



## SPECIALIZED LUBRICANTS

---

### 1. Substance/Product Identification

**Product Name:** 308 Moly Dri Plate Bulk

**Company/Address:** Schaeffer Mfg  
102 Barton Street  
Saint Louis, Missouri 63104  
USA

**Preparation/Revision Date:** 06/08/2011

**Product Use/Type:** Dry Film Lubricant

**Emergency Phone Number:** +1 314 865-4105 (24-hour response number)  
+ 1 314 865-4100 (Business hours 8:30AM-5:00PM)  
1-800-325-9962 (US & Canada)

**Website:** [www.schaefferoil.com](http://www.schaefferoil.com)

**MSDS Number:** 308 Version 1.1

### 2. Hazards Identification

**Appearance:** Grey green colored liquid

**Odor:** Fruity alcohol odor

**Principal Hazards:** Danger! Extremely flammable liquid and vapor. Vapors may cause flash fire. Harmful or fatal if swallowed. Causes irritation to skin, eyes and respiratory tract. May cause central nervous system depression. Aspiration hazard! Small amount aspirated into the lungs during ingestion or vomiting can cause lung injury, possibly leading to death. Symptoms of aspiration into the lungs include coughing, gasping, choking, shortness of breath, bluish discolored skin, rapid breathing and heart rate.

**Hazardous Materials Information System  
(U.S.A)**

**Health: 2  
Fire: 3  
Reactivity: 0**

**National Fire Protection Agency System  
(U.S.A.)**

**Health: 2  
Fire: 3  
Reactivity: 0**

See Section 11 for complete health hazard information

Product Name: 308 Moly Dri Plate Bulk

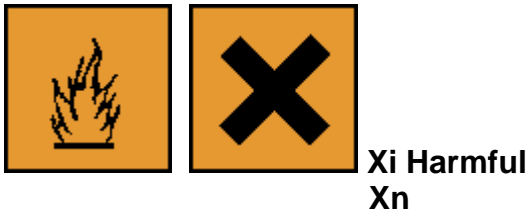
## 2. Hazard Identification Continued

### Symbols

#### GHS



#### EU



#### Canada



**Product Name: 308 Moly Dri Plate Bulk**

### **3. Composition and Information on Ingredients**

#### **Hazardous Ingredients**

<b>Ingredient Name</b>	<b>CAS No.</b>	<b>EU Number</b>	<b>Percentage (by wt.)</b>
Molybdenum Disulfide	1317-33-5	215-263-9	1 – 7
Isopropyl Alcohol	67-63-0	200-661-7	50 - 65
Methyl Acetate	79-20-9	201-185-2	30 – 50
1,2,4 Trimethylbenzene	95-63-6	202-436-9	1-2
Urea	57-13-6	200-315-5	1-2
Ethylcellulose	9004-57-3		1-2
Mesitylene	108-67-8	203-604-4	0.2 -1

### **4. First Aid Measures**

**Ingestion:** Do not induce vomiting. Keep at rest. Aspiration into the lungs may cause chemical pneumonitis, which can be fatal. Never give anything by mouth to an unconscious person. If conscious give water to dilute stomach contents. Seek medical attention immediately.

**Eyes:** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately

**Inhalation:** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

**Skin:** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

**Additional Information:** Persons with pre-existing skin disorders, eye problems, impaired respiratory function or central nervous system conditions may be more susceptible to the effects of this substance.

**Product Name: 308 Moly Dri Plate Bulk**

#### **5. Fire Fighting Measures:**

**Flash Point:** 32°F (0°C) Tagliabue Closed Tester

**Extinguishing Media:** Carbon dioxide foam, dry chemical foam, sand, earth.

**Firefighting Procedures:** Evacuate personnel to a safe area. Wear self-contained breathing apparatus. Cool tank/containers with water spray. Fight fire from maximum distance, use extreme caution as heat may decompose material and rupture containers.

**Unusual Fire & Explosion:** Vapors may be heavier than air and travel along the ground to a distant ignition source and flash back. Containers may rupture upon heating. Runoff to sewers may create fire or explosion hazard.

**Hazards:** Hazardous gases or vapors produced in fire are carbon monoxide, carbon dioxide and unknown hydrocarbons. There is a risk of explosion if heated under confinement.

#### **6. Accidental Release Measures**

**Spill Procedures and Clean up methods:** Eliminate all sources of ignition. Evacuate surrounding area. Keep unnecessary and unprotected personal from entering. Avoid breathing vapor and mist. Absorb spills with absorbent clay or other non-combustible absorbent material. Ventilate confined spaces. Use spark-proof tool and explosion-proof equipment. Dike spill to keep out of sewers, waterways and watercourses. A vapor suppressing foam may be used to reduce vapors. Collect used absorbent material and discard as dictated by National, International, Federal, State, Provincial and local laws and regulations. Spills are very slippery and should be cleaned up promptly. Dispose of via a licensed waste disposal contractor or in accordance with all applicable National, International, Federal, State, Provincial and local laws and regulations.

**Personal Precautions:** Wear appropriate personal protective equipment when cleaning up a spill. Wear a respirator when ventilation is inadequate.

**Environmental Precautions:** U.S.A. regulations may require reporting spills of this material that could reach any surface waters. Report spills to all applicable National, International, Federal, State, Provincial and local authorities and/or the United States National Response Center at (800) 424-8802 as appropriate or required

**Product Name: 308 Moly Dri Plate Bulk**

## **7. Handling & Storage**

**Handling:** Avoid breathing vapors or mists. Avoid contact with eyes, skin, or clothing. Wash thoroughly after handling and before eating, smoking or using toilet facilities. Do not swallow product. Do not eat, drink or smoke in work areas.

**Storage:** Do not store near heat, spark, flame or strong oxidizers. Store in a cool dry place. Keep containers closed when not in use. Store in a well ventilated area. Properly bond and ground containers and transferring equipment when transferring this product to different containers. Store as a combustible liquid, Store in accordance with National Fire Protection Association recommendations or applicable National, Provincial and local laws and regulations.

**Container Warnings:** Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid and/or vapor) and can be dangerous. Do not cut, weld, braze, solder, drill, grind or expose containers to heat, flame, sparks, static electricity or other sources of ignition. There may explode and cause injury or death. Empty containers should be completely drained, properly closed and promptly returned to a drum reconditioner or disposed of properly

**Product Name: 308 Moly Dri Plate Bulk**

**8. Exposure Controls and Personal Protection**

**Occupational Exposure Limits**

<b>Ingredient</b>	<b>OSHA TWA</b>	<b>OSHA STEL</b>	<b>ACGIH TWA</b>	<b>ACGIH STEL</b>
Molybdenum Disulfide	15 mg/m <sup>3</sup> (total dust)		3.5 mg/m <sup>3</sup>	
Isopropanol	400 ppm		200 ppm	400 ppm
Methyl Acetate	200 ppm		200 ppm	
1,2,4 Trimethylbenzene	25 ppm		25 ppm	
Urea	N/E		N/E	
Ethylcellulose	N/E		N/E	
Mesitylene			25 ppm	

(s)-Skin exposure

(p) proposed limit

(c) – Ceiling limit

(l) Recommended exposure limit

(u) supplier limit

(N/E) – not established

**Engineering Controls:** Good general ventilation should be used. If applicable use process enclosures, local exhaust ventilation and other engineering controls to maintain airborne levels below recommended exposure limits. If ventilation equipment should be used it must be explosion-proof equipment.

**Personal Protective Equipment**

**Gloves:** Impervious oil resistant gloves such as Neoprene, Nitrile rubber

**Protective Clothing:** Apron and long sleeves recommended

**Eye Protection:** Chemical goggles or safety goggles

**Respiratory Protection:** None required under conditions of normal use. Use approved full face respirator with an organic cartridge if the recommended exposure limit is exceeded or when working with this material in a confined space. Use self-contained breathing apparatus for entry into confined spaces, for poorly ventilated areas and for cleaning up large spill cleanup sites. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

**Product Name: 308 Moly Dri Plate Bulk**

### **9. Physical and Chemical Properties**

**Flash Point:** 32°F (0°C) Tagliabue Closed Tester

**Specific Gravity:** 0.868

**Upper Flammable Limit (UEL):** 2%

**Lower Flammable Limit (LEL):** 12%

**Vapor Pressure:** 33 mm Hg

**Vapor Density (air =1):** 2.3

**Percent Volatile:** 50 – 95%

**Evaporation Rate:** 1-3 (n-butyl acetate)

**pH:** Not applicable

**Boiling Point:** 158°F (70°C)

**Melting Point:** Not applicable

**Appearance:** Grey green colored liquid

**Odor:** Fruity alcohol odor

**Solubility in Water:** Insoluble

***The above data are typical values and do not constitute a specification. Vapor pressure data are calculated unless otherwise specified***

### **10. Stability and Reactivity**

**Stability:** Stable at normal temperatures and storage conditions

**Materials to Avoid:** Strong oxidizing materials, acids and aldehydes

**Polymerization:** Not expected to occur under conditions of normal use

**Thermal Decomposition:** Oxides of carbon and by-products of incomplete combustion may form

**Conditions to Avoid:** Flammable in the presence of open flames, sparks and static discharge

**Product Name: 308 Moly Dri Plate Bulk**

**11. Toxicological Information:**

**Routes of Exposure:** Skin, eyes, ingestion and inhalation

**Target Organs:** Skin, eyes, ingestion, upper respiratory tract and central nervous system

**Acute Exposure**

**Ingestion:** May cause irritation of mouth, throat and digestive tract and depression of central nervous system. Toxic if swallowed. Ingestion may cause signs of alcoholic intoxication. High levels may produce a deep comma and possibly death. May cause vomiting and diarrhea. Aspiration into lungs may cause severe damage.

**Eye Contact:** Liquid contact produces severe irritation to the eyes

**Skin Contact:** Product is a severe skin irritant. Prolonged and repeated skin contact may cause redness, severe irritation and defatting of skin. Product may be absorbed through skin.

**Inhalation:** Inhalation of vapors can cause headache, dizziness, nausea, or decreased blood pressure.

**Dermal Sensitization:** This product may be a dermal sensitizer

**Inhalation Sensitization:** Product is not considered to be an inhalation sensitizer

**Carcinogenicity:**

This product does not contain any of the chemical found on the National Toxicology Programs Annual Reports, International Agency for Cancer Research's Monographs or OSHA's Subpart Z list as suspected human cancer causing agents.

This product does not contain any of the chemicals known to the State of California to cause cancer and/or birth defects

**11. Toxicological Information**

**Additional Toxicological Information:**

**Isopropanol**

**Acute Inhalation Toxicity:** LC50 8 hour 16,000 ppm (rats)

**Acute Oral Toxicity LD50:** 5,045 mg/kg (rats)

**Acute Oral Toxicity LD50:** 3,600 mg/kg (mouse)

**Acute Oral Toxicity LD50:** 8,000 mg/kg (rabbit)

**Acute Dermal Toxicity: LD50:** 500 mg/kg (rabbits)

**Product Name: 308 Moly Dri Plate Bulk**

### **11. Toxicological Information**

#### **Methyl Acetate**

**Acute Inhalation Toxicity:**

**Acute Oral Toxicity LD50:** >5,000 mg/kg (rabbit)

**Acute Dermal Toxicity: LD50:** >5,000 mg/kg (rabbits)

### **12. Environmental and Ecological Information**

#### **Ecotoxicity**

This product is soluble in water and not expected to be toxic to fish

#### **Isopropanol**

**96 hour LC50:** >1000 ppm Fathead Minnow

**96 hour LC50:** >1000 ppm Daphnia

#### **Methyl Acetate**

**96 hour LC50:** >100 mg/l Fish

#### **Environmental Fate**

**Biodegradation:** When released into the soil this material may biodegrade to a moderate extent. When released into water this material is not expected to evaporate significantly. When released into the air, this material is expected to readily degrade by photochemical reaction producing hydroxyl radicals.

**Bioaccumulation:** Not expected to bioaccumulate

**Water Class Hazard (Germany):** WK-1 according to appendix 4 VwVwS dated 27.7.2005

Do not allow product to reach ground water, water course or sewage system

### **13. Disposal Considerations**

**Waste Handling and Disposal:** This product in its neat state when discarded or disposed of is a hazardous waste according to United States Federal Regulations 40CFR 261.4 (b)(4) due to its flammability (D001).. Dispose of product in accordance with all applicable National, Federal, State, Provincial and local laws and regulations. Do not re-use empty containers

**Product Name: 308 Moly Dri Plate Bulk**

#### **14. Transport Information**

**US DOT Classification Non-Bulk:** UN1993, Flammable Liquids, N.O.S., (Isopropanol, Methyl Acetate), 3, PGIII

**US DOT Classification Bulk:** UN1993, Flammable Liquids, N.O.S., (Isopropanol, Methyl Acetate), 3, PGIII

**IMDG Classification:** UN1993, Flammable Liquids, N.O.S., (Isopropanol, Methyl Acetate), 3, PGIII, (Flash Point 0°C Tagliabue Closed Tester)

**IATA/ICAO Classification:** UN1993, Flammable Liquids, N.O.S., (Isopropanol, Methyl Acetate), 3, PGIII

#### **15. Regulatory Information**

##### **Hazard Symbols**

EU



Xi Harmful  
Xn

**R11 Highly Flammable**

**R20 Harmful by inhalation**

**R22 Harmful if swallowed**

**R36/37/38 Irritating to eyes, respiratory system and skin**

**R36/38 Irritating to eyes and skin**

**R36 Irritating to eyes**

**R38 Irritating to skin**

**R67 Vapors may cause drowsiness and dizziness**

**Product Name: 308 Moly Dri Plate Bulk**

**15. Regulatory Information**

**Relevant Phrases:**

**S2 Keep out of the reach of children**

**S7 Keep container tightly closed**

**S16 Keep away from sources of ignition – No smoking**

**S23 Do not breathe gas/fumes/vapours/spray**

**S24 Avoid contact with skin**

**S25 Avoid contact with eyes**

**S26 in case of contact with eyes rinse immediately with plenty of water and seek medical advice**

**S33 Take precautionary measures against static discharge**

**S36/37/39 Wear suitable protective clothing, gloves and eye/face protection**

**S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label**

**H226 – Flammable liquid or vapor**

**H302 – Harmful if swallowed**

**H304- May be fatal if swallowed and enters airways**

**H312 – Harmful in contact with skin**

**H315 – Causes skin irritation**

**H319 – Causes serious eye irritation**

**H332 – Harmful if inhaled**

**H336 – May cause drowsiness or dizziness**

**GHS**



**Product Name: 308 Moly Dri Plate Bulk**

**15. Regulatory Information**

**US Regulations**

**TSCA Inventory:** All of the components in this material are on the US TSCA Inventory or are exempt.

**State of California Proposition 65:** This product does not contain any of the chemicals known to the State of California to cause cancer and/or birth defects

**US EPA SARA Title III and CERCLA Listings and Reportable Quantities**

This product contains 50 to 65% Isopropyl Alcohol which is listed on the United States EPA's Title III and CERCLA Lists

**US EPA Section 311/313 Classifications**

Acute	Chronic	Fire	Pressure	Reactivity
X		X		

**US EPA Section 313 Chemicals**

This product contains 50 to 65% Isopropyl Alcohol which is listed on the United States EPA's Section 313 List

Component	CAS#	%	RQ (lbs.)	RQ (gals.)
Isopropyl alcohol	67-63-0	50-65	100	25 gallons

**US Tariff Heading Number:** 3403.99.0000

**Schedule B Number:** 3403.99.0000

**Other Regulations:**

**Canada:** All of the ingredients of this product are in compliance with the Canadian Environmental Protection Act and are present on the Domestic Substance List

**Canadian WHMIS Classifications and Symbols:**



Class B2 Flammable Class D2B – Skin/Eye Irritant

**EEC:** All components are in compliance with the EC Seventh Amendment Directive 92/32/EEC

**Product Name: 308 Moly Dri Plate Bulk**

**16. Other Information**

**For additional information call +1 314-865-4100 (outside the US and Canada) or 1-800-325-9962 inside the United States and Canada.**

Although the information and recommendations set forth herein (hereafter referred to as information) are presented in good faith and believed to be accurate and factual as of the date hereof, Schaeffer Mfg. Company makes no representation as to the completeness or accuracy thereof. Information is supplied upon the condition that the person receiving the same will make their own determination as to its safety and suitability for their purposes prior to use. In no event will Schaeffer Mfg. Company be responsible for damages of any natures whatsoever resulting from the use or reliance upon information. **No representation or warranty, either expressed or implied, of merchantability or fitness for a particular purpose is made with respect to information of the product to which the information refers. Compliance with all applicable federal, state, and local regulations remains the responsibility of the user.**