

## Global Product Strategy (GPS) Safety Summary

### Glycol Ether DB

This GPS Safety Summary is a high-level summary intended to provide the general public with an overview of product safety information on this chemical substance. It is not intended to provide emergency response, medical or treatment information, or to provide an overview of all safety and health information. This summary is not intended to replace the Safety Data Sheet. For detailed guidance on the use or regulatory status of this substance, please consult the Safety Data Sheet and the Product Stewardship Bulletin (PSB).

#### Chemical Identity

**Name:** Glycol Ether DB

**Brand names:** Glycol Ether DB

**Chemical name (IUPAC):** 2-(2-Butoxyethoxy) ethanol

**Synonym:** Diethylene Glycol Monobutyl Ether

**CAS number:** 112-34-5

**EC number:** 203-34-5

**Molecular formula:** C<sub>8</sub>H<sub>18</sub>O<sub>3</sub>

#### Uses and Applications

Glycol Ether DB is widely used as a solvent, especially in the printing ink and paint industries. Glycol Ether DB is also found in products such as floor cleaners, floor wax strippers, floor finishes, spray cleaners, penetrating oils, metal cleaners and paint removers.

#### Physical / Chemical Properties

Glycol Ether DB is a colorless liquid that is miscible with water and most organic solvents. It has a flash point of 106°C (228°F). The boiling point and freezing point are 230°C (446°F) and -68°C (-90°F), respectively.

#### Health Effects

Glycol Ether DB presents a low acute toxicity hazard to humans after exposure via ingestion, skin contact, and inhalation. Glycol Ether DB is seriously irritating to the eye, mildly irritating to skin and irritating to respiratory tract. Glycol Ether DB has been classified as hazardous under the Globally Harmonized System (GHS) on classification and labeling for its health effects.

The table below gives an overview of the health effects assessment results for Glycol Ether DB.

Effect Assessment	Result
Acute toxicity Oral / inhalation / dermal	Low acute toxicity by the oral, inhalation and dermal routes of exposure
Irritation / corrosion	Mild skin irritant, respiratory tract irritant and moderate to

Skin / eye / respiratory tract	serious eye irritant
Sensitization	Not expected to be a sensitizer
Toxicity after repeated exposure Oral / inhalation / dermal	Low concern for repeated exposure toxicity
Genotoxicity / mutagenicity	Not expected to be genotoxic, nor mutagenic
Carcinogenicity	Not expected to be a human carcinogen
Toxicity for reproduction	Not expected to be toxic to reproduction

## **Environmental Effects**

The table below gives an overview of the environmental effects assessment results for Glycol Ether DB.

<b>Effect Assessment</b>	<b>Result</b>
Aquatic Toxicity	Not expected to be harmful to aquatic organisms

<b>Fate and behaviour</b>	<b>Result</b>
Biodegradation	Expected to be readily biodegradable
Bio-accumulation potential	Not expected to bio-accumulate
PBT / vPvB conclusion	Not considered to be either PBT or vPvB.

PBT = Persistent, Bio-accumulative and Toxic in the environment.  
vPvB = very Persistent and very Bio-accumulative in the environment.

## **Exposure**

### Human health

Consumers may be exposed to small amounts of Glycol Ether DB during the use of consumer products containing Glycol Ether DB.

Worker exposure to Glycol Ether DB in manufacturing facilities is low because the process, storage and handling operations are generally enclosed. However, worker exposure can potentially occur during operations such as product transfer, product sampling, or maintenance / repair activities on product containing systems. The risk of accidental exposure should be controlled by selecting and applying the appropriate Risk Management Measures.

Professional and industrial workers may come into contact with Glycol Ether DB as a component of industrial products containing Glycol Ether DB. Exposure should be controlled by selecting and applying the appropriate Risk Management Measures.

### Environment

The manufacture of Glycol Ether DB is a closed and automated process. Also, transfer (loading and transport) of the product is conducted in a closed system to prevent release.

However, due to its use as a component in products such as coatings, cleaners and household products, Glycol Ether DB has indoor and outdoor environmental release possibilities. Glycol Ether DB is soluble in water and is not expected to be bio-accumulative.

## **Risk Management Measures**

For detailed guidance on the use of Glycol Ether DB, the Safety Data Sheet should be consulted.

### **Consumer use**

When using a Glycol Ether DB containing consumer product at home, all instructions and precautions should be read, understood and followed, such as recommendations for the use of eye protection or gloves. Adequate ventilation should be provided, and it should not be used near open flames or other ignition sources.

### **Human health (industrial and professional use)**

When using chemicals make sure that there is adequate ventilation. Use appropriate chemical-resistant gloves to protect your hands and skin, wear eye protection such as chemical goggles, and wear flame-retardant clothing. 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.

In the case of transfer or maintenance operations, clear transfer lines prior to decoupling, and flush/drain to a closed system for recycle prior to opening equipment.

In cases where engineering controls cannot maintain airborne substance concentrations below exposure limits, or in cases with a risk of accidental exposure, additional risk management measures may be necessary such as the use of a complete suit protecting against chemicals and supplied air, a self-contained breathing apparatus or respirator.

### **Spills and Leaks**

Contain spills with dikes to prevent entry into sewers or waterways. For large spills, dike and pump into properly labeled containers for reclamation or disposal. For small spills, soak up with absorbent material and place in properly labeled containers for disposal. All recovered material should be packaged, labeled, transported and disposed of or reclaimed in conformance with applicable laws, regulations and good engineering practices. Reclaim where possible.

## **Regulatory Information / Classification and Labeling**

This substance has been registered under REACH by relevant companies of LyondellBasell in the European Union.

For a detailed overview of the regulatory status of this substance, please refer to the Product Stewardship Bulletin, available on [lyondellbasell.com](http://lyondellbasell.com).

Under the Globally Harmonized System on classification and labeling (GHS) substances are classified according to their physical, health and environmental hazards. The hazards are communicated via specific labels on the product packaging and the Safety Data Sheet. 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.

For a detailed overview of the classification and labeling of this substance, please refer to the regional Safety Data Sheet found on [lyondellbasell.com](http://lyondellbasell.com).

### **Conclusion Statements**

- Glycol Ether DB is widely used as a solvent, especially in the printing ink and paint industries. Glycol Ether DB is also found in products such as floor cleaners, floor wax strippers, floor finishes, spray cleaners, penetrating oils, metal cleaners and paint removers.
- Glycol Ether DB is hazardous under GHS. The material has low acute toxicity via all routes of exposure, is a mild skin irritant, a respiratory tract irritant and a moderate to serious eye irritant. It should be used only in well ventilated areas away from ignition sources and with the recommended risk management measures.
- Glycol Ether DB is not expected to be harmful to aquatic organisms, expected to readily biodegrade and not expected to bio accumulate.

### **Contact Information within Company**

For further information on this product in general, please consult the LyondellBasell corporate website ([www.lyb.com](http://www.lyb.com)).

### **Date of issue**

Date of issue: 4 June 2015.

### **Disclaimer**

Before using a product sold by a company of the LyondellBasell family of companies, users should make their own independent determination that the product is suitable for the intended use and can be used safely and legally.

SELLER MAKES NO WARRANTY; EXPRESS OR IMPLIED (INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR ANY WARRANTY) OTHER THAN AS SEPARATELY AGREED TO BY THE PARTIES IN A CONTRACT.

This product(s) may not be used in:

- (i) any U.S. FDA Class I, Health Canada Class I, and/or European Union Class I medical devices, without prior notification to Seller for each specific product and application; or
  - (ii) the manufacture of any of the following, without prior written approval by Seller for each specific product and application: U.S. FDA Class II Medical Devices; Health Canada Class II or Class III Medical Devices; European Union Class II Medical Devices; film, overwrap and/or product packaging that is considered a part or component of one of the aforementioned medical devices; packaging in direct contact with a pharmaceutical active ingredient and/or dosage form that is intended for inhalation, injection, intravenous, nasal, ophthalmic (eye), digestive, or topical (skin) administration; tobacco related products and applications, electronic cigarettes and similar devices, and pressure pipe or fittings that are considered a part or component of a nuclear reactor.
- Additionally, the product(s) may not be used in: (i) U.S. FDA Class III Medical Devices; Health Canada Class IV Medical Devices; European Class III Medical Devices; (ii) applications involving permanent implantation into the body; (iii) life-sustaining medical applications; and (iv) lead,

asbestos or MTBE related applications. All references to U.S. FDA, Health Canada, and European Union regulations include another country's equivalent regulatory classification.

Users should review the applicable Safety Data Sheet before handling the product.

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Glycol Ether DB is a product of Equistar Chemicals, LP and Lyondell Chemie Nederland B.V.