Product Safety Assessment

BETALUBE™ 450 Lubricant


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Names
• CAS No. 25791-96-2
• BETALUBE™ 450 Lubricant
• Glycerine-propoxylated polyether polyol
• Propylene oxide-glycerine polymer
• α, α′, α″-1,2,3-propanetriyltris[w-hydroxy-poly(oxy-(methyl-1,2-ethanediyl)]
• Glycerine propylene oxide polymer
• Propoxylated glycerol

Product Overview
• BETALUBE™ 450 Lubricant is a glycerine-propoxylated polyol supplied as a 45 to 55% solution. It is a colorless liquid with a characteristic odor.\(^1\) For further details, see Product Description.
• BETALUBE 450 Lubricant is used in the application of adhesives during cold weather to lubricate the barrel of adhesive application equipment. For further details, see Product Uses.
• Exposure can occur either in facilities that manufacture this product or in the various industrial or manufacturing facilities that use this product. This product is not sold to consumers.\(^1\) For further details, see Exposure Potential.
• Eye contact may cause slight, temporary irritation. Even prolonged skin contact is not likely to cause significant irritation or result in absorption of harmful amounts. Exposure to vapor is expected to be minimal due to the low volatility of this product. This product has low toxicity if swallowed.\(^1\) For further details, see Health Information and request the relevant Safety Data Sheet.
• BETALUBE 450 Lubricant is expected to biodegrade slowly in the environment. Environmental releases would tend to migrate toward or remain in water. This product would not persist in the environment and would be removed by biological wastewater-treatment facilities. It is practically non-toxic to aquatic organisms and has a low bioconcentration potential.\(^1\) For further details, see Environmental Information.
• BETALUBE 450 Lubricant is stable under recommended storage and normal use conditions. Avoid contact with strong oxidizers, acids, alcohols, amines, bases, and water.\(^1\) For further details, see Physical Hazard Information.

\(^1\)Trademark of the Dow Chemical Company (“Dow”) or an affiliated company of Dow
Manufacture of Product
- **Capacity** – The Dow Chemical Company and its global affiliates are major producers of propylene oxide, one of the materials used to manufacture polyether polyols such as BETALUBE™ 450 Lubricant, and is also the world’s largest producer of polyether polyols. BETALUBE 450 Lubricant is manufactured at facilities in Europe.
- **Process** – BETALUBE 450 Lubricant is produced using proprietary Dow Automotive Systems materials and technology.

Product Description
BETALUBE™ 450 Lubricant is a glycerine-propoxylated polyol supplied as a 45 to 55% solution. The product is a colorless, hygroscopic (attracts water from the atmosphere and environment) liquid with a characteristic odor.

Product Uses
BETALUBE™ 450 Lubricant is used in the application of adhesives during cold weather. It functions as a lubricant in adhesive application equipment to enhance the functioning of the plunger in the barrel.

Exposure Potential
BETALUBE™ 450 Lubricant is used in the production of industrial products. Based on the uses for this product, individuals could be exposed through:
- **Workplace exposure** – Exposure can occur either in facilities that manufacture BETALUBE 450 Lubricant or in the various industrial or manufacturing facilities that use this product. It is produced, distributed, and stored in closed systems. Those working with BETALUBE 450 Lubricant in manufacturing operations could be exposed during maintenance, application, or other procedures. Each manufacturing facility should have a thorough training program for employees and appropriate work processes, ventilation, and safety equipment in place to limit exposure. See Health Information.
- **Consumer exposure to products containing BETALUBE 450 Lubricant** – Dow does not sell BETALUBE 450 Lubricant for consumer use, so direct consumer contact with this product is unlikely. See Health Information.
- **Environmental releases** – In the event of a spill, the focus is on containing the spill to prevent contamination of soil, surface water, or groundwater. Small spills should be absorbed with cat litter. This product is non-volatile and water soluble, so environmental releases would tend to dissolve and remain mobile in surface water, soil pore water and groundwater. The product would be expected to biodegrade slowly and would not persist in the environment. It will be efficiently removed by biological wastewater-treatment facilities. The bioconcentration potential of this product is low, and it is practically non-toxic to aquatic organisms. See Environmental, Health, and Physical Hazard Information.
- **Large release** – Industrial spills or releases are infrequent and generally contained. If a large spill does occur, the product should be captured, collected, and reprocessed or disposed of according to applicable governmental requirements. Product spilled on concrete and metal surfaces may result in a slipping hazard. Absorb product with inert materials such as cat litter. If available, use foam to smother or suppress vapor. Wear suitable protective equipment. Dike to prevent contamination of ground and surface water, then transfer into closed containers. See Environmental, Health, and Physical Hazard Information.
- **In case of fire** – Isolate the fire and deny any unnecessary entry into the area. Use water spray, water fog, or foam to fight the fire. Do not use a direct water stream. Firefighters should wear positive-pressure, self-contained breathing apparatus (SCBA) and protective firefighting clothing (including firefighting helmet, coat, trousers, boots, and gloves). Combustion by-products may include, but are not limited to, carbon dioxide and carbon monoxide. Follow emergency procedures carefully. See Environmental, Health, and Physical Hazard Information.

For more information, request the relevant Safety Data Sheet from the Dow Customer Information Group.
Health Information

Eye contact – Contact may cause slight, temporary eye irritation. Corneal injury is unlikely.

Skin contact – Contact is essentially non-irritating to the skin. Prolonged contact is not likely to result in absorption of harmful amounts.

Inhalation – At room temperature, exposure to vapor is minimal due to low volatility; a single exposure is not likely to be hazardous. Mist may cause irritation of the upper respiratory tract (nose and throat).

Ingestion – This product has low toxicity if swallowed. Small amounts swallowed incidental to normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury.

Repeated exposure – Based on available data, repeated exposures are not expected to cause significant adverse effects.

For more information, request the relevant Safety Data Sheet from the Dow Customer Information Group.

Environmental Information

BETALUBE™ 450 Lubricant is non-volatile and water soluble, so environmental releases would tend to dissolve and remain mobile in surface water, soil pore water, and ground water. The product will not persist in the environment as it will slowly and completely biodegrade in water, soil, and sediments, and would be efficiently removed from wastewater by biological wastewater-treatment facilities. The bioconcentration potential (tendency to accumulate in the food chain) for this product is low. The substance has been determined to not meet criteria for persistence, bioaccumulation, and toxicity, and thus is not considered to be a PBT substance.

This product is practically non-toxic to aquatic organisms (LC50/EC50 >1000 mg/L for the most sensitive species tested).

For more information, request the relevant Safety Data Sheet from the Dow Customer Information Group.

Physical Hazard Information

BETALUBE™ 450 Lubricant is stable under recommended storage and normal use conditions. Some components of this product can decompose at elevated temperatures. Avoid contact with strong oxidizers, acids, alcohols, amines, bases, and water.

For more information, request the relevant Safety Data Sheet from the Dow Customer Information Group.

Regulatory Information

Regulations may exist that govern the manufacture, sale, transportation, use, and/or disposal of BETALUBE™ 450 Lubricant. These regulations may vary by city, state, country, or geographic region. Information may be found by consulting the relevant Safety Data Sheet or Contact Us.

Additional Information

- Request the Safety Data Sheet from the Dow Customer Information Group (www.dow.com/assistance/dowcig.htm)
- Contact Us (www.dowautomotive.com/contact)

For more business information about BETALUBE™ 450 Lubricant, visit the Dow Automotive Systems website at www.dowautomotive.com.
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References
1 BETALUBE™ 450 Lubricant Safety Data Sheet, The Dow Chemical Company
NOTICES

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