

Global Product Strategy (GPS) Safety Summary

Glycol Ether DM

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 DM

Brand names: Glycol Ether DM

Chemical name (IUPAC): 2-(2-methoxyethoxy) ethanol

Synonym: Diethylene Glycol Monomethyl Ether

CAS number: 111-77-3

EC number: 203-906-6

Molecular formula: C₅H₁₂O₃

Uses and Applications

Glycol Ether DM is used as a solvent in coating applications such as latex paint and wood stain. Glycol Ether DM is also used in textile applications such as printing and dyeing processes and printing inks.

Physical / Chemical Properties

Glycol Ether DM is a colorless liquid with a mild, pleasant odor that is miscible with water and most organic solvents. It has a flash point of 83.9°C (183°F) and is classified as combustible under the Globally Harmonized System (GHS) on classification and labeling. The boiling point and freezing point are 193.6°C (380.5°F) and -65°C (-85°F), respectively.

Health Effects

Glycol Ether DM presents a minimal acute toxicity hazard to humans after exposure via ingestion, skin contact, and eye contact. Glycol Ether DM maybe irritating to the skin and is considered to be an eye irritant. Glycol Ether DM is classified under GHS for reproductive toxicity.

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

Effect Assessment	Result
Acute Toxicity Oral / inhalation / dermal	Minimal acute toxicity by the oral, inhalation and dermal routes of exposure
Irritation / corrosion	Maybe irritating to the skin and is considered to be an eye

Skin / eye / respiratory tract	irritant
Sensitization	Not considered to be a sensitizer
Toxicity after repeated exposure Oral / inhalation / dermal	Repeated or prolonged exposure to mists of this material may cause long-term adverse health effects.
Genotoxicity / Mutagenicity	Not genotoxic / not mutagenic
Carcinogenicity	Not expected to be a human carcinogen
Toxicity for reproduction	Animal studies indicate the potential for reproductive effects in males. Acute or repeated oral, dermal, or inhalation exposures can cause reproductive toxicity and developmental effects

Environmental Effects

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

Effect Assessment	Result
Aquatic Toxicity	Not expected to be harmful to aquatic organisms

Fate and Behavior	Result
Biodegradation	Expected to be biodegradable
Bio-accumulation potential	Not expected to bio-accumulate

Exposure

Human health

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

Worker exposure to Glycol Ether DM 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 DM as a component of industrial products containing Glycol Ether DM. Exposure should be controlled by selecting and applying the appropriate Risk Management Measures.

Environment

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

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

Risk Management Measures

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

Consumer use

When using a Glycol Ether DM - containing consumer product at home, all instructions and precautions should be read, understood and followed, such as recommendations for use of eye protection and 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. Always 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 a 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 and regulations and in conformance with good engineering practices. Reclaim where possible.

Regulatory Information / Classification and Labeling

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

Under the Globally Harmonized System (GHS) on classification and labeling 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.

Conclusion Statements

- Glycol Ether DM is used as a solvent in coating applications such as latex paint and wood stain. Glycol Ether DM is also used in textile applications such as printing and dyeing processes, and in printing inks.
- Glycol Ether DM is classified under GHS as combustible and toxic to reproduction. The material may also be a skin irritant and is considered to be an eye irritant. It should be used only in well ventilated areas away from ignition sources and with the recommended risk management measures.
- Glycol Ether DM is not expected to be harmful to aquatic organisms, expected to be biodegradable 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).

Date of issue

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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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