GPS Safety Summary
Bis-butoxyethoxyethoxymethane bis(2-(2-butoxyethoxy)ethoxy)methane

Chemical Identity

**Name:** Bis-butoxyethoxyethoxymethane

**CAS number:** 143-29-3

**Molecular formula:** \( \text{C}_{17}\text{H}_{36}\text{O}_6 \)

**Structure**

![Chemical structure diagram]

**IUPAC name:**
5,8,11,13,16,19-hexaoxatricosane

**BASF brand names:**
Pluriol®

For synonyms see end of document

Product Uses

Bis-butoxyethoxyethoxymethane is an ingredient mainly used in complex formulations for electrophoretic coating processes in the automotive industry.

Benefits

The substance shows multifunctional advantages in the electrophoretic coating process. The substance is not volatile and shows very low VOC emissions in the coating process, Furthermore the substance improves film building combined with a good smoothness of the final coating.
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, while verifiable, are not intended to be comprehensive nor replace the data found in the (M)SDS.

<table>
<thead>
<tr>
<th>Effect Assessment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>Of low toxicity after single ingestion.</td>
</tr>
<tr>
<td></td>
<td>Virtually nontoxic after a single skin contact.</td>
</tr>
<tr>
<td>Irritation</td>
<td>Not irritating to the skin and to the eyes.</td>
</tr>
<tr>
<td>Sensitization</td>
<td>Skin sensitizing effects were not observed.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Not considered to be mutagenic.</td>
</tr>
<tr>
<td>Toxicity after repeated exposure</td>
<td>Not considered to be toxic after repeated exposure.</td>
</tr>
<tr>
<td>Toxicity for reproduction</td>
<td>The data available for an assessment of the effect of the substance on toxicity to reproduction are not sufficient for a proper evaluation.</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 contained in this section explain the relative effect of the concentrated substance on the environment, as defined by certain tests.

<table>
<thead>
<tr>
<th>Effect Assessment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Toxicity</td>
<td>Acutely harmful to aquatic life.</td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td>Biodegradable.</td>
</tr>
<tr>
<td>Bioaccumulation potential</td>
<td>Not bioaccumulative.</td>
</tr>
</tbody>
</table>

Physical/Chemical Properties

Phys/Chem Safety Assessment
Bis-butoxyethoxyethoxymethane is a non-flammable, non-explosive, slightly yellowish liquid that is partly miscible with water.

Note: The results in the table below refer to testing performed with the concentrated substance. It is not intended to be comprehensive or to replace information found in 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>-25.3°C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>not applicable; substance decomposes before boiling</td>
</tr>
<tr>
<td>Flash point</td>
<td>138°C</td>
</tr>
<tr>
<td>Flammability</td>
<td>Non flammable upon ignition</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non explosive</td>
</tr>
<tr>
<td>Self-ignition temperature</td>
<td>312°C at 994 – 1005 hPa</td>
</tr>
</tbody>
</table>

**Exposure Potential**

- **Workplace exposure:** Exposure to bis-butoxyethoxyethoxymethane can occur in manufacturing operations during maintenance, sampling, testing, or other procedures. Exposure would generally occur at low levels not likely to cause injury. However, each industrial facility should have a thorough training program for employees and appropriate work processes, as well as safety equipments in place to limit unnecessary exposure. Safety showers and eye-wash stations should be accessible nearby. Workers should follow the recommended safety measures in the Extended Safety Data Sheet (eSDS).

- **Consumer exposure:** Bis-butoxyethoxyethoxymethane would generally be present in consumer products at very low concentration levels not likely to cause injury. However, like for all chemicals, carefully read and follow the instructions given on product labels for proper use.

- **Environmental exposure:** Based on the environmental hazard data presently available Bis-butoxyethoxyethoxymethane is not considered to be dangerous for the environment for longer time periods. Therefore, an exposure assessment for the environment is negligible. Even in case of accidental spills, the substance is rapidly biodegraded by
microorganisms and prolonged exposure of the environment is not to be expected. 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: none
Warning: none

Hazard statements:
No classification

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

» bis(2-(2-butoxyethoxy)ethoxy)methane
» Mazon 1651
» TP-90B

Disclaimer

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.

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