Product Safety Assessment

UCON™ Lubricant 75-H-110,000-X


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Names
- UCON™ Lubricant 75-H-110,000-X
- UCON Lubricants

Product Overview
- UCON™ Lubricant 75-H-110,000-X is a brown liquid with a mild odor based on a polyalkylene glycol copolymer. For further information, see Product Description.
- UCON Lubricant 75-H-110,000-X is used as a high-temperature process fluid or lubricant. For further information, see Product Uses.
- UCON Lubricant 75-H-110,000-X is produced, distributed, and stored in closed containers. Personnel working with these products in manufacturing operations could be exposed during maintenance, sampling, testing, or other procedures. For further information, see Exposure Potential.
- Eye contact may cause slight temporary irritation. Prolonged skin contact is essentially nonirritating and unlikely to result in absorption of harmful amounts. A minor component, N-phenyl-alpha-naphthylamine, may cause an allergic skin reaction. At room temperature, inhalation exposure is minimal. This product has low toxicity if swallowed. For further information, see Health Information and request the relevant Safety Data Sheet from the Dow Customer Information Group.
- UCON Lubricant 75-H-110,000-X is nonvolatile (does not evaporate) and water soluble below 75°C (167°F). This product is expected to biodegrade slowly and completely under environmental conditions and will be removed efficiently in biological wastewater-treatment facilities. The major component (>97% wt) of this product is not likely to accumulate in the food chain and is practically nontoxic to aquatic organisms on an acute basis. The minor additive (<3% wt) in this product is inherently biodegradable, toxic to aquatic organisms and has a low potential for bioaccumulation. For further information, see Environmental Information.
- UCON Lubricant 75-H-110,000-X is thermally stable at recommended storage and normal use conditions. Exposure to elevated temperature can cause this product to decompose, creating pressure build-up in closed systems. Avoid contact with strong acids, strong bases, and strong oxidizers. For further information, see Physical Hazard Information.

Manufacture of Product
- Locations – The Dow Chemical Company manufactures UCON™ Lubricant 75-H-110,000-X in the USA.
- Process – The base polyalkylene glycol in UCON Lubricant 75-H-110,000-X is produced by reacting ethylene oxide and propylene oxide to form a random copolymer.
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Product Description†
UCON™ Lubricant 75-H-110,000-X is a random, copolymer of ethylene oxide and propylene oxide. The brown, liquid polyalkylene glycol has a mild odor and is water-soluble below 75°C (167°F). The product also contains a small amount (less than 3%) of N-phenyl-alpha-naphthylamine (CAS No. 90-30-2).

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Product Uses‡,³
UCON™ Lubricant 75-H-110,000-X is used as a high-temperature process fluid or lubricant.

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Exposure Potential†
UCON™ Lubricant 75-H-110,000-X 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 UCON Lubricant 75-H-110,000-X or in the various industrial or manufacturing facilities that use this product. It is produced, distributed, stored, and consumed in closed systems. Those working with UCON Lubricant 75-H-110,000-X 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, ventilation, and safety equipment in place to limit exposure. See Health Information.

- **Consumer exposure to products containing UCON Lubricant 75-H-110,000-X** — Dow does not sell UCON Lubricant 75-H-110,000-X for direct consumer use, so consumer exposure 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. For small spills, UCON Lubricant 75-H-110,000-X should be collected for disposal. UCON Lubricant 75-H-110,000-X is nonvolatile and water-soluble below 75°C (167°F). When introduced to water, this product will tend to remain in or migrate toward surface or ground water. This product will also adsorb onto soil, suspended solids, and sediment. This product is expected to biodegrade slowly and completely under environmental conditions and will be removed efficiently in biological wastewater-treatment facilities. See Environmental, Health, and Physical Hazard Information.

- **Large release** — Industrial spills or releases are infrequent and generally contained. If a large spill does occur, these products should be captured, collected, and reprocessed or disposed of according to applicable governmental requirements. Contain spilled product if possible. Use appropriate safety equipment. Prevent from entering into soil, ditches, sewers, waterways, and/or groundwater. See Environmental, Health, and Physical Hazard Information.

- **In case of fire** — Keep people away; isolate the fire and deny unnecessary entry. Use water spray or fog, carbon-dioxide or dry-chemical extinguishers, or foam to fight the fire. Use water spray to cool fire-exposed containers and the fire-affected zone until the fire is out and danger of reignition has passed. Consider the use of unmanned hoseholders or monitor nozzles. Immediately withdraw all personnel from the area in the case of rising sound from venting safety devices or discoloration of the container. Burning liquids may be extinguished by dilution with water. Do not use a direct water stream as it may spread the fire. Move containers from the fire area if it is possible to do so without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage. Contain fire water runoff if possible to reduce the potential for environmental damage. Firefighters should wear positive-pressure, self-contained breathing apparatus (SCBA) and protective firefighting clothing. Follow emergency procedures carefully. If protective equipment is not available or not used, fight the fire from a protected location or safe distance. During a fire, smoke may contain the original material in addition to combustion products of varying composition, which may be toxic and/or irritating. Combustion products may include and are not limited to carbon dioxide, carbon monoxide, and nitrogen oxides. Containers may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of a direct water stream to hot liquids. Follow emergency procedures outlined in the Safety Data Sheet carefully. See Environmental, Health, and Physical Hazard Information.

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

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Health Information

Eye contact – Contact may cause slight, temporary eye irritation.

Skin contact – Prolonged skin contact is essentially nonirritating to the skin and unlikely to result in absorption of harmful amounts. A minor component, N-phenyl-alpha-naphthylamine, has caused allergic skin reactions in humans.

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

Ingestion – This product has low toxicity if swallowed. Small amounts swallowed incidental to normal handling operations are not likely to cause injury.

Effects of Repeated Exposure – Contains component(s) which have been reported to cause effects on the following organs in animals: Blood.

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

Environmental Information

UCON™ Lubricant 75-H-110,000-X is nonvolatile (does not readily evaporate) and water-soluble below 75°C (167°F). If released to water or soil, it would tend to remain in or migrate toward surface or ground water. This product will also adsorb onto soil, suspended solids, and sediment. UCON Lubricant 75-H-110,000-X is unlikely to persist in the environment and is known or expected to be inherently biodegradable according to Organisation for Economic and Co-operation and Development (OECD) test guidelines. As such, this product will be removed efficiently during treatment in biological wastewater-treatment facilities.

The major component (>97% wt polyalkylene glycol) of this product is not expected to accumulate in the food chain (low bioconcentration potential) and is practically nontoxic to aquatic organisms on an acute basis (LC50/EC50 >100 mg/L for the most sensitive species tested). The minor additive (<3% wt N-phenyl-alpha-naphthylamine) in this product is inherently biodegradable, highly toxic to aquatic organisms (LC50/EC50 between 0.1 and 1.0 mg/L in the most sensitive species tested) and has a low potential for bioaccumulation. Therefore, UCON Lubricant 75-H-110,000-X is not regarded as exhibiting persistent, bioaccumulative, and toxic (PBT) or very persistent and very bioaccumulative (vPvB) properties.

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

Physical Hazard Information

UCON™ Lubricant 75-H-110,000-X is thermally stable under recommended storage and normal use conditions, but can decompose at elevated temperatures. Generation of gas during decomposition can cause pressure build-up in closed systems. Decomposition products may include aldehydes, alcohols, ethers, hydrocarbons, ketones, organic acids, and polymer fragments.

This product is hygroscopic in nature and draws moisture from the environment.

Avoid contact with oxidizing materials, strong acids, and strong bases. Avoid unintended contact with isocyanates.

Spilled product may cause a slipping hazard.

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 UCON™ Lubricant 75-H-110,000-X. 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.

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Additional Information
- Request the relevant Safety Data Sheet from the Dow Customer Information Group (www.dow.com/assistance/dowcig.htm)
- Contact Us (www.dow.com/ucon/contact/index.htm)
- UCON™ Fluids and Lubricants, The Dow Chemical Company, Form No. 118-01346 (www.dow.com/ucon/tech/index.htm)


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References
1 The Dow Chemical Company. UCON™ Lubricant 75-H-110,000-X Material Safety Data Sheet
2 The Dow Chemical Company. UCON™ Lubricant 75-H-110,000-X Technical Data Sheet
4 The Dow Chemical Company, UCON Fluids and Lubricants. Form No. 118-01346

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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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