

## Material Safety Data Sheet

### **Section 1. Chemical Product and Company Identification**

Product Name: **PHC 300AL-ADDS Permawick**  
Synonyms: Hydro-Cracked Mineral oil based lubricant with engineered fiber  
Product Use: Aluminum Sleeve Bearing oil

Supplier / Manufacturer:

**Permawick Company**  
**255 E. Brown Street**  
**Suite 100**  
**Birmingham, Michigan 48009**  
**Tel: (248) 433-3500 Fax: (248) 433-1824**

### **Emergency Phone Numbers:**

Monday - Friday, 8 am – 4:30 pm (EST) (812) 376-0703  
Chemtrec 24 hr.: (800) 424-9300 (US and Canada)

**Information Contacts:** For technical information contact your sales representative.

### **Section 2. Composition/Information on Ingredients**

Criteria for Listing Components in the Composition Section:

Carcinogens are listed when present at 0.1% or greater.  
Components considered hazardous by OSHA at 1.0% or greater.  
Non-hazardous components at 3.0% or greater.

This is not intended to be a complete compositional disclosure.

### ***Hazardous Classification:***

	<b><u>CASRN</u></b>	<b><u>Percent (by wt.)</u></b>
1. Hydrotreated / Hydro-Isomerized C15-C55High VI Paraffinics	64742-54-7	55 – 75
2. Permawick Fiber	Proprietary	15 - 20
3. Triphenyl Phosphates	68937-41-7	< 0.6

\* See section 8 for Exposure Guidelines \*

### **Section 3. Hazards Identification**

#### **\*\*\*\*Emergency Overview\*\*\*\***

This compound is not an acute or physical hazard under normal conditions of use. Under fire conditions there is a possibility of toxic phosphorous oxide vapors being released.

#### **Potential Health Effects, Signs and Symptoms of Exposure:**

- Inhalation: Negligible hazard at ambient (-18 to 38°C / 0 to 100°F) or recommended blending temperature. If overheated, hydrogen sulfide may be released causing respiratory distress without a possible warning odor.
- Ingestion: Minimal toxicity.
- Eye Contact: Slightly irritating.
- Skin Contact: Prolonged or repeated contact may result in defatting, and/or drying of the skin which may lead to skin irritation and dermatitis.

**Medical Conditions aggravated by exposure:** None noted.

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

##### **FIRST AID**

- Eye Contact: Immediately flush eyes with plenty of water. If irritation develops or persists seek medical attention immediately. Do not rub eyes.
- Ingestion: Call a physician or poison control center immediately if large amount is swallowed. Do not induce vomiting. If conscious, give milk or water to dilute stomach contents. Do not give anything by mouth to an unconscious person.
- Inhalation: Immediately remove victim to fresh air. If victim has stopped breathing give artificial respiration, preferably by mouth to mouth. Get medical attention immediately.
- Skin Contact: Wash affected area immediately with soap and plenty of water. Remove contaminated clothing and wash clothing before reuse. If symptoms occur obtain medical attention immediately.

#### **Section 5. Fire Fighting Measures**

- |                        |               |                        |               |
|------------------------|---------------|------------------------|---------------|
| Flash Point:           | 436°F         | Method used:           | ASTM D92      |
| Autoignition Point:    | not available |                        |               |
| Lower explosive limit: | not available | Upper explosive limit: | not available |
| NFPA                   |               |                        |               |

**Other Flammable Properties:** If in a fire, burning lubricant forms carbon dioxide, carbon monoxide, toxic gases (hydrogen sulfide).

**Extinguishing Media:** Water spray, fog, foam, dry chemical, or CO<sub>2</sub>.

##### ***Fire Fighting Precautions and Procedure:***

Firefighters should wear self - contained breathing apparatus (MSHA/NIOSHA approved or equivalent) in the positive - pressure mode with full protective gear especially when there is the possibility of exposure to smoke, fumes or hazardous decomposition of products. Violent frothing may occur. Water spray carefully applied has frequently been used with success in extinguishing such fires by causing the frothing to occur only on the surface and this foaming action blankets and extinguishes the fire. (NFPA 325M - 1984)  
Containers can build up pressure if exposed to heat (fire). Cool with water spray.

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

### ***Spill or Release Procedures:***

Ventilate area, absorb spill with inert material, and place in appropriate chemical waste container. Obey any federal, state, and local laws and regulations. U.S. Coast Guard regulations require immediate reporting of spills that could reach any waterway including intermittent dry creeks. Do not flush into sewers discharging into domestic water systems or natural waterways. Use personal protective equipment (Sec.8). Spilled material will cause a slippery surface. Avoid trips and falls.

## **Section 7. Handling and Storage**

**Handling:** Thoroughly wash after handling. Use adequate ventilation and avoid breathing vapor or mist. Avoid contact with eyes, skin, and clothing.

**Storage:** Keep container tightly closed when not in use and during transport.  
Maximum storage temperature: 120°F  
Maximum loading / unloading temperature: 140°F

## **Section 8. Exposure Controls / Personal Protection**

### ***Exposure Guidelines:***

<b><u>Component</u></b>	<b><u>CAS#</u></b>	<b><u>Exposure Limits</u></b>	
Hydrotreated & Hydroisomerized C15 –C55 paraffinics	64742-54-7	OSHA PEL: 5 mg/m <sup>3</sup> (oil mist) ACGIH TLV-TWA: 5 mg/m <sup>3</sup> (oil mist) ACGIH TLV-STEL: 10 mg/m <sup>3</sup> (oil mist)	
Tri-aryl Phosphates	68937-41-7	OSHA TLV-TWA: 3 mg/m <sup>3</sup> (oil mist) ACGIH TLV-TWA: 3 mg/m <sup>3</sup> (oil mist)	
Fatty acid esters	*****	OSHA TWA: NONE ACGIH TWA: NONE	
Alkenes	68855-60-7	OSHA TWA: NOT AVAILABE ACGIH TWA: NOT AVAILABE	

**Engineering Controls:** Adequate ventilation must be provided to control concentration below exposure guidelines.

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

Boiling Point: Not available  
Pour Point: +20°F (ASTM D-97)  
Vapor Pressure: < 1 mm Hg @ 300°F  
Vapor Density (Air = 1): heavier than air  
Specific Gravity: 0.88 @ 60 / 60°F  
Density: see specific gravity  
pH: Not available  
Viscosity: 292 SUS @ 100°F

MSDS PHC 300AL-ADDS Permawick  
REV. # 1  
REV. DATE: May 4<sup>th</sup> 2006

Evaporation Rate: 57.9 SUS @ 210°F  
Solubility in water: slower than Butyl Acetate  
Appearance and color: Negligible  
Odor: Amber viscous liquid  
% volatiles by volume: mild odor  
Volatility by weight: 0  
not available

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

Stability: Stable under normal storage conditions. Do not heat over 70°C or 155°F.  
Hazardous Polymerization: Will not occur during normal conditions.  
Conditions to avoid: Mechanical impact: none  
Static discharge: none  
Material Incompatibility: Avoid chlorine, fluorine, acids and other strong oxidizers.

#### ***Hazardous Decomposition Products:***

Carbon dioxide, carbon monoxide, hydrogen sulfide. Oxides of Nitrogen.

### **Section 11. Toxicological Properties**

Inhalation: Testing not conducted.  
Ingestion: LD50 (rat) believed to be > 5.00 g/kg  
Dermal: LD50 (rabbit) believed to be > 2.00 g/kg  
Mutagenicity: No data available.  
Carcinogens: none NTP: none IARC: none

#### ***Other Toxicological Information:***

Specific toxicity tests have not been conducted on this product. The hazard evaluations are based on information from similar products, the ingredients, technical literature, and/or professional experience.

### **Section 12. Ecological Information**

#### **Note: This data below is for 100% Triaryl Phosphate for**

LC50 in rainbow trout (96H) = 1.6 (1.2 - 2.2) mg/L  
LC50 in fathead minnow (96H) = 10.8 (8.0 - 14.6) mg/L  
EC50 in Daphnia magna (48H) = 2.44 (1.93 - 3.08) mg/L  
NOAEC in algae (72H) = 0.31 mg/L  
NOAEC in algae (96H) = 1.3 mg/L

In a flow-through bioconcentration test with rainbow trout (*Oncorhynchus mykiss*), steady-state BCF values ranged from 1.74 to 6.19, showing that this material did not significantly bioconcentrate.

Avoid Releasing to the environment

### **Section 13. Disposal Considerations**

**Disposal Method:** All recovered material should be packaged, labeled, transported, and disposed or reclaimed in accordance with federal, state and local regulations. Incineration is the preferred method. Reclaim where

MSDS PHC 300AL-ADDS Permawick  
REV. # 1  
REV. DATE: May 4<sup>th</sup> 2006

possible.

#### **Section 14. Transportation Information**

##### **U.S. Department of Transportation:**

DOT proper shipping name: not regulated  
DOT classification: not regulated

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

##### **U.S. Federal Regulations**

OSHA: Preparation of this document is in accordance with the MSDS requirements of the OSHA Hazard Communication Standard.

SARA Section 311/312:

Hazard classification: Hazardous by OSHA under 29CFR 1910.1200(d).

SARA Section 302:

Extremely hazardous substances: none

SARA Section 313:

This product contains the following substances subject to the reporting Requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:  
Triaryl Phosphate (Present at less than 1%)

TSCA:

A component of this product are either on the TSCA Inventory or exempt (i.e. impurities, a polymer complying with the exemption rule at 40 CFR 723.250) from the Inventory.

CERCLA Hazardous Materials: None reported.

OSHA Hazard Communication Standard:

Contains a component listed by OSHA. Contains a component listed by ACGIH.

RCRA:

The unused product is not specifically listed by the E.P.A. as a hazardous waste (40CFR, Part 261D). The used product may be regulated by state or local laws.

Clean Water Act/Oil Pollution Act:

This product is considered an oil under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Act of 1990. Discharge or spills which produce a visible sheen on either surface water, or in waterways/sewers which lead to surface water, or in waterways / sewers which lead to surface water must be reported to the National Response Center at 800-424-8802.

##### **State Regulations:**

**Triphenyl phosphate: (Normally reported when concentrations are above 1%)**

The above regulatory information represents only selected regulations and is not meant to be a complete list.

### **Section 16. Other Information**

HMIS Rating System: Health = 1                      Flammability = 1      Reactivity = 0  
Ratings key:                      4 = Highest hazard,      0 = Lowest hazard,      \* = Chronic Health Hazard

#### **Revision summary:**

This is the first issue of this MSDS in the ANSI Z400.1 - 1993 format

Approval date: 02/05/97

Supersedes: 04/15/96

This information presented herein is believed to be factual as it has been derived from works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as warranty or representation for which Permawick bears legal responsibility. Conditions of use and suitability of the product for particular uses are beyond our control. Any recommendations should be reviewed by the user in the specific context of the intended use to determine whether they are appropriate. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents.

ACGIH:                      American Conference of Governmental Industrial Hygienists  
ANSI:                        American National Standards Institute  
CASRN:                     Chemical Abstracts Service Registry Number  
CERCLA:                    Comprehensive Emergency Response, Compensation and Liability Act  
HMIS:                      Hazardous Material Identification System  
IARC:                       International Agency for Resource and Conservation  
NTP:                        National Toxicology Program  
OSHA:                      Occupational Health and Safety Organization  
PEL:                        OSHA Permissible Exposure Limit  
RCRA:                      Resource Conservation and Recovery Act  
SARA:                       Superfund Amendment Reauthorization Act  
STEL:                       Short Term Exposure Limit  
TLV:                        Threshold Limit Values  
TSCA:                      Toxic Substances Control Act  
TWA:                        Time Weighted Average