Product Safety Assessment
SYNALOX™ 40-A80 Lubricant

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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
• SYNALOX™ 40-A80 Lubricant
• Polyalkylene glycol

Product Overview
• SYNALOX™ 40-A80 Lubricant is a synthetic lubricant based on polyalkylene glycol (PAG) initiated with a fatty alcohol.¹ For further details, see Product Description.
• SYNALOX 40-A80 Lubricant is designed for use in textile fiber lubrication, rubber lubrication, metalworking fluids, gears, and bearings. It can also be used to formulate mold-release agents.² For further details, see Product Uses.
• Those working with SYNALOX 40-A80 Lubricant in manufacturing operations or as a lubricant could be exposed during maintenance, sampling, testing, or other procedures. Consumer contact is unlikely. For further details, see Exposure Potential.
• Eye contact may cause slight temporary eye irritation or corneal injury. Brief skin contact may cause slight irritation with local redness. Even prolonged skin contact is unlikely to result in absorption of harmful amounts. Exposure to vapor is minimal due to low volatility. Low toxicity if swallowed.³ For further details, see Health Information.
• SYNALOX 40-A80 Lubricant is used primarily in controlled industrial settings. It is not volatile and is moderately soluble in water. Any accidental releases to soil or water are expected to be small in both frequency and magnitude, and the material will tend to remain within the water or soil compartment to which it is released. If released to the environment, the product will slowly but ultimately biodegrade, and will be efficiently removed in biological wastewater-treatment facilities. This product is not be expected to bioconcentrate (accumulate in the food chain) and is considered to be moderately toxic to aquatic organisms on an acute basis.⁴ For further details, see Environmental Information.
• SYNALOX 40-A80 Lubricant is stable at normal storage and use temperatures; however, elevated temperatures can cause this product to decompose.⁵ For further details, see Physical Hazard Information.

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Manufacture of Product

- **Capacity** – SYNALOX™ 40-A80 Lubricant is manufactured at facilities in Terneuzen, The Netherlands by an affiliate of The Dow Chemical Company.
- **Process** – SYNALOX 40-A80 Lubricant is produced by reacting ethylene oxide and propylene oxide in specific ratios using a fatty alcohol initiator.

Product Description

SYNALOX™ 40-A80 Lubricant is an alkoxylate-based synthetic lubricant. It is a colorless to yellow, partially water-soluble liquid with a mild odor. SYNALOX products are marketed primarily in Europe.

Product Uses

SYNALOX™ 40-A80 Lubricant is designed for use as a high-performance lubricant featuring high viscosity index, low pour point, clean burn properties, low surface tension, low foam characteristics, and low toxicity and environmental impact. It can be used in a wide variety of applications, such as:
- Textile fiber lubrication
- Rubber lubrication
- Metalworking fluids
- Gears
- Bearings

It can also be used in the formulation of mold-release agents.

Exposure Potential

SYNALOX™ 40-A80 Lubricant is used in industrial and commercial facilities. Based on the uses for this product, the public could be exposed through:

- **Workplace exposure** – Exposure can occur either in a facility that formulates SYNALOX 40-A80 Lubricant or in the various facilities that use this product. It is produced, distributed, stored, and used in closed systems. Those working with SYNALOX 40-A80 Lubricant in manufacturing operations or as a lubricant 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, ventilation, and safety equipment in place to limit exposure. See Health Information.
- **Consumer exposure to products containing SYNALOX 40-A80 Lubricant** – Dow does not sell this product for direct consumer use. Consumer contact is unlikely. See Health Information.
- **Environmental releases** – Small quantities of SYNALOX 40-A80 Lubricant could be released into the environment from a spill or equipment failure. In the event of a spill, the focus is on containing the spill to prevent contamination of soil and surface or ground water. The product will slowly but ultimately biodegrade, and will be efficiently removed in biological wastewater-treatment facilities. This product is not expected to bioconcentrate (accumulate in the food chain) and is considered to be moderately toxic to aquatic organisms on an acute basis. 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 material should be captured, collected, and reprocessed or disposed of

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according to applicable governmental requirements. 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 or fog, carbon-dioxide or dry-chemical extinguishers, or foam to fight the fire. Alcohol-resistant foams are preferred. Use of a direct water stream may spread the fire. Immediately withdraw all personnel from the area in case of rising sounds from venting safety devices or discoloration of the container. Firefighters should wear positive-pressure, self-contained breathing apparatus (SCBA) and protective firefighting clothing. 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.

**Back to top**

**Health Information**

**Eye contact** – Contact may cause slight temporary eye irritation or slight temporary corneal injury.

**Skin contact** – Brief contact may cause moderate skin irritation with local redness. Even prolonged contact is unlikely to result in absorption of harmful amounts.

**Inhalation** – At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heated material may cause respiratory irritation and other effects.

**Ingestion** – Low toxicity if swallowed. Small amounts swallowed incidentally as a result of 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.

**Back to top**

**Environmental Information**

SYNALOX™ 40-A80 Lubricant is used primarily in controlled industrial settings. It is not volatile and is moderately soluble in water. Any accidental releases to soil or water are expected to be small in both frequency and magnitude, and the material will tend to remain within the water or soil compartment to which it is released.

If released to the environment, the product will slowly but ultimately biodegrade, and will be efficiently removed in biological wastewater-treatment facilities. This product is not be expected to bioconcentrate (accumulate in the food chain) and is considered to be moderately toxic to aquatic organisms on an acute basis. As such, this product is not considered to be either PBT (persistent bioaccumulative toxic) or vPvB (very persistent and very bioaccumulative).

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

**Back to top**

**Physical Hazard Information**

SYNALOX™ 40-A80 Lubricant is stable at normal storage and use temperatures; however, elevated temperatures can cause this product to decompose. Generation of gas during decomposition can cause pressure build-up in closed systems. Avoid contact with strong acids, strong bases, or strong oxidizers.

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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™ 40-A80 Lubricant. These regulations may vary by city, state, country, or geographic region. Information may be found by consulting the relevant Safety Data Sheet, Technical Data Sheet, or Contact Us.

Additional Information

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

For more business information about SYNALOX 40-A80 Lubricant, visit the SYNALOX™ Fluids and Lubricants web site at www.dow.com/polyglycols/synalox/index.htm.

References

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.

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Back to top