

SAFETY DATA SHEET



according to Regulation (EC) No 1907/2006 (REACH) as amended

METHYL IODIDE

Creation date 20th December 2022
Revision date Version 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

METHYL IODIDE
Substance / mixture substance
Chemical name methyl iodide
CAS number 74-88-4
Index number 602-005-00-9
EC (EINECS) number 200-819-5

1.2. Relevant identified uses of the substance or mixture and uses advised against

Substance's intended use

Laboratory chemicals. Chemical intermediate and methylating agent in the production of substances. For industrial use.

Process category (PROC)

PROC 1: Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions

Sector of end use

SU 8: Manufacture of bulk, large scale chemicals (including petroleum products)

SU 9: Manufacture of fine chemicals

Substance uses advised against

not available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Name or trade name Vinyl Kft.
Address Adler Károly u. 19., Miskolc, 3524
Hungary
Phone +3646432633
E-mail ehsq@vinyl.hu

1.4. Emergency telephone number

Toxicology Information Center (TOXIKOLÓGIAI INFORMÁCIÓS KÖZPONT), Address: 1097 Budapest, Nagyvárad tér 2., Hungary, tel. +36 80 20 11 99, (0-24 hours).

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification of the substance in accordance with Regulation (EC) No 1272/2008

The substance is classified as dangerous.

Acute Tox. 3, H301+H331

Acute Tox. 4, H312

Skin Irrit. 2, H315

STOT SE 3, H335

Carc. 2, H351

Full text of all classifications and hazard statements is given in the section 16.

2.2. Label elements

Hazard pictogram



Signal word

Danger

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Dangerous substance

methyl iodide

(Index: 602-005-00-9; CAS: 74-88-4)

Hazard statements

H312	Harmful in contact with skin.
H315	Causes skin irritation.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H301+H331	Toxic if swallowed or if inhaled.

Precautionary statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P352	IF ON SKIN: Wash with plenty of water and soap.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTRE/doctor if you feel unwell.
P405	Store locked up.

Requirements for child-resistant fastenings and tactile warning of danger

Container must carry a tactile warning of danger. Container must be fitted with child-resistant fastening.

2.3. Other hazards

Vesicant. Rapidly absorbed through skin.
Iodomethane is not classified as PBT/vPvB.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical characterization

Description: mono-constituent substance, organic.

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
Index: 602-005-00-9 CAS: 74-88-4 EC: 200-819-5	substance main component methyl iodide	>99	Acute Tox. 3, H301+H331 Acute Tox. 4, H312 Skin Irrit. 2, H315 STOT SE 3, H335 Carc. 2, H351	

Full text of all classifications and hazard statements is given in the section 16.

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.
- If breathing is difficult, give oxygen.
- First aider needs to ensure self-protection!
- Consult a physician.

If on skin

- Remove contaminated clothing immediately.
- Wash the skin with soap and water.
- Seek medical advice.

If in eyes

- In case of contact with eyes flush with plenty of flowing water holding eyelids apart and moving the eyeballs (for at least 15 minutes).
- Obtain medical help.

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If swallowed

- Never give an unconscious person anything by mouth.
- Rinse mouth thoroughly with water.
- Seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

If inhaled

Irritating to respiratory system and skin; can damage the lungs. May cause coughing, sore throat.

If on skin

Irritating to respiratory system and skin; can damage the lungs. May cause skin or eye pain and redness.

If in eyes

May cause eye contact burns and conjunctivitis.

If swallowed

Harmful if swallowed. Causes gastrointestinal irritation, toxic effects on the liver and kidneys. May cause nausea, dizziness, headache, blurred vision, weakness, drowsiness, ataxia, confusion, spasms, narcosis, cause pulmonary oedema.

The effects (in particular the diseases of the central nervous system) may even occur after several days or weeks after exposure.

4.3. Indication of any immediate medical attention and special treatment needed

not available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray, alcohol-resistant foam, dry chemical or carbon dioxide. The material is not combustible. Use agent most appropriate to extinguish surrounding fire.

Unsuitable extinguishing media

Not known.

5.2. Special hazards arising from the substance or mixture

Will decompose at high temperatures by generating hazardous substances (hydrogen iodide, carbon oxides, toxic fumes), reacts violently with oxygen, represents a risk of explosion.

5.3. Advice for firefighters

Use water spray to cool unopened containers. Use self-contained breathing apparatus and suitable protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Keep unprotected people away, allow only well trained experts wearing suitable protective clothing to abide in the field of accident. Use proper personal protective equipment as listed in section 8.

For emergency responders: Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate the area of all non-essential personnel.

6.2. Environmental precautions

Dispose of spillage and waste (product/packaging) in accordance with all applicable environmental laws. Do not allow the substance and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

6.3. Methods and material for containment and cleaning up

Collect the spilled material with non-combustible inert absorbent, then place into a suitable chemical waste container for removal/disposal.

6.4. Reference to other sections

For further and detailed information see section 8 and 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Observe conventional hygiene precautions. Obtain special instructions before use. Read all safety precautions and understand. Avoid contact with eyes and skin. Avoid breathing mist/vapours. Do not eat or smoke during work time or at the application site. Wash hands before breaks and at end of work. Remove contaminated clothing immediately. Wash the skin with plenty of water. Handle in accordance with good industrial hygiene and safety practices.

Technical measures: In relation to the use at work a professional risk assessment must be carried out.

Precautions against fire and explosion: No special measures required.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage condition: Store in cool, dry, well-ventilated area away from sources of heat and direct sunlight. Keep container tightly closed.

Incompatible materials: none known.

Packaging material: no special prescriptions.

7.3. Specific end use(s)

Laboratory chemicals. Chemical intermediate and methylating agent in the production of substances. For industrial use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limit values:

8.2. Exposure controls

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

Appropriate engineering controls: In pursuance of work is proper foresight needed to avoid leaking onto clothes and floors and to avoid contact with eyes and skin. The work area should be well-ventilated. Safety shower, quick-drench eyewash should be available.

Individual protection measures, such as personal protective equipment: Do not smoke, drink or eat in areas where this product is stored or handled. Avoid contact with skin, eyes or clothing. Wash hands before and immediately after handling the product. Remove contaminated clothing. Wash off affected skin with plenty of water. Handle in accordance with good industrial hygiene and safety practice.

Eye/face protection

Use appropriate face shield or tightly fitting safety goggles (EN 166).

Skin 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.

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. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator with multi-purpose combination (US) or type AXBEK (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).

Thermal hazard

Not known.

Environmental exposure controls

Do not allow into drains, watercourses or the ground. At the place of use of the material, a risk assessment must be carried out. The requirements detailed in Section 8 assume skilled work under normal

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless*
Odour	sweet, pungent
Melting point/freezing point	-66 °C
Boiling point or initial boiling point and boiling range	41-43 °C
Flammability	data not available
Lower and upper explosion limit	
bottom	8.5 %
upper	66 %
Flash point	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	data not available
Kinematic viscosity	data not available
Solubility in water	14 - 20 g/l 20 °C
Partition coefficient n-octanol/water (log value)	log Pow: 1,51- 1,69 / 20 °C
Vapour pressure	50 - 54 kPa at 20 °C
Density and/or relative density	
Density	2.28 g/cm ³ at 25 °C
Relative vapour density	data not available
Particle characteristics	data not available

9.2. Other information

Viscosity: 0,5 mPa.s; 0,606 cp 0 °C
Solubility(ies): soluble in Ethanol, Ether 20 °C
*: Yellowed by moisture; exposure to light: red and brown.
The relative density of the vapor / air mixture (air = 1): 2.9 (20 °C)
Refractive index: 1.529 to 1.531

SECTION 10: Stability and reactivity

10.1. Reactivity

None known.

10.2. Chemical stability

At normal temperature and general conditions of work stabile.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

Direct sunlight and humidity.

10.5. Incompatible materials

Strong oxidizing agents, strong bases, oxygen, silver chlorite, sodium- and trialkylphosphines.

10.6. Hazardous decomposition products

Carbon monoxide, irritating and toxic fumes and gases (carbon dioxide, hydrogen iodide, iodine).

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

No toxicological test data are available for the product, so we provide the available toxicological test data for its individual components.

Acute toxicity

Toxic if swallowed or if inhaled. Harmful in contact with skin.

LD50 Rat, oral 76 mg/kg
LD50 Guinea pig, dermal 800 mg/kg
LC50 Rat, inhalativ 1300 mg/m³/4 h

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Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Based on available data, the classification criteria are not met.

Carcinogenicity

Suspected of causing cancer.

Reproductive toxicity

Based on available data, the classification criteria are not met.

Toxicity for specific target organ - single exposure

May cause respiratory irritation.

Toxicity for specific target organ - repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

11.2. Information on other hazards

not available

SECTION 12: Ecological information

12.1. Toxicity

Acute toxicity

12.2. Persistence and degradability

The aerobic biodegradability was examined in a closed cup with an exposure time of 28 days. It was observed that 16% of the material is not readily biodegradable.

12.3. Bioaccumulative potential

not available

12.4. Mobility in soil

not available

12.5. Results of PBT and vPvB assessment

Iodomethane is not classified as PBT/vPvB.

12.6. Endocrine disrupting properties

There is no further relevant information.

12.7. Other adverse effects

There is no further relevant information.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal according to the local regulations.

Information regarding the disposal of the product: No special recommendation from the manufacturer. Residues, contaminated product and not reusable solutions should be disposed of via a licensed disposal company. The packaging of this product must be treated accordingly. The collected material should be disposed of as hazardous waste. Do not empty into drains.

European Waste Code: No appropriate EWC code can be given for the substance, since the identification of the proper code can be done with the method of use defined by the user of the substance. The European waste code number has to be determined after a discussion with a specialist dealing with waste disposal.

Information regarding the disposal of the packaging: Dispose according to the relevant regulations.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Directive (EU) 2018/852 of the European Parliament and of the Council of 30 May 2018 amending Directive 94/62/EC on packaging and packaging waste.

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SECTION 14: Transport information

14.1. UN number or ID number

UN 2644

14.2. UN proper shipping name

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14.3. Transport hazard class(es)

6.1 Toxic substances

14.4. Packing group

I - substances presenting high danger

14.5. Environmental hazards

Marine pollutant: no.

14.6. Special precautions for user

ADR Tunnel restriction code: C/D, toxic by inhalation, IMDG EmS: F-A, S-A,

14.7. Maritime transport in bulk according to IMO instruments

Not applicable.

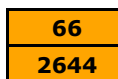
Additional information

Hazard identification No.

UN number

Classification code

Safety signs



T1

6.1



Marine transport - IMDG

EmS (emergency plan)

F-A, S-A

SECTION 15: Regulatory information

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

COMMISSION REGULATION (EU) 2017/605 of 29 March 2017 amending Annex VI to Regulation (EC) No 1005/2009 of the European Parliament and of the Council on substances that deplete the ozone layer. COMMISSION IMPLEMENTING REGULATION (EU) 2017/1375 of 25 July 2017 amending Implementing Regulation (EU) No 1191/2014 determining the format and means for submitting the report referred to in Article 19 of Regulation (EU) No 517/2014 of the European Parliament and of the Council on fluorinated greenhouse gases. Commission Directive 2008/47/EC of 8 April 2008 amending, for the purposes of adapting to technical progress, Council Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers.

15.2. Chemical safety assessment

No information available.

SECTION 16: Other information

A list of standard risk phrases used in the safety data sheet

H312 Harmful in contact with skin.
H315 Causes skin irritation.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H301+H331 Toxic if swallowed or if inhaled.

Guidelines for safe handling used in the safety data sheet

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302+P352 IF ON SKIN: Wash with plenty of water and soap.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312 Call a POISON CENTRE/doctor if you feel unwell.
P405 Store locked up.

Other important information about human health protection

not available

Key to abbreviations and acronyms used in the safety data sheet

ADR European agreement concerning the international carriage of dangerous goods by road
AGW Occupational Exposure Limits
BCF Bioconcentration Factor
CAS Chemical Abstracts Service
CLP Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EINECS European Inventory of Existing Commercial Chemical Substances
EK Identification code for each substance listed in EINECS
EmS Emergency plan
EU European Union
EuPCS European Product Categorisation System
IATA International Air Transport Association
IBC International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
ICAO International Civil Aviation Organization
IMDG International Maritime Dangerous Goods
INCI International Nomenclature of Cosmetic Ingredients
ISO International Organization for Standardization
IUPAC International Union of Pure and Applied Chemistry
log Kow Octanol-water partition coefficient
MAK Maximum workplace concentration
MARPOL International Convention for the Prevention of Pollution from Ships
OEL Occupational Exposure Limits
PBT Persistent, Bioaccumulative and Toxic
ppm Parts per million
REACH Registration, Evaluation, Authorisation and Restriction of Chemicals
RID Agreement on the transport of dangerous goods by rail
UN Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB Substances of unknown or variable composition, complex reaction products or biological materials
VOC Volatile organic compounds
vPvB Very Persistent and very Bioaccumulative

Acute Tox. Acute toxicity
Carc. Carcinogenicity
Skin Irrit. Skin irritation
STOT SE Specific target organ toxicity - single exposure

Training guidelines

not available

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

not available

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Statement

The manufacturer of the safety data sheet and the company supplying the data sheet - without knowing the conditions of use and handling of the product - cannot be held responsible for any unforeseen damage, loss, injury, accident, or similar events resulting from non-standard use. The person performing the activity is obliged to comply with all applicable legal regulations that apply to the activity with the product.