

Global Product Strategy (GPS) Safety Summary

Tripropylene Glycol Monomethyl Ether

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, nor 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: Tripropylene Glycol Monomethyl Ether

Brand names: Glycol Ether TPM

Chemical name (IUPAC): Propanol,(2(2 Methoxymethylethoxy)Methylethoxy)

CAS number: 25498-49-1

EC number: 247-045-4

Molecular formula: C₁₀H₂₂O₄

Uses and Applications

Glycol Ether TPM is a versatile solvent with low volatility and low evaporation rate. It is water miscible and has good solvency with numerous non-polar substances. Glycol Ether TPM has been selected for use in:

- Coatings, where it can be blended with faster evaporating solvents to moderate evaporation.
- Cleaning formulations, wax strippers and floor cleaners that are spread over a large area.
- Agricultural, electronic, ink, textile, cosmetics and adhesive products.

Physical / Chemical Properties

Glycol Ether TPM is a colorless liquid with an ether-like odor at room temperature. The substance is considered non-flammable with a flash point of 124°C (255°F). The boiling and freezing points of Glycol Ether TPM are 242.8°C (469°F) and -77.8°C (-108°F) respectively. Glycol Ether TPM is not classified as hazardous under the Globally Harmonized System on classification and labeling (GHS).

Health Effects

Glycol Ether TPM is of low acute toxicity by all routes of exposure. It may cause temporary slight eye irritation. Prolonged and repeated skin contact with excessive amounts of Glycol Ether TPM may cause kidney damage. However, these effects are below the thresholds that would warrant classification under GHS.

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

Effect Assessment	Result
Acute Toxicity Oral / inhalation / dermal	Low acute toxicity by all routes of exposure.
Irritation / corrosion Skin / eye/ respiratory tract	Can cause temporary slight eye irritation.
Sensitisation	Not sensitizing.
Toxicity after repeated exposure Oral / dermal	Prolonged and repeated skin contact with excessive amounts of Glycol Ether TPM may cause kidney damage.
Genotoxicity / Mutagenicity	Not mutagenic.
Carcinogenicity	Not considered carcinogenic.
Toxicity for reproduction	Not toxic to reproduction or development.

Environmental Effects

Glycol Ether TPM is a low ecotoxicity hazard and is therefore not classified under GHS. Furthermore, it does not bio-accumulate, is readily biodegradable and will not persist in the environment.

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

Effect Assessment	Result
Aquatic Toxicity	Low ecotoxicity hazard to aquatic organisms

Fate and behavior	Result
Biodegradation	Readily biodegradable.
Bioaccumulation potential	Not bio-accumulative.
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

Human exposure can occur resulting from the use of coatings, cleaning agents, agrochemical formulations and other formulations containing Glycol Ether TPM. It may also be contained in perfumes, fragrances and cosmetics. None of these uses are expected to pose risks to human health due to the contained Glycol Ether TPM.

Exposure to Glycol Ether TPM of personnel in manufacturing facilities is considered very low because the process, storage and handling operations are enclosed. However, worker exposure can potentially happen during operations like 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.

Environment

Due to its many uses as a functional fluid in formulations, Glycol Ether TPM has widespread indoor and outdoor environmental release possibilities. None of these applications are expected to pose risks to the environment due to the contained Glycol Ether TPM.

Risk Management Measures

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

When using a Glycol Ether TPM containing consumer product at home, all provided instructions and precautions from the supplier should be read, understood and followed. It should never be used near open flames or other ignition sources.

Human health

When using chemicals make sure that there is adequate ventilation. Always use appropriate chemical-resistant gloves to protect your hands and skin, always wear eye protection such as chemical goggles and always 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, always 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 such as aerosol formation, the use of a respirator may be necessary.

Environmental

In case of accidental release or spill, do not allow the product to enter sewers, surface or ground water.

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 which is available from the LyondellBasell corporate website.

Under GHS (Globally Harmonized System 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, which can be found on the LyondellBasell corporate website.

Conclusion Statements

- Glycol Ether TPM is a versatile solvent with low volatility and low evaporation rate. It is used in a wide variety of industrial, professional and consumer products, such as coatings and cleaners, agricultural, electronic, ink, textile, cosmetics and adhesive products.
- Glycol Ether TPM is not classified as hazardous under GHS.
- Glycol Ether TPM is of low concern for human health hazards and environment at exposure levels relevant to humans and environment.

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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