312 Harmful in contact with skin. (Minimum classification); Acute toxicity - Inhalation - Acute Tox. 3: H331 Toxic if inhaled. (Minimum classification); Skin corrosion/irritation - Skin Irrit. 2: H315 Causes skin irritation.; Carcinogenicity - Carc. 2: H351 Suspected of causing cancer.; Specific target organ toxicity - Single exposure - STOT SE 3: H335 May cause respiratory irritation.602-005-00-9

EU - CLP (1272/2008)

R-phrase(s)

R21 - Harmful in contact with skin.
 R40 - Limited evidence of a carcinogenic effect
 R23/25 - Toxic by inhalation and if swallowed.
 R37/38 - Irritating to respiratory system and skin.

S -phrase(s)

S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S38 - In case of insufficient ventilation, wear suitable respiratory equipment.
 S 1/2 - Keep locked up and out of the reach of children.
 S36/37 - Wear suitable protective clothing and gloves.

Components	CAS-No.	Classification	Concentration Limits:	Safety Phrases
Methyl Iodide	74-88-4	Xn; R21 T; R23/25 Xi; R37/38 Carc.Cat.3; R40	No information	S: (1/2)-36/37-38-45

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Indication of danger:

T - Toxic
 Xn - Harmful.
 Xi - Irritant.



16. OTHER INFORMATION

Preparation Date: 3/27/2018
Revision Date: 3/27/2018
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet