Product Safety Assessment
SYNALOX™ 50-S Lubricants/ FLUENT Brand Polyglycols/ Polyglycol 15-200

Product Safety Assessment documents are available at www.dow.com/productsafety/finder/.

Select a Topic:
Names
Product Overview
Manufacture of Product
Product Description
Product Uses
Exposure Potential
Health Information
Environmental Information
Physical Hazard Information
Regulatory Information
Additional Information
References

Names
• CAS No. 9082-00-2
• FLUENT-CANE™ 113 Polyglycol
• FLUENT-CANE 858 Polyglycol
• FLUENT-FAX™ 213 Polyglycol
• FLUENT-LUB™ 313 Polyglycol
• FLUENT-LUB 325 Polyglycol
• FLUENT-LUB 380 Polyglycol
• Polyglycol 15-200
• SYNALOX™ 50-S lubricants
• SYNALOX 50-S100 lubricant
• SYNALOX 50-S220 lubricant
• SYNALOX 50-S700 lubricant
• Methyl oxirane polymer with oxirane
• Ether with 1,2,3-propane triol
• Glycerine propoxylated-ethoxylated polyols

Product Overview
• SYNALOX™ 50-S lubricants are synthetic polymers produced from glycerine, ethylene oxide and propylene oxide. These products are colorless to yellow liquids with a mild odor. SYNALOX 50-S lubricants are currently produced and marketed in Europe.¹ For further details, see Product Description.

• SYNALOX 50-S lubricants can be formulated for use in numerous industrial lubricant applications.¹ For further details, see Product Uses.

• SYNALOX 50-S lubricants are for commercial use only. Worker exposure is possible at facilities that manufacture these lubricants, or during transport or use. Engineering controls and personal protective equipment reduce exposure risk. Consumers are not likely to contact these products.¹ For further details, see Exposure Potential.

• Eye contact with SYNALOX 50-S lubricants is not expected to cause irritation. Prolonged skin contact is not likely to cause significant irritation. At room temperature, exposure to product vapor is minimal.¹ For further details, see Health Information.

• SYNALOX 50-S lubricants are biodegradable, unlikely to accumulate in the food chain (bioaccumulation potential is low), and are practically non-toxic to fish and other aquatic organisms.¹ For further details, see Environmental Information.

¹™Trademark of The Dow Chemical Company (“Dow”) or an affiliated company of Dow
SYNALOX 50-S lubricants are thermally stable at recommended storage and use temperatures. Products can oxidize (decompose) at elevated temperatures, creating pressure build-up in closed systems. Avoid contact with strong acids, strong bases, and strong oxidizers.¹ For further details, see Physical Hazard Information.

**Manufacture of Product**²

- **Locations** – Dow manufactures SYNALOX™ 50-S lubricants at facilities in Terneuzen, Netherlands.
- **Process** – SYNALOX 50-S lubricants are produced by the using glycerine as the initiator and reacting it with ethylene oxide and propylene oxide. The ratio and order of addition, together with the choice of initiator and the molecular weight, control the chemical and physical properties of the final product. SYNALOX 50-S lubricants are currently produced and marketed in Europe.

**Product Description**³

SYNALOX™ 50-S lubricants are alkoxylate-based synthetic lubricants. These products have high viscosity indices, excellent lubricating properties, and high stability over a broad temperature range.

**Product Uses**¹

SYNALOX 50-S lubricants can be formulated for use in numerous industrial lubricant applications, although they are mainly used for gear lubricant formulations.

**Exposure Potential**¹

SYNALOX™ 50-S lubricants are used in a variety of industrial applications. Based on the uses for these products the public could be exposed through:

- **Workplace exposure** – Exposure can occur either in facilities that manufacture SYNALOX lubricants, during transport, or in the various industrial facilities that use these lubricants. They are produced, distributed, and stored in contained systems. Those working with these products in manufacturing operations could be exposed during maintenance, sampling, testing, or other procedures. Each manufacturing facility should have a thorough training program for employees and appropriate work processes and safety equipment in place to limit unnecessary exposure. See Health Information.
- **Consumer exposure to SYNALOX 50-S lubricants** – SYNALOX 50-S lubricants are commercial products for industrial use. Consumers are not likely to come in contact with these products. See Health Information.
- **Environmental releases** – Since SYNALOX 50-S lubricants are non-volatile and soluble in water, when introduced, they will have a tendency to remain in water. Because these compounds are biodegradable, they will be removed from water and soil environments, including sewage treatment plants. In the event of a spill, the focus is on containing the spill to prevent contamination of soil and surface or ground water. See Environmental, Health, and Physical Hazard Information.
- **Large release** – Industrial spills or releases are infrequent and generally contained. If a large spill does occur, evacuate the area. Contain spilled material if possible. Collect recovered

¹⁰™Trademark of The Dow Chemical Company (“Dow”) or an affiliated company of Dow
material in suitable and properly labeled containers. Spills of these materials on hot, fibrous insulation may reduce the autoignition temperature, increasing the potential for spontaneous combustion. Use appropriate safety equipment. See Environmental, Health, and Physical Hazard Information.

- **In case of fire** – Keep people away. Isolate the fire and deny unnecessary entry. Fight the fire from a protected area or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Use water fog or fine spray, dry-chemical or carbon-dioxide extinguishers, or foam to fight the fire. A direct water stream may spread the fire. Firefighters should wear positive-pressure, self-contained breathing apparatus (SCBA) and protective firefighting clothing. Contain fire-water run-off to minimize the potential for environmental damage. Follow emergency procedures carefully. See Environmental, Health, and Physical Hazard Information.

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

**Health Information**

**Eye contact** – Contact with these lubricants is unlikely to cause eye irritation.

**Skin contact** – Prolonged contact is not likely to cause significant irritation. Response may be more severe on skin that is abraded (scratched or cut).

**Inhalation** – At room temperature, exposure to vapor is minimal due to low volatility. A single exposure to vapor is not likely to be hazardous.

**Ingestion** – These products have very 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.

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

**Environmental Information**

SYNALOX™ 50-S lubricants are polymers with low volatility. Because they are soluble in water, once introduced, they have a tendency to remain in water. They have minimal tendency to bind to soil or sediment.

SYNALOX 50-S lubricants are unlikely to persist in the environment. These compounds are biodegradable, which suggests they will be removed from water and soil environments, including biological wastewater treatment plants.

Because of their high molecular weight, these lubricants are not expected to accumulate in the food chain (low potential for bioconcentration). SYNALOX 50-S lubricants are practically non-toxic to fish and other aquatic organisms.

For more information, request the Safety Data Sheet from the Dow Customer Information Group.
Physical Hazard Information
SYNALOX™ 50-S lubricants are thermally stable under recommended storage and use conditions. These products can decompose at elevated temperatures. Generation of gas during decomposition can cause pressure build-up in closed systems. Decomposition products may include carbon dioxide, aldehydes, alcohols, ethers, hydrocarbons, ketones, polymer fragments, and other compounds.

Avoid contact with strong acids, strong bases, and strong oxidizers.

For more information, request the 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 SYNALOX™ fluids and lubricants. 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 relevant Safety Data Sheet from the Dow Customer Information Group at (www.dow.com/assistance/dowcig.htm)
- Contact Us (www.dow.com/polyglycols/synalox/contact/contact.htm)

For more business information about SYNALOX™ 50-S lubricants visit Dow’s SYNALOX Fluids and Lubricants web site at (www.dow.com/polyglycols/synalox/index.htm).

References
1 SYNALOX™ 50-S220 Lubricant Safety Data Sheet, The Dow Chemical Company
NOTICES:

As Part of its 2015 Sustainability Goals, Dow has committed to make publicly available safety assessments for its products globally. This product safety assessment 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 relevant Safety Data Sheet, which should be consulted before use of the chemical. This product safety assessment does not replace required communication documents such as the Safety Data Sheet.

The information herein is supplied upon the condition that the persons receiving same will make their own determination as to its suitability for their purposes prior to use. In no event will Dow be responsible for damages of any nature whatsoever resulting from the use of or reliance upon the information herein or the product to which that information refers.

Nothing contained herein is to be construed as a recommendation to use any product, process, equipment or formulation in conflict with any patent, and Dow makes no representation or warranty, express or implied, that the use thereof will not infringe any patent.

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO INFORMATION OR THE PRODUCT TO WHICH INFORMATION REFERS.

Dow makes no commitment to update or correct any information that appears on the Internet or on its World-Wide Web server. The information contained in this document is supplemental to the Internet Disclaimer, http://www.dow.com/homepage/term.asp.

Back to top

Form No. 233-00807-MM-0614X