



## SPECIALIZED LUBRICANTS

### 1. Substance/Product Identification

**Product Name:** 286C High Temperature Grease with Copper

**Company/Address:** Schaeffer Mfg

102 Barton Street

Saint Louis, Missouri 63104

USA

**Synonyms:**

**Preparation/Revision Date:** 07/22/2010

**Product Use/Type:** Extreme Pressure High Temperature Lubricating Grease

**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:** 286C Version 1.0

### 2. Hazards Identification

**Appearance:** Bronze-black color

**Odor:** Petroleum odor

**Principal Hazards:** Irritation to respiratory tract

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

**Health:** 1

**Fire:** 1

**Reactivity:** 0

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

**Health:** 1

**Fire:** 1

**Reactivity:** 0

See Section 11 for complete health hazard information

**Product Name: 286C High Temperature Grease with Copper**

### **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>
Polyether Polyol	25322-69-4		80-85
Tricrysel Phosphate (mixed isomers)	1330-78-5	215-58-8	0.5 -1.5
Graphite	7782-42-5	231-955-3	1-4
Molybdenum Disulfide	1317-33-5	215-263-9	1-5
Fumed Silica	7631-86-9	231-545-4	5-8
Copper Flake	7440-50-8	231-159-6	1-4
Dimethyl methylphosphonate	756-79-6	212-052-3	1-3

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

**Ingestion:** Drink plenty of water. Do not induce vomiting. Seek medical attention immediately.

**Eyes:** Flush eyes with cool clean water for 15 minutes. Seek medical attention immediately

**Inhalation:** Remove to fresh air. If breathing is difficult administer oxygen

**Skin:** Wash affected areas with soap and water. Remove contaminated clothing. If irritation or rash develops or persists seek medical attention

**Additional Information:** None

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

**Flash Point:** Base oils 450°F (232°C)

**Extinguishing Media:** Dry chemical foam, Carbon dioxide extinguishing powder

**Firefighting Procedures:** As in any fire wear a self contained breathing apparatus pressure demand, MSHA/NIOSH (Approved or Equivalent) and full protective gear

**Unusual Fire & Explosion:** Dense black smoke

**Hazards:** None expected

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

**Spill Procedures and Clean up methods:** Use absorbent materials to contain spill. Collect used absorbent material and discard as dictated by Federal, State, Provincial and local laws and regulations. Keep out of sewers and watercourses

**Personal Precautions:** Wear appropriate personal protective equipment when cleaning up a spill

**Environmental Precautions:** This material is not expected to present any environmental problems other than those associated with oil spills if spilled into a watercourse or waterway. The spill must be reported to the National Response Center (U.S. Coast Guard) or the appropriate governmental authorities if the product is spilled into rivers, creeks, streams or other natural waterways or courses. The Coast Guard's Toll Free No. is 800-424-8802.

#### **7. Handling & Storage**

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

**Storage:** Do not store product at elevated temperatures. Store in a cool dry place that has adequate ventilation. Do not store near food or feed products. Keep containers closed when not in use.

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**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>
Polyether Polyol	15 mg/m <sup>3</sup>		10 mg/m <sup>3</sup>	
Tricrysel Phosphate (mixed isomers)	10 mg/m <sup>3</sup>		15 mg/m <sup>3</sup>	
Graphite	10 mg/m <sup>3</sup>		15 MPPCF	
Molybdenum Disulfide	10 mg/m <sup>3</sup>		15 mg/m <sup>3</sup>	
Fumed Silica			10 mg/m <sup>3</sup>	
Copper Flake	0.1 mg/m <sup>3</sup>		0.2 mg/m <sup>3</sup>	
Dimethyl methylphosphonate	NE		NE	

- (s)-Skin exposure
- (p) proposed limit
- (c) – Ceiling limit
- (l) Recommended exposure limit
- (u) supplier limit
- (N/E) – not established

**Other Exposure Limits**

**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

**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

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

**Flash Point:** Base oils 450°F (232°C)  
**Specific Gravity:** 1.01 gm/cm<sup>2</sup>  
**Upper Flammable Limit (UEL):** Not Determined  
**Lower Flammable Limit (LEL):** Not determined  
**Vapor Pressure:** Not determined  
**Vapor Density (air =1):** Heavier than air  
**Percent Volatile:** Nil  
**Evaporation Rate:** Not Determined  
**pH:** Not applicable  
**Boiling Point:** Base oils >400°F (>204.4°C)  
**Melting Point:** >500°F (>260°F)  
**Appearance:** Bronze- black color  
**Odor:** Petroleum 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 under normal conditions of normal use  
**Materials to Avoid:** Strong oxidizers, acids and bases  
**Polymerization:** Will not occur under conditions of normal use  
**Thermal Decomposition:** Carbon dioxide and carbon monoxide. Byproducts of incomplete combustion  
**Conditions to Avoid:** Avoid breathing mists and vapors

**Product Name: 286C High Temperature Grease with Copper**

**11. Toxicological Information:**

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

**Target Organs:** Skin, eyes, upper respiratory tract

**Acute toxicity**

Polyether Polyol

Oral LD50 > 15,000 mg/kg (rat)

Tricrysel Phosphate (mixed isomers)

Oral LD50 >4,640 mg/kg (rat)

Dermal LD50 >4,640 mg/kg (rabbit)

Fumed Silica

Oral LD50 3,160 mg/kg (rat)

Dimethyl methylphosphonate

Oral LD50 >5,000 mg/kg (rat)

Dermal LD50 >2,000 mg/kg (rabbit)

**Acute Exposure**

**Ingestion:** Nausea, diarrhea

**Eye Contact:** May cause irritation and redness to eyes

**Skin Contact:** Prolonged and repeated contact may cause irritation, redness and dryness to skin

**Inhalation:** Heating can generate vapors and mists that can cause nausea, dizziness and other upper respiratory irritation if inhaled.

**Dermal Sensitization:** Product is not considered to be a dermal sensitizer

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

**Carcinogenicity:** Product does not contain any components listed by ACGIH, IRAC, NIOSH, NTP or OSHA

**Additional Toxicological Information:** No data available to indicate the product or any of its components are present at greater than 0.1% are mutagenic, genotoxic or teatogenic

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

### **Ecotoxicity**

Tricrysel phosphate (mixed isomers)  
LC50/96 hours 260µg/l (rainbow trout)

Dimethyl Methylphosphonate  
EC50 >10mg/l (bacteria)  
LC50/96 hours 2,259 mg/l (Oncorhynchus mykiss)

### **Environmental Fate**

**Biodegradation:** This product is not readily biodegradeable

**Bioaccumulation:** Product has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

**Water Class Hazard (Germany):** WK-2 according to appendix 4 VwVwS dated 27.7.2005

## **13. Disposal Considerations**

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

## **14. Transport Information**

**US DOT Classification Non-Bulk:** Not regulated

**US DOT Classification Bulk:** Not regulated

**IMDG Classification:** Not regulated

**IATA/ICAO Classification:** Not regulated

**Canadian TDG:** Not regulated

**Product Name: 286C High Temperature Grease with Copper**

**15. Regulatory Information**

**Hazard Symbols**



**Xn Harmful**

R 68/20/21/22 Harmful: Possible risk of irreversible effects through inhalation, in contact with skin and if swallowed

**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 that are listed on the State of California's Proposition 65 List as potential cancer causing agents or reproductive toxins

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

**US EPA Section 311/313 Classifications**

This product does not contain greater than 1% of any chemical substance listed under the SARA Title III Section 313, CERCLA's 302/304 and 102(a) Lists

**Section 311/312 (40CFR 370)**

Acute (Immediate)	Chronic (Delayed)	Fire	Reactive	Pressure Generating
X				

**US EPA Section 313 Chemicals**

Not applicable

**US Tariff Heading Number:** 3403.19.0000

**Schedule B Number:** 3403.19.0000

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**15. Regulatory Information**

**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:** This product is not considered to be a WHMIS Hazard

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

**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.**