



# THE DOW CHEMICAL COMPANY MATERIAL SAFETY DATA SHEET



**Product Name:** UCON(TM) LUBRICANT LB-250  
**MSDS#:** 2279

**Effective Date:** 12/02/2002  
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Dow (hereinafter, and for purposes of this MSDS only, refers to The Dow Chemical Company and to Dow Chemical Canada Inc.) encourages and expects you to read and understand the entire MSDS, as there is important information throughout the document. Dow expects you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### 1.1 IDENTIFICATION

**Product Name** UCON(TM) LUBRICANT LB-250

### 1.2 COMPANY IDENTIFICATION

The Dow Chemical Company  
Midland, MI 48674

### 1.3 EMERGENCY TELEPHONE NUMBER

**24-HOUR EMERGENCY TELEPHONE NUMBER: (989)636-4400.**  
Customer Information Number: 1-800-258-2436.

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## **2. COMPOSITION INFORMATION**

<b>Component</b>	<b>CAS #</b>	<b>Amount (%W/W )</b>
Polypropylene glycol monobutyl ether	9003-13-8	> 99 %
Additive	Trade Secret	< 1%

## **3. HAZARDS IDENTIFICATION**

### **3.1 EMERGENCY OVERVIEW**

**Appearance**      Transparent light yellow

**Physical State**      Liquid

**Odor**      Mild

**Hazards of product**      NO SIGNIFICANT IMMEDIATE HAZARDS FOR EMERGENCY RESPONSE ARE KNOWN.

### **3.2 POTENTIAL HEALTH EFFECTS**

#### **Effects of Single Acute Overexposure**

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

**Eye Contact**    May cause slight temporary eye irritation. Corneal injury is unlikely.

**Skin Contact**    Prolonged contact may cause slight skin irritation with local redness. Did not cause allergic skin reactions when tested in humans.

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**Skin Absorption** Prolonged skin contact is unlikely to result in absorption of harmful amounts.

**Swallowing** Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts.

## **Chronic, Prolonged or Repeated Overexposure**

**Effects of Repeated Overexposure** In animals, effects have been reported on the following organs following ingestion: liver. In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

**Other Effects of Overexposure** No information available.

See Section 11 for toxicological information and additional information about potential health effects.

## **3.3 POTENTIAL ENVIRONMENTAL EFFECTS**

See Section 12 for Ecological Information.

## **4. FIRST AID PROCEDURES**

### **4.1 INHALATION**

Move person to fresh air; if effects occur, consult a physician.

### **4.2 EYE CONTACT**

Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes. If effects occur, consult a physician, preferably an ophthalmologist.

### **4.3 SKIN CONTACT**

Wash skin with plenty of water.

### **4.4 SWALLOWING**

No emergency medical treatment necessary.

### **4.5 NOTES TO PHYSICIAN**

No specific antidote.

Treatment of exposure should be directed at the control of symptoms and the clinical condition of

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the patient.

## **5. FIRE FIGHTING MEASURES**

### **5.1 FLAMMABLE PROPERTIES - REFER TO SECTION 9, PHYSICAL AND CHEMICAL PROPERTIES**

### **5.2 EXTINGUISHING MEDIA**

Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Do not use direct water stream. May spread fire. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

### **5.3 FIRE FIGHTING PROCEDURES**

Keep people away. Isolate fire and deny unnecessary entry. Use water spray to cool fire exposed containers and fire affected zone until fire is out and danger of reignition has passed. Fight fire from a protected location or safe distance. Consider the use of unmanned hose holders or monitor nozzles. Immediately withdraw all personnel from the area in case of rising sound from venting safety device or discoloration of the container. Do not use direct water stream. May spread fire. Move container from fire area if this is possible without hazard. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

### **5.4 SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS**

Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, pants, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

### **5.5 UNUSUAL FIRE AND EXPLOSION HAZARDS**

Container may rupture from gas generation in a fire situation. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

### **5.6 HAZARDOUS COMBUSTION PRODUCTS**

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 monoxide. Carbon dioxide.

## **6. ACCIDENTAL RELEASE MEASURES**

**Steps to be Taken if Material is Released or Spilled:**

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Contain spilled material if possible. Dilute with large quantities of water. Collect in suitable and properly labeled containers. See Section 13, Disposal Considerations, for additional information.

**Personal Precautions:** Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

**Environmental Precautions:** Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

## **7. HANDLING AND STORAGE**

### **7.1 HANDLING**

#### **General Handling**

Spills of these organic materials on hot fibrous insulations may lead to lowering of the autoignition temperatures possibly resulting in spontaneous combustion.

#### **Ventilation**

Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

### **7.2 STORAGE**

Store in the following material(s): 316 stainless steel. carbon steel. glass-lined container. polypropylene. polyethylene lined container. stainless steel. Teflon. This material may soften and lift certain paint and surface coatings. Use product promptly after opening. Store in original unopened container. Shelf life: Use within 2 years. Unopened containers of material stored beyond the recommended shelf life should be retested against the sales specifications before use. Additional storage information on this product may be obtained by calling your Dow sales or customer service contact.

## **8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**

### **8.1 EXPOSURE LIMITS**

None established by OSHA, ACGIH or Dow.

### **8.2 PERSONAL PROTECTION**

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**Respiratory Protection:** No respiratory protection should be needed.

**Ventilation:** Good general ventilation should be sufficient for most conditions. Local exhaust ventilation may be necessary for some operations.

**Eye Protection:** Use safety glasses.

**Other Protective Equipment:** Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur.

### **9. PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** Liquid

**Appearance:** Transparent light yellow

**Odor:** Mild

**Flash Point - Closed Cup:** 149 °C 300 °F *Pensky-Martens Closed Cup ASTM D 93*

**Flammable Limits In Air:**

Lower *No test data available.*  
Upper *No test data available.*

**Autoignition Temperature:** *No test data available.*

**Vapor Pressure:** < 0.01 mmHg 20 °C

**Boiling Point (760 mmHg):** > 200 °C > 392 °F

**Vapor Density (air = 1):** > 10

**Specific Gravity (H<sub>2</sub>O = 1):** 0.988 20 °C / 20 °C

**Freezing Point:** *Pour point* -51 °C -60 °F

**Melting Point:** *Not applicable.*

**Solubility in Water (by weight):** < 0.5 % 20 °C

**pH:** *No test data available.*

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**Evaporation Rate (Butyl Acetate = 1):** < 0.01

## **10. STABILITY AND REACTIVITY**

**10.1 STABILITY/INSTABILITY** Thermally stable at recommended temperatures and pressures.

**Conditions to Avoid:** Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems.

**Incompatible Materials:** Avoid contact with: Strong acids. Strong bases. Strong oxidizers.

**Thermal Decomposition:** Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aldehydes. Alcohols. Ethers.

**10.2 HAZARDOUS POLYMERIZATION** Will not occur.

## **11. TOXICOLOGICAL INFORMATION**

### **ACUTE TOXICITY**

#### **Peroral**

Rat; LD50 = > 5000 mg/kg

#### **Percutaneous**

Rabbit; LD50 = > 2000 mg/kg

### **DEVELOPMENTAL TOXICITY**

Did not cause birth defects or any other fetal effects in laboratory animals.

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## **REPRODUCTIVE TOXICITY**

In laboratory animal studies, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals.

## **GENETIC TOXICOLOGY**

### **In Vitro**

In vitro mutagenicity studies were negative in some cases and positive in other cases.

### **In Vivo**

Animal mutagenicity studies were negative.

## **SIGNIFICANT DATA WITH POSSIBLE RELEVANCE TO HUMANS**

In animals, effects have been reported on the following organs following ingestion:  
liver.

## **12. ECOLOGICAL INFORMATION**

### **12.1 ENVIRONMENTAL FATE**

#### **BOD (% Oxygen consumption)**

	<b>Day 5</b>	<b>Day 10</b>	<b>Day 15</b>	<b>Day 20</b>	<b>Day 28/30</b>
	4 %				

### **12.2 ECOTOXICITY**

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested).

#### **Toxicity to Aquatic Invertebrates**

water flea *Daphnia magna*; Acute LC50

**Result value:** 95 mg/l

#### **Toxicity to Fish**

fathead minnow (*Pimephales promelas*); Acute LC50

**Result value:** 50 mg/l



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### **12.3 FURTHER INFORMATION**

Chemical Oxygen Demand (COD) - measured: 2.23 mg/mg

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 DISPOSAL**

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DOW HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/ Information On Ingredients). FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: incinerator or other thermal destruction device. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Group at 1-800-258-2436 or 1-989-832-1556 (U.S.), or 1-800-331-6451 (Canada) for further details .

## **14. TRANSPORT INFORMATION**

### **14.1 U.S. D.O.T.**

#### **NON-BULK**

**Proper Shipping Name :** NOT REGULATED

#### **BULK**

**Proper Shipping Name :** NOT REGULATED

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*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.*

## **15. REGULATORY INFORMATION**

### **15.1 FEDERAL/NATIONAL**

#### **OSHA HAZARD COMMUNICATION STANDARD**

This product is not a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### **SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT) SECTION 313**

This product does not contain toxic chemicals at levels which require reporting under the statute.

#### **SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT) SECTION 302**

To the best of our knowledge this product does not contain chemicals at levels which require reporting under this statute.

#### **SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW ACT) SECTIONS 311 AND 312**

**Delayed (Chronic) Health Hazard : No**  
**Fire Hazard : No**  
**Immediate (Acute) Health Hazard : No**  
**Reactive Hazard : No**  
**Sudden Release of Pressure Hazard : No**

#### **TOXIC SUBSTANCES CONTROL ACT (TSCA)**

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All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

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## **CEPA - DOMESTIC SUBSTANCES LIST (DSL)**

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

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## **EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS)**

The components of this product are on the EINECS inventory or are exempt from EINECS inventory requirements.

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## **15.2 STATE/LOCAL**

### **PENNSYLVANIA (WORKER AND COMMUNITY RIGHT TO KNOW ACT): PENNSYLVANIA HAZARDOUS SUBSTANCES LIST AND/OR PENNSYLVANIA ENVIRONMENTAL HAZARDOUS SUBSTANCE LIST:**

To the best of our knowledge this product does not contain chemicals at levels which require reporting under this statute.

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### **PENNSYLVANIA (WORKER AND COMMUNITY RIGHT TO KNOW ACT): PENNSYLVANIA SPECIAL HAZARDOUS SUBSTANCES LIST:**

To the best of our knowledge this product does not contain chemicals at levels which require reporting under this statute.

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### **CALIFORNIA PROPOSITION 65 (SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986)**

WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

**Component**  
Propylene oxide

**CAS #**  
75-56-9

**Amount**  
<= 0.5000PPM

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## **CALIFORNIA SCAQMD RULE 443.1 (SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 443.1 LABELING OF MATERIALS CONTAINING ORGANIC SOLVENTS)**

**VOC:** Vapor pressure <0.01 mmHg at 20°C  
0.00 g/l  
0.00 g/l less water and less exempted solvents

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*This section provides selected regulatory information on this product including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.*

## **16. OTHER INFORMATION**

### **16.1 ADDITIONAL INFORMATION**

Additional information on this product may be obtained by calling Dow's Customer Information Group at 1-800-258-2436 (U.S.) or 1-800-331-6451 (Canada).

### **16.2 HAZARD RATING SYSTEM**

**||NFPA ratings for this product are: H - 1      F - 1      R - 1**

*These ratings are part of a specific hazard communication program and should be disregarded where individuals are not trained in the use of this hazard rating system. You should be familiar with the hazard communication programs applicable to your workplace.*

### **16.3 RECOMMENDED USES AND RESTRICTIONS**

#### **FOR INDUSTRY USE ONLY**

Selection of the appropriate polyglycol product for a specific application requires knowledge of the fluid requirements of the application, awareness of the most important of these requirements, and a match-up with the properties of the various polyglycol materials. Polyglycol products can be formulated for use in numerous industry applications such as hydraulic fluids, quenchants, compressor and refrigeration lubricants, heat transfer fluids, machinery lubricants, solder assist fluids, metalworking lubricants, etc.

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Dow recommends that you use this product in a manner consistent with the listed use. If your intended use is not consistent with Dow's stated use, please contact Dow's Customer Information Group at 1-800-258-2436 (U.S.) or 1-800-331-6451 (Canada) for more information.

## **16.4 REVISION**

Version: 3.

Revision: 12/02/2002

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

## **16.5 LEGEND**

Bacterial/NA	Non Acclimated Bacteria
F	Fire
H	Health
IHG	Industrial Hygiene Guideline
N/A	Not available
NFPA	National Fire Protection Association
O	Oxidizer
R	Reactivity
TS	Trade secret
VOL/VOL	Volume/Volume
W	Water Reactive
W/W	Weight/Weight

*NOTICE: Dow urges each customer or recipient of this MSDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this MSDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given., Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that its activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of Dow, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product., Due to the proliferation of sources for information such as manufacturer-specific MSDSs, Dow is not and cannot be responsible for MSDSs obtained from any source other than Dow. If you have obtained a Dow MSDS from a non-Dow source or if you are not sure that a Dow MSDS is current, please contact Dow for the most current version.*