GPS Safety Summary
Isobutyl vinyl ether

This Product Safety Summary is intended to provide a general overview of the chemical substance. It contains basic information and is not intended to provide emergency response information, medical information or treatment information. The summary cannot be relied on to provide in-depth safety and health information. In-depth safety and health information must be obtained from the Material Safety Data Sheet ((M)SDS) for the chemical substance.

Chemical Identity

Name: Isobutyl vinyl ether
CAS number: 109-53-5
Molecular formula: C_{6}H_{12}O

IUPAC name: 2-methyl-1-(vinyl oxy)propane
BASF brand names: Isobutyl vinyl ether

For synonyms see end of document

Uses and Applications

Isobutyl vinyl ether is an intermediate used for solvent-borne and high-solid coatings. It can also be used as an anti-corrosive.
Health Information

Human Health Safety Assessment

Note: The information contained in the table below may be useful to someone handling the concentrated substance such as a manufacturer or transporter. Consumers are not likely to come in contact with the concentrated substance. The data does not replace the data given in the (M)SDS. For more information and recommended protective measures please refer to the (M)SDS.

<table>
<thead>
<tr>
<th>Effect Assessment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>Virtually nontoxic after a single ingestion, single skin contact and by inhalation.</td>
</tr>
<tr>
<td>Irritation</td>
<td>Skin contact causes irritation. Not irritating to the eyes.</td>
</tr>
<tr>
<td>Sensitization</td>
<td>Not considered sensitizing. The data have been derived from products of a similar structure.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Not considered mutagenic.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>The whole of the information available provides no indication of a carcinogenic effect.</td>
</tr>
<tr>
<td>Toxicity after repeated exposure</td>
<td>Not considered toxic after repeated exposure.</td>
</tr>
<tr>
<td>Toxicity for reproduction</td>
<td>Not considered toxic for reproduction. The data have been derived in parts from products of a similar structure.</td>
</tr>
</tbody>
</table>

Environmental Information

Environment Safety Assessment

Note: The information in this chapter is intended to provide brief and general information of this substance’s environmental impact. The results in the table below refer to testing performed with the concentrated substance. The data does not replace the data given in the (M)SDS. For more information and recommended protective measures please refer to the (M)SDS.

<table>
<thead>
<tr>
<th>Effect Assessment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Toxicity</td>
<td>Acutely harmful to aquatic organisms.</td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td>Biodegradable.</td>
</tr>
<tr>
<td>Bioaccumulation potential</td>
<td>Does not significantly accumulate in organisms.</td>
</tr>
</tbody>
</table>
Physical/Chemical Properties

Phys/Chem Safety Assessment

- Isobutyl vinyl ether is a colorless highly flammable liquid with an ether-like odor. It is slightly soluble in water. It is non explosive, and has no oxidizing properties.

Note: The results in the table below refer to testing performed with the concentrated substance. The data does not replace the data given in the (M)SDS. For more information and recommended protective measures please refer to the (M)SDS.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Melting / freezing point</td>
<td>-112 °C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>83 °C at 1013 hPa</td>
</tr>
<tr>
<td>Flash point</td>
<td>-15 °C</td>
</tr>
<tr>
<td>Flammability</td>
<td>Highly flammable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non explosive</td>
</tr>
<tr>
<td>Self-ignition temperature</td>
<td>195 °C</td>
</tr>
</tbody>
</table>

Exposure Potential

- Workplace exposure: The Substance is used in industrial settings only. The possible routes of potential exposure of the worker are inhalation and contact with the skin. Uses in industrial settings are generally controlled conditions and often in closed systems. Workers should follow the recommended safety measures in the (Material) Safety Data Sheet ((M)SDS). Generally a thorough training program for employees and appropriate work processes and safety equipment to limit unnecessary exposure shall be in place. Exposure of the worker has been assessed. The occupational use of this substance is considered to be safe for the worker following the recommended safety measures given in the (M)SDS.

- Consumer exposure: The substance is used in industrial settings only. No indirect exposure via the environment is expected. Indirect exposure to trace amounts via the
use of articles may be possible and has been assessed. Therefore, no relevant consumer exposure is expected.

- **Environmental exposure:** As described earlier, the substance is used in different industrial applications. Exposure of the environment has been assessed. The substance is used in industrial settings only. Waste management is in place. Releases to environment are controlled and minimized by technical means. Releases into the environment at intended uses have been assessed and are of no concern for environment if suggested risk minimization measurements of the (M)SDS are followed. Conclusively, all identified uses are safe for the environment based on the scientific facts summarized above and when carried out in compliance with recommended risk management measures and applicable regulations.

**Recommended Handling Measures**

The recommended safety measures generally apply in contact with the concentrated substance. It is NOT intended to replace the comprehensive guidance found in the (M)SDS, only supplement it. Please refer to the (M)SDS for specific safety and first aid measures.

When using concentrated chemicals always make sure that there is adequate ventilation. Always use appropriate chemical resistant gloves to protect your hands and skin and always wear eye protection such as chemical goggles. Do not eat, drink, or smoke where chemicals are handled, processed, or stored. Wash hands and skin following contact. If the substance gets into your eyes, rinse eyes thoroughly for at least 15 minutes with tap water and seek medical attention. For specific advice please consult the corresponding (Material) Safety Data Sheet of the substance.

All effluent releases that may include the substance must be directed to a (municipal) waste water treatment plant that removes the substance from the final releases to the receiving water.

**Regulatory Information / Classification and Labelling**

Under GHS substances are classified according to their physical, health, and environmental hazards. The hazards are communicated via specific labels and the (M)SDS. GHS attempts to standardize hazard communication so that the intended audience (workers, consumers, transport workers, and emergency responders) can better understand the hazards of the chemicals in use.
Note: The hazard statements and symbols presented here refer to the hazard properties of the concentrated substance and are meant to provide a brief overview of the substance’s labelling. It is not intended to be comprehensive or to replace information found in the (M)SDS.

Labeling according to UN GHS
UN GHS is the basis for country specific GHS labeling

Signal word:
Danger

Hazard statements:
H225: Highly flammable liquid and vapor
H402: Harmful to aquatic life
H412: Harmful to aquatic life with long lasting effects
H315: Causes skin irritation

Additional information

1. IFA GESTIS-database on hazardous substances
   http://www.dguv.de/ifa/en/gestis/stoffdb/index.jsp

2. Information on registered substance (ECHA)

Most commonly used synonyms

» Vinylisobutylether
» Isobutoxyethene
» Isobutanol vinyl ether
» Propane, 1-(ethenyloxy)-2-methyl-

Disclaimer

IMPORTANT: While the data and information contained herein are presented in good faith and believed to be accurate at the date of printing, it is provided for your guidance only and may be revised in the future. No warranties of any kind, either express or implied, of merchantability, fitness for a particular purpose or of any other nature are made regarding the data or information provided. Further, it is expressly understood that the data and information furnished by BASF hereunder are given gratis and BASF assumes no obligation or liability whatsoever resulting from use of or reliance on the data and information given.

Contact

For further information on this substance or GPS safety summaries in general, please contact: info.gps@basf.com