

In accordance with Annex II of the REACH Regulation EC 1907/2006,

Regulation (EC) 1272/2008 and Regulation (EC) 453/2010

PRODUCT SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Substance name: Ethyl iodide
Synonyms: Iodoethane, Hydriodic ether, Monoiodoethane
Trade name: Ethyl iodide
CAS: 75-03-6
EINECS: 200-833-1
INDEX: -
REACH Registration number: A registration number is not available for this substance, the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses of the substance and uses advised against

Use of the substance: Laboratory chemicals. Manufacture of chemicals.

1.2.1 Identified uses

Laboratory chemicals. Manufacture of chemicals.

1.2.2 Uses advised against

No data.

1.3 Details of the supplier of the Safety Data Sheet

Name: **Vinyl Kereskedelmi Kft.**
Address: **3524 Miskolc, Adler K. u.19. HUNGARY**
Phone N°: **+36 46 432 633**
Fax N°: **+36 46 365 816**
E-mail of competent person responsible for SDS in the MS or in the EU: **Bajusz Ferenc, info@vinyl.hu**

1.4 Emergency telephone number

European Emergency N°: 112
National centre for Prevention and Treatment of Intoxications N°: **(36-1) 476-64-64, free call: 36-80-201-199**
Emergency telephone at the company: **+36 46 432 633**
Available outside office hours: Yes No

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance

2.1.1. Classification according to Regulation (EC) 1272/2008
Acute tox 4 H302
Resp. Sens 1 H334
Eye irrit 2 H319

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Skin irrit 2 H315
Skin sens 1B H317
STOT SE 3 Route of exposure: Inhalation H335

2.1.2. Classification according to Directive 67/548/EEC

Xn Harmful: R22, R36/37/38, R42/43

2.1.3. Additional information

For full text of H-statements and R-phrases: see SECTION 16

2.2. Label elements

2.2.1. Labelling according to Regulation (EC) 1272/2008

Signal word: Danger

Hazard pictogram:



GHS08
Health hazard



GHS07
Exclamation mark

Hazard statements:

H302: Harmful if swallowed.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335: May cause respiratory irritation.

Precautionary statements:

P261: Avoid breathing fume/gas/mist/vapors/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.

2.3. Other hazards

The substance does not meet the criteria for PBT or vPvB substance.
No other hazards identified.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substance

Main constituent

Name: Ethyl iodide
CAS: 75-03-6
EINECS: 200-833-1
Purity: <= 100 %

Impurities:

Hazardous impurities: to be disclosed if the impurity content is above the concentration limit for classification or above or equal to 1% (w/w).

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice

Consult a doctor/medical service. Show this safety data sheet to the doctor in attendance. The substance may be toxic to kidneys, lungs, liver and central nervous system. Repeated or prolonged exposure of the substance can produce target organs damage.

Following inhalation

If inhaled, remove to fresh air and put in half-sit position. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention. Serious inhalation: evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: it may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.

Following skin contact

In case of contact wipe carefully the affected skin. Immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention. Serious skin contact: wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Following eye contact

Check for and remove any contact lenses. In case of contact immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

After ingestion

Do NOT induce vomiting unless directed to do so by medical personnel. Give 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

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

Narcosis.

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

No data.

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SECTION 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

5.1.1. Suitable extinguishing media

Small fire: use dry chemical powder. Large fire: alcohol-resistant foam, water spray or fog, carbon dioxide.

5.1.2. Unsuitable extinguishing media

No data.

5.2. Special hazards arising from the substance or mixture

Flammable in presence of open flames and sparks, heat. Products of combustion: carbon oxides (CO, CO₂), iodide, hydrogen iodide. Vapours are heavier than air, may enrich at the floor or basement level, or in canals, sewages.

5.3. Advice for fire fighters

Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion. Special personal protective equipment: filter respirator for organic gases and vapors. If necessary, wear self-contained breathing apparatus. Remove all source of ignition.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Wear suitable personal protective clothing and equipment. Do not breathe vapour/spray. In case of insufficient ventilation wear suitable respiratory equipment. Do not ingest. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, alkalis. In case of danger remove workers to safe area, to fresh air.

6.1.2. For emergency responders

Wear suitable personal protective clothing and equipment. Do not breathe vapour/spray. In case of insufficient ventilation wear suitable respiratory equipment. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, alkalis. In case of danger remove workers to safe area, to fresh air.

6.2. Environmental precautions

Prevent entry into sewers, basements or confined areas; dike if needed.

6.3. Methods and material for containment and cleaning up

Small spill: absorb with an inert material and put the spilled material into an appropriate waste container and keep it tightly closed. The collected material must be treated as hazardous waste material.

Large spill: flammable liquid. Keep away from source of ignition. Stop leak if without risk. Absorb with dry earth, sand or other non-combustible material. Do not touch spilled material.

6.4. Reference to other sections

Information about management of hazardous waste material described see in section 13.

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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

7.1.1. Protective measures

Wear suitable personal protective clothing and equipment. Do not breathe vapour/spray. Provide exhaust ventilation.

7.1.2. Advice on general occupational hygiene

Avoid contact with skin and eyes. Do not breathe vapour/spray. In case of insufficient ventilation wear suitable personal protective respiratory equipment. Handle the substance in accordance with good industrial hygiene and safety practise. Wash hands before breaks and after work. If ingested, seek medical advice immediately and show the container or the label.

7.2. Conditions for safe storage, including any incompatibilities

Store in a segregated and approved area. Keep away from incompatibles such as oxidizing agents, strong basic substances and alkalis. Keep container tightly closed and sealed in a cool, well-ventilated area. Avoid all possible sources of ignition (spark, heat or flame). The substance is moisture and light sensitive. Store in light-resistant containers.

7.3. Specific end use(s)

No data.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

DNELs: No data.

The product does not contain any substances with occupational exposure limit values.

PNECs: No data.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Wear suitable personal protective clothing and equipment. Do not breathe vapour/spray. Vapours are heavier than air, may enrich at the floor or basement level, or in canals, sewages. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location. Handle the substance in accordance with good industrial hygiene and safety practise.

8.2.2. Individual protection measures, such as personal protective equipment

8.2.2.1. Eye/face protection

Do not wear contact lenses. Splash goggles or face shield and goggles (EN 166).

8.2.2.2. Skin protection

Exposure should be minimized. Wear lab coat, gloves (fluorinated rubber EN 374). In case of large spill: wear full suit and boots. A self contained breathing apparatus should be used to avoid inhalation of the product.

8.2.2.3. Respiratory protection

Wear vapour respirator. Be sure to use an approved / certified respirator or equivalent. Where justified on the basis of risk analysis, covering the face is combined respirator or gas mask with filter ABEK (EN 14387) gas filter cartridges should be used.

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8.2.2.4. Thermal hazards

Products of combustion: carbon oxides (CO, CO₂), iodide, hydrogen iodide.

8.2.3. Environmental exposure controls

Vapours are heavier than air, may enrich at the floor or basement level, or in canals, sewages. Risk on the site of use should be based upon the analysis.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:	Liquid
Color:	Clear colorless
Odour:	Ethereal
Odour threshold:	Not available
pH:	Not available
Melting point:	- 108 °C (-162.4 °F)
Boiling point:	72 °C (161.6 °F)
Flash point:	> 72 °C (enclosed area)
Evaporation rate:	Not available
Volatility:	100 % (v/v)
Flammability:	Not available
Explosive limits:	Not available
Vapour pressure:	18.3 kPa (20 °C); 177 hPa (25°C)
Vapour density:	5.38
Relative density:	1.95
Solubility in water:	0.4 g/100 ml (20 °C). Miscible with alcohol and most other organic solvents. Soluble in 250 parts water with gradual decomposition.
Partition coefficient:	log Pow 2.0
Auto ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available
Oxidising properties:	Not available

9.2. Other information

Chemical name and formula:	Ethane, iodo-; C ₂ H ₅ I
Molecular Weight:	155,97 g/mole

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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

The substance is unstable, reacts with oxidizing agents, strong basic substances and alkalis.

10.2. Chemical stability

The substance is unstable. Sensitive to moisture and light. If the material is exposed to light, it becomes dark in color. During combustion: carbon oxides (CO, CO₂), iodide, hydrogen iodide formed.

10.3. Possibility of hazardous reactions

The substance reacts with oxidizing agents, strong basic substances and alkalis.

10.4. Conditions to avoid

Keep away from heat, ignition sources (heat, flame, spark), light, moisture.

10.5. Incompatible materials

Oxidizing agents, strong basic substances and alkalis.

10.6. Hazardous decomposition products

Products of combustion: carbon oxides (CO, CO₂), iodide, hydrogen iodide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

a. Acute toxicity

Routes of entry: absorbed through skin, eye contact, inhalation, ingestion.

Oral	LD ₅₀ rat	330 mg/kg
Oral	LDL rabbit	300 mg/kg
Inhalation	LC50 rat	65000 mg/m ³ /0.5 hour (mist, rat)

- b. Skin corrosion/irritation: Hazardous in case of skin contact (irritant). Slightly hazardous in case of skin contact (permeator).
- c. Serious eye damage/irritation: May cause serious eye irritation.
- d. Respiratory or skin sensitisation: Hazardous in case of breathing. Irritating to respiratory system. May cause allergic respiratory and skin reactions.
- e. Germ cell mutagenicity: May affect genetic material (mutagenic).
- f. Carcinogenicity: IARC: This product does not contain at least 1 % of substance identified known or likely carcinogen by IARC.
- g. Reproductive toxicity: No data.
- h. STOT-single exposure: Irritating to respiratory system.
- i. STOT-repeated exposure: May cause damage to the following organs: kidneys, lungs, liver and central nervous system.
- j. Aspiration hazard: Hazardous in case of ingestion.

11.2 Special remarks on other effect on humans:

Acute potential health effects

Skin: Causes skin irritation and possible burns. May cause blistering of the skin. May be absorbed through the skin.

Eyes: Causes eye irritation. May cause chemical conjunctivitis and corneal damage.

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Inhalation: Inhalation of high concentrations of vapour may affect behaviour and cause central nervous system effects characterized by nausea, headache, dizziness, suffocation, unconsciousness, and coma. Causes respiratory tract irritation. May cause burning sensation in the chest. May cause liver and kidney damage. May cause narcotic effects at high concentration.

Aspiration may lead to pulmonary oedema.

Ingestion: May cause gastrointestinal tract irritation with nausea, vomiting and diarrhea. Ingestion of large doses may affect behaviour / central nervous system and cause central nervous system depression.

Chronic potential health effects

Skin: Prolonged or repeated skin contact may cause skin irritation and sensitization, an allergic reaction.

Inhalation: Chronic inhalation may cause symptoms similar to those of acute inhalation. Effect may be delayed.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Acute/Prolonged toxicity to fish

No data.

12.1.2. Acute/Prolonged toxicity to aquatic invertebrates

No data.

12.1.3. Acute/Prolonged toxicity to aquatic plants

No data.

12.1.4. Toxicity to micro-organisms e.g. bacteria

Mutagenic for bacteria and/or yeast.

12.1.5. Chronic toxicity to aquatic organisms

No data.

12.1.6. Toxicity to soil dwelling organisms

No data.

12.1.7. Toxicity to terrestrial plants

No data.

12.1.8. General effect

No data.

12.2. Persistence and degradability

No data.

12.3. Bioaccumulative potential

Possibly hazardous short/long term degradation products are to be expected. Product formed during biodegradation are less toxic than ethyl iodide.

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12.4. Mobility in soil

No data.

12.5. Results of PBT and vPvB assessment

No data.

12.6. Other adverse effects

No data.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste material and the containers must be treated as hazardous waste material. Product residues should be considered special hazardous waste. Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations. Prevent entry into sewers, basements or confined areas; dike if needed.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14: TRANSPORT INFORMATION

Ethyl iodide is NOT classified as hazardous for transport [ADR (road), RID (rail), ICAO/IATA (air), ADN (inland waterways) and IMDG (sea)].

14.1. UN-Number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

SECTION 15: REGULATORY INFORMATION

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

Authorisations: Not required

Restrictions on use: None

Other EU regulations: Ethyl iodide is not a SEVESO substance, not an ozone depleting substance and not a persistent organic pollutant.

National regulations: No data.

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15.2. Chemical safety assessment

A chemical safety assessment has NOT been carried out for this substance.

SECTION 16: OTHER INFORMATION

Data are based on our latest knowledge but do not constitute a guarantee for any specific product features and do not establish a legally valid contractual relationship.

16.1. Hazard Statements

H302: Harmful if swallowed.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335: May cause respiratory irritation.

16.2. Precautionary Statements

P261: Avoid breathing fume/gas/mist/vapors/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352: IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P403+P233: Store in a well-ventilated place. Keep container tightly closed.

16.3. Risk Phrases

R22: Harmful if swallowed.
R36/37/38: Irritating to eyes, respiratory system and skin.
R42/43: May cause sensitization by inhalation and skin contact.

16.4. Safety Phrases

S23: Do not breathe vapour/spray.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37: Wear suitable protective clothing and gloves.
S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible).

16.5. Abbreviations

EC₅₀: median effective concentration
LC₅₀: median lethal concentration
LD₅₀: median lethal dose
NOEC: no observable effect concentration
OEL: occupational exposure limit
PBT: persistent, bioaccumulative, toxic chemical
PNEC: predicted no-effect concentration
STEL: short-term exposure limit
TWA: time weighted average
vPvB: very persistent, very bioaccumulative chemical

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Disclaimer

This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation (EC 1907/2006; article 31 and Annex II), as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.

End of the Safety Data Sheet