

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION

OSTREM CHEMICAL CO. LTD.  
2310 - 80 AVENUE  
EDMONTON AB T6P 1N2

Phone: 780-440-1911 or 780-446-0177  
In Case of Emergency Only:  
phone CANUTEC at (613) 996-6666

**Product name:** LIQUID CHAIN LUBE M.O.

Code: T635

**Other name:**

**Distributed by:**

**Product use:** lubricant

**Date completed:** April 01, 2014

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	%W/W	CAS number
mineral oil	60-100	8042-47-5
isopropyl alcohol	1-5	67-63-0
palmitic acid	0.5-1.5	57-10-3
oleic acid	1-5	112-80-1
linoleic acid	0.5-1.5	60-33-3

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### 3. HAZARDS IDENTIFICATION

Combustible liquid. Eye irritant. Harmful if swallowed.

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### 4. FIRST AID MEASURES

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion:** Induce vomiting only on the direct advice of a poison control centre. Get medical attention.

**Eye contact:** Flush with plenty of water for at least 15 minutes. Get medical attention.

**Skin contact:** Remove contaminated clothing and flush with plenty of water.

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### 5. FIRE - FIGHTING MEASURES

**Flash point (test method):** 62C

**Flammable limits (%):** Not available

**Lower:** Not available

**Upper:** Not available

**Fire extinguishing substances:** dry chemical, carbon dioxide, water spray (fog) or foam

**Autoignition temperatures:** Not available

**Hazardous combustion products:** May liberate carbon monoxide, carbon dioxide.

**Explosion data:**

**Sensitivity to mechanical impact:** Not available

**Sensitivity to static discharge:** Not available

**Special firefighting procedures:** As for surrounding fire. Fire fighters should wear full protective clothing and self contained breathing equipment.

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### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:** Wear appropriate protective equipment.

**Environmental precautions:** Prevent from entering sewers, waterways or low areas.

**Methods for cleaning up:** Isolate hazard area and restrict access. Small spills: soak up with inert absorbent material and scoop into containers. Large spills: prevent contamination of waterways. Dike and pump into suitable containers.

LIQUID CHAIN LUBE M.O.

Clean up residual with absorbent material, place in appropriate container and flush with water.

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## 7. HANDLING AND STORAGE

**Handling:** Do not ingest. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.  
**Storage:** Store in a cool, dry area. Keep container tightly closed. Store in a segregated and approved area. Ensure storage containers are grounded/bonded.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls:** Provide exhaust ventilation to keep airborne levels below recommended exposure limits.  
**Respiratory protection:** If exposure exceeds occupational exposure limits, use an appropriate NIOSH approved respirator  
**Eye protection:** Chemical goggles. Wear a face shield if splashing hazards exists.  
**Other protection:** Wear protective clothing as necessary to prevent skin contact.

### Exposure limits:

INGREDIENT	ACGIH	OSHA	Other
mineral oil	Not available		
isopropyl alcohol	TWA=400 ppm		
palmitic acid	Not available		
oleic acid	Not available		
linoleic acid	Not available		

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Liquid	<b>Solubility in water:</b>	Not available
<b>Boiling point:</b> Not available	<b>Vapour pressure:</b>	Not available
<b>Vapour density:</b> Not available	<b>Evaporation rate:</b>	Not available
<b>Freezing point:</b> Not available	<b>Odour threshold:</b>	Not available
<b>Sp. Gravity:</b> 0.849	<b>pH:</b>	3.0; 1% solution: 7.2
<b>Appearance &amp; odour:</b>	clear liquid with slight odour	

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## 10. STABILITY AND REACTIVITY

**Stability:** Stable  
**Conditions of instability:** Not available  
**Incompatibility:** ( ) Water (X) Oxidizers ( ) Acid ( ) Base ( ) Other  
**Conditions of reactivity:** Not available  
**Hazardous decomposition products:** Not available

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## 11. TOXICOLOGICAL PROPERTIES

### POTENTIAL ACUTE HEALTH EFFECTS

**Inhalation:** No known significant effects.  
**Ingestion:** May be harmful if swallowed.  
**Eye contact:** May cause mild to severe irritation such as stinging, tearing, redness and swelling of the eyes.  
**Skin contact:** May cause skin irritation.  
**Skin absorption:** Not applicable

### POTENTIAL CHRONIC HEALTH EFFECTS:

**Inhalation:** No known significant effects.  
**Ingestion:** Not available  
**Eye contact:** Not available

**Skin contact:** Not available  
**Skin absorption:** Not available  
**Irritancy of product:** see WHMIS criteria  
**Sensitization of product:** Not available  
**Carcinogenicity:** IARC (1, 2A or 2B) No known significant effects.  
 ACGIH: (A1, A2 or A3) No known significant effects.  
**Reproductive toxicity:** No known significant effects.  
**Teratogenicity:** No known significant effects.  
**Mutagenicity:** No known significant effects.  
**Synergistic product:** Not available

HAZARDOUS INGREDIENTS	CAS NO.	TOXICITY DATA
mineral oil	8042-47-5	LD50 oral (rat) = >5000 mg/kg LD50 dermal (rabbit) = >2000 mg/kg
isopropyl alcohol	67-63-0	LD <sub>50</sub> Oral (rat) 5045 mg/kg LD <sub>50</sub> Dermal (rabbit) 5030 mg/kg
palmitic acid	57-10-3	LD50 Inv. (mouse) = 57 mg/kg
oleic acid	112-80-1	LD50 oral (rat) = 75 g/kg
linoleic acid	60-33-3	LD50 oral (rat) = 10.2 g/kg

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## 12. ECOLOGICAL INFORMATION

**Ecotoxicological information:** Not available  
**Other information:**

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## 13. DISPOSAL CONSIDERATIONS

**Waste disposal:** Disposal of all waste must be done according to local, provincial and federal regulations.

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## 14. TRANSPORT INFORMATION

**TDG classification:** Not regulated

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## 15. REGULATORY INFORMATION

**WHMIS:** B3 Combustible Liquid  
 D2B Toxic Material Causing Other Effects

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

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## 16. PREPARATION INFORMATION

**Prepared by:** Technical Services Department, Ostrem Chemical Co. Ltd., Ph: (780) 440-1911