

Propylene oxide (PO) glycol ethers (Proxitol) and acetates

Product Stewardship Summary

CAS number

Methylproxitol: 107-98-2

Methylproxitol acetate: 108-65-6

Methyldiproxitol: 34590-94-8

Ethylproxitol: 1569-02-4

Chemical formula

Please contact us if you need a specific chemical formula

What are PO glycol ethers and acetates?

PO glycol ethers are solvents having a bi-functional nature (ether-alcohol). PO glycol ether acetates are clear liquids, which are also solvents that often have a pleasant, fruity odour.

The Shell Chemicals range of PO glycol ethers and acetates are sold under the trade name PROXITOL. So Methyl PROXITOL and Methyl DIPROXITOL are the Shell trade names for the monomethyl ether of propylene glycol and dipropylene glycol respectively. Methyl PROXITOL is sometimes called MP or PM.

How are PO glycol ethers and acetates used?

PO glycol ethers and acetates are mainly used in surface coatings, printing inks, cleaners, cosmetics and agrochemical formulations. They are also used as extractants, and as coalescing agents and flow improvers in water-based paints.

Health, Safety and Environmental considerations

If large quantities are ingested or high vapour concentrations inhaled, PO glycol ethers may cause central nervous system depression including headaches, nausea, dizziness, drowsiness, and coma. Some PO glycol ethers may cause eye irritation or eye damage. Shell PO glycol ethers are not classified as carcinogens or mutagens, and are not expected to cause cancer in humans.

The occupational exposure limits set by various regulatory authorities applicable to Shell PO glycol ethers and their acetates range from 20 to 100 ppm. No occupational exposure limit has been set for Ethyl PROXITOL.

Storing and transporting glycol ethers

PO glycol ethers are transported by marine, road and rail, primarily in bulk quantities. Some PO glycol ethers are classified as hazardous for transport under transport regulations.

PO glycol ethers should be stored at ambient temperatures away from sources of ignition and substances with oxidizing or corrosive properties. Proxitol is stabilised with a certain amount of inhibitor to prevent the formation of peroxides.

Risk Characterization Summary

Risks associated with exposure to these products have been evaluated for the following “chain-of-commerce” activities: manufacture, storage, product transfer, transportation, and customers/markets. They are manufactured, stored and transported to customers in closed systems. Depending on the customer, end uses may vary from use as an intermediate for the manufacture of other chemicals, commercial products, or certain formulated consumer products. Proper equipment design and handling procedures maintain low risk from exposure to these products where the product is used as a chemical intermediate. Exposures may be higher in commercial and consumer applications. To minimize risk, additional controls, such as, special handling procedures and protective packaging, are implemented.

This product stewardship summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of health and safety information. Additional information is available through the chemical’s applicable Material Safety Data Sheet, which should be consulted before use of the chemical. This product stewardship summary does not supplant or replace required regulatory and/or legal communication documents.