

Global Product Strategy (GPS) Safety Summary

Glycol Ether HHM

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.

Chemical Identity

Name: Mixture of Ethylene Glycol Monomethyl Ethers

Brand names: Glycol Ether HHM

Chemical name (IUPAC): Heavy Ethylene Glycol Monomethyl Ethers

CAS number: n/a (mixture)

EC number: n/a (mixture)

Molecular formula: n/a (mixture)

Uses and Applications

Glycol Ether HHM may be used as an additive in many applications, including the production of asphalts, inks, cleaning compounds, concretes, well drilling fluids, anti-freeze, brake fluids and hydraulic fluids.

Physical / Chemical Properties

Glycol Ether HHM is a mixture of di-, tri- and tetraethylene glycol monomethyl ethers. At ambient temperature Glycol Ether HHM is a colorless liquid with an ether-like odor. It is completely soluble in water and has low volatility. The flash point for Glycol Ether HHM is >120°C (>248°F). The boiling point is >200°C (>392°F).

Health Effects

Glycol Ether HHM has been classified under the Globally Harmonized System on classification and labeling (GHS) as hazardous for damaging fertility or the unborn child, and damage to organs through both single and repeated exposure.

The table below gives an overview of the health effects assessment results for Glycol ether HHM.

Effect Assessment	Result
Acute Toxicity Oral / inhalation / dermal	May cause damage to the kidneys and central nervous system through the oral route of exposure. Low concern for acute toxicity by the inhalation and dermal routes of exposure.
Irritation / corrosion Skin / eye/ respiratory tract	May cause mild eye irritation. Not expected to be irritating to skin.
Sensitization	Not expected to be a sensitizer.
Toxicity after repeated exposure Oral / inhalation / dermal	Ingestion may cause damage to the kidneys and bladder through prolonged or repeated exposure.
Genotoxicity / Mutagenicity	Low concern for genotoxicity/mutagenicity.
Carcinogenicity	Low concern for cancer.
Toxicity for reproduction	May cause toxicity to reproduction at high oral doses and is suspected of damaging the unborn child.

Environmental Effects

Based on component data, Glycol Ether HHM is expected to have low toxicity to aquatic life. It has therefore not been classified under GHS as hazardous to the environment.

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

Effect Assessment	Result
Aquatic Toxicity	Not expected to be toxic to aquatic life

Fate and behaviour	Result
Biodegradation	Rapidly biodegradable
Bioaccumulation potential	Not expected to bioaccumulate
PBT / vPvB conclusion	Not considered to be either PBT nor vPvB.

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

Exposure

Human health

Glycol Ether HHM may be present in consumer products such as cleaning compounds, anti-freeze and hydraulic brake fluids. When using a Glycol Ether HHM containing consumer product at home, all instructions and precautions should be read, understood and followed.

Personnel exposure to Glycol Ether HHM in manufacturing facilities is considered very low because the process, storage and handling operations are 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.

Environment

Glycol Ether HHM is manufactured in a closed and automated process. Also, transfer (loading and transport) of the product is conducted in closed containers to prevent release from the system. Due to its use as a component in hydraulic brake fluids, Glycol Ether HHM has indoor and outdoor environmental release possibilities.

Risk Management Measures

For detailed guidance on the use of Glycol Ether HHM, the [Safety Data Sheet](#) should be consulted.

Glycol Ether HHM should be handled only by knowledgeable and trained personnel.

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, additional risk management measures may be necessary for safe use, such as the use of a complete suit protecting against chemicals and supplied air, a self-contained breathing apparatus or respirator.

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

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 HHM is used as an additive in many applications including the production of inks, cleaning compounds, anti-freeze and hydraulic brake fluids.
- Glycol ether HHM has been classified as hazardous to human health. When ingested it may damage the kidneys, bladder and central nervous system. At high oral doses it may damage fertility or the unborn child.
- Glycol Ether HHM is expected to have low toxicity to aquatic organisms, to be biodegradable and not expected to bioaccumulate.

Contact Information within Company

For further information on this product in general, please consult the [LyondellBasell corporate website](#).

Date of issue

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Disclaimer

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

Glycol ether HHM is a product of Equistar Chemicals, LP.