

1: Identification of substance / mixture

1. Product Identifier

Substance

Product Name **Ethyl bromide**
Product Code IL-EB
CAS Number 74-96-4
Other Names
IUPAC
MFCD Number MFCD00000232
EC/EINECS 200-825-8
REACH Number Index-No

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

Research and Development

3. Details of the supplier of the safety data sheet

ISOMERLAB D.O.O.
TRZASKA CESTA
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SI-1000 LJUBLJANA
SLOVENIA



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4. Emergency telephone number

112

2. Hazards Identification

1. Classification of the substance or mixture

H225	Flam. Liq. 2	
H302	Acute Tox. 4	
H332	Acute Tox. 4	
H351	Carc. 2	

2. Label elements

Signal Word **Danger**



Hazard Statements

H225	Highly flammable liquid and vapour.
H302	Harmful if swallowed.
H332	Harmful if inhaled.
H351	Suspected of causing cancer ..

Precautionary Phrases

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

3. Composition / Information on Ingredients

1. Substances

Product Name	Hazards	Concentration
Ethyl bromide		
CAS Number: 74-96-4 EC/EINECS: 200-825-8	H225, H302, H332, H351 Acute Tox. 4, Carc. 2, Flam. Liq. 2	<=100%

4. First Aid Measures

1. Description of first aid measures

<i>Skin Contact</i>	P303 + P361 + P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
<i>Eye Contact</i>	Rinse opened eye for several minutes under running water.
<i>Ingestion</i>	P301 + P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
<i>Inhalation</i>	P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

2. Most important symptoms and effects

There may be irritation and redness.

3. Indication of any immediate medical attention

No additional measures required

5. Firefighting measures

1. Extinguishing Media

<i>Suitable</i>	P370 + P378: In case of fire: Use CO ₂ , foam or extinguishing powder for extinction.
<i>Unsuitable</i>	no data

2. Special Hazards arising from the substance or mixture

In combustion toxic fumes may form.

3. Advice for Fire Fighters

Wear self-contained breathing apparatus.
Wear protective clothing to prevent contact with skin and eyes.

6. Accidental Release Measures

1. Personal Precautions

Eliminate all sources of ignition.
Evacuate the area immediately.
Do not attempt to take action without suitable protective clothing – see section 8 of SDS.

2. Environmental Precautions

Do not discharge into drains or rivers.
Contain the spillage using bunding.

3. Methods & Materials

Mix with sand or vermiculite.
Do not use equipment in clean-up procedure which may produce sparks.
Transfer to a closable, labelled salvage container for disposal by an appropriate method.

4. Preventing the occurrence of secondary hazards.

No Special Measures Required

7. Handling and Storage

1. Personal Precautions

<i>Safe Handling</i>	Ensure there is sufficient ventilation of the area. P240: Ground/bond container and receiving equipment. P264: Wash hands thoroughly after handling. P270: Do not eat, drink or smoke when using this product.
<i>Protection against explosions and fires</i>	P202: Do not handle until all safety precautions have been read and understood. P241: Use explosion-proof electrical/ventilating/lighting/. equipment. P242: Use only non-sparking tools. P243: Take precautionary measures against static discharge.

2. Conditions for safe storage, including any incompatibilities

<i>Managing Storage Risks</i>	Store in cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed.
<i>Storage Controls</i>	P403 + P235: Store in a well-ventilated place. Keep cool.
<i>Maintaining Integrity</i>	P210: Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
<i>Other advice</i>	no further information available

3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

8. Exposure Controls/Personal Protection

1. Control Parameters

No Data Available

2. Exposure Controls

<i>General protective and hygiene measures</i>	P280: Wear protective gloves/protective clothing/eye protection/face protection. Wash hands during breaks and at the end of handling the material Immediately remove any contaminated clothing
<i>Engineering measures</i>	P271: Use only outdoors or in a well-ventilated area. Ensure lighting and electrical equipment are not a source of ignition.
<i>Eye / Face Protection</i>	Safety Glasses with side-shields.
<i>Hand protection</i>	Protective gloves.
<i>Respiratory protection</i>	P261: Avoid breathing dust/fume/gas/mist/vapours/spray. Use breathing protection with high concentrations
<i>Skin protection</i>	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practice. Wash and dry hands. Protective clothing.
<i>Other personal protection advice</i>	no data

9. Physical and Chemical Properties

1. Physical and Chemical Properties

Appearance	Clear colourless liquid
Odour	Ether-like
Odour threshold	No Data Available
PH	No Data Available

Melting point / Freezing point	-119°C
Initial boiling point and boiling range	37-40°C
Flash point	-23°C
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	Upper: 11.25% (V). Lower: 6.75% (V)
Vapour pressure	519.7 hPa at 20 °C
Vapour density	3.76 - (Air = 1.0)
Relative density	1.46
Solubility(ies):	Water: Very slightly soluble (0.91g/100mL, 20°C)
Partition coefficient: n-octanol/water	1.51
Auto-ignition temperature	511°C
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

2. Other Information

No additional information available

10. Stability and Reactivity

1. Reactivity

no unusual reactivity

2. Stability

Stable under normal conditions.

3. Possibility of Hazardous Reactions

no hazardous reactions known

4. Conditions to Avoid

Sources of Ignition.
 Heat, flames and sparks.
 Extremes of temperature and direct sunlight.

5. Incompatible Materials

Oxidising agents.
 Strong bases.
 Magnesium.
 Potassium.
 Aluminium.
 Zinc.
 Alkali metals.
 Calcium,
 Sodium/sodium oxides,

6. Hazardous Decomposition Products

In combustion emits toxic fumes.
 In combustion emits toxic fumes of carbon dioxide / carbon monoxide.
 In combustion emits toxic fumes of hydrogen bromide gas.

11. Toxicology information

1. Information

<i>Acute Toxicity</i>	Oral LD50 (Rat) 1,350 mg/kg Inhalation LC50 (Rat) 1h 26980ppm ipr-rat LD50:1750 mg/kg
<i>Skin corrosion/irritation</i>	irritant for skin and mucous membranes
<i>Serious eye Damage/irritation</i>	irritant effect

<i>Respiratory or skin sensitisation</i>	No sensitizing effect known
<i>Germ Cell mutagenicity</i>	Genotoxicity in vitro - Hamster - ovary 100mg/ Sister chromatid exchange mmo-sat 75 ng/plate (+S9)
<i>Carcinogenicity</i>	Carcinogenicity - rat - Inhalation Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Brain and Coverings: Tumors. ihl-rat TCLo: 100 ppm/6H/2Y-I Carcinogenicity - mouse - Inhalation Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic Effects: Uterine tumors. ihl-mus TCLo: 200 ppm/6H/2Y-I This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification. Limited evidence of carcinogenicity in animal studies IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Bromoethane)
<i>Reproductive toxicity</i>	not known
<i>STOT-single exposure</i>	not known
<i>STOT-repeated exposure</i>	not known
<i>Aspiration hazard</i>	not known

2. Additional

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.
No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH

12. Ecological Information

1. Toxicity

not known

2. Persistence and degradability

13 - 45% (by BOD)

3. Bio-Accumulative Potential

not known

4. Mobility and Soil

Log Pow: 1.51

5. Results of PBT & vPvB assessment

not known

6. Other adverse effects

Water hazard class 2 (self assessment); hazardous for water.

13. Disposal Considerations

1. Waste Treatment Methods

Disposal Operations

Disposal of Packaging Disposal must be made according to official regulations.

14. Transport Information

Air (ICAO)

1. **UN Number:** 1891
2. **Shipping Name:** Ethyl bromide
3. **Transport hazard class(es):** : 6.1 Sub Class :



- 4. **Packing group: II**
- 5. **Environmental hazards:**
- 6. **Special Precautions for user:**
- 7. **Transport in bulk:**

Road (ADR)

- 1. **UN Number: 1891**
- 2. **Shipping Name: ETHYL BROMIDE**
- 3. **Transport hazard class(es) : 6** Sub Class :



- 4. **Packing group: II**
- 5. **Environmental hazards:**
- 6. **Special Precautions for user:**
- 7. **Transport in bulk:**

Sea (IMDG)

- 1. **UN Number: 1891**
- 2. **Shipping Name: Ethyl bromide**
- 3. **Transport hazard class(es) : 6.1** Sub Class :



- 4. **Packing group: II**
- 5. **Environmental hazards:**
- 6. **Special Precautions for user:**
- 7. **Transport in bulk:** IBCINS: IBC02
IBCPPROV: B8
UNTANKINS: -
TANKPROV: TP2, TP13

15. Safety, health, environmental and national regulations

1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

2. Safety Assessment

No Chemical Safety Assessment

16. Other Information

1. Other Information:

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)
RID:Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association
ICAO:International Civil Aviation Organization
ICAO-TI: Technical Instructions by the ICAO
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
CAS:Chemical Abstracts Service

2. Associated risk phrases according to European directive 67/548/EEC

3. Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user.