



CountryMark™ sources and delivers only the very best in lubricant products, under the brand name Universal Cooperative. This brand is jointly shared with Universal Co-Op, CHS Inc. and CountryMark and represents a cooperative partnership dating back to the 1950's.

*This MSDS contains health and safety information required by the Occupational Health and Safety Administration's (OSHA) Hazard Communication Standard (29 CFR 1900.1200). The MSDS also contains information that will help you comply with various chemical control regulations including Title III of the Superfund Amendment and Reauthorization Act of 1986 (SARA). Employers must make this information available to their employees as part of their Hazard Communication Program.*



# MATERIAL SAFETY DATA SHEET

## Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

CHS Inc.  
P.O. Box 64089  
Mail station 525  
St. Paul, MN 55164-0089

Transportation Emergency (CHEMTREC): 1-800-424-9300  
Technical Information: 1-651-355-8443  
MSDS Information: 1-651-355-8438

PRODUCT NAME: Turbine XL (ISO 32, 46, 68, 100)

MSDS: 0121-E51B - Rev.D (4.15.05)

COMMON NAME: Industrial hydraulic fluid, Turbine Oil

CHEMICAL FORMULA: Mixture

CHEMICAL NAME: Lubricating Oil

CHEMICAL FAMILY: Hydrocarbon

## Section 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

INGREDIENTS	PERCENTAGES (by weight)	PEL (OSHA)	TLV (ACGIH)	CAS #
Oil, Solvent Neutral	98-99%	N/A	5 mg/m <sup>3</sup> TWA (Oil Mist)	64742-65-0
Performance Additives	Proprietary	N/A	N/A	

(TWA) - Time Weighted Average is the employee's average airborne exposure in any 8-hour work shift of a 40-hour work week which shall not be exceeded.  
(STEL) - Short Term Exposure Limit is the employee's 15-minute time weighted average exposure which shall not be exceeded at any time during a work day unless another time limit is specified.

## Section 3 - HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

### POTENTIAL HEALTH EFFECTS

ROUTES OF ENTRY: (Eye Contact, Dermal, Inhalation.)

### ACUTE EFFECTS OF OVER EXPOSURE:

**Eyes** - Contact with eyes may cause irritation.

**Skin** - Contact with skin may cause irritation.

**Inhalation** - May cause irritation of the nose and throat.

**Ingestion** - May cause nausea and vomiting. Large quantities may effect the central nervous system.

CHRONIC EFFECTS OF OVER EXPOSURE: No adverse effects anticipated.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Existing dermatitis and respiratory conditions.

CARCINOGENICITY: NTP: No

IARC: No

OSHA: No

## Section 4 - FIRST AID MEASURES

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### EMERGENCY AND FIRST AID PROCEDURES:

**Eye Contact** - If material comes in contact with the eyes, immediately wash the eyes with large amounts of water for 15 minutes, occasionally lifting the lower and upper lids. Get medical attention.

**Skin Contact** - If the material comes in contact with the skin, wash the contaminated skin with soap and water promptly. If the material penetrates through clothing, remove the clothing and wash the skin with soap and water promptly. If irritation persists after washing, get medical attention immediately.

**Inhalation** - If person breathes in large amounts of material, move the exposed person to fresh air at once. If breathing has stopped, perform artificial respiration. Keep the person warm and at rest. Get medical attention as soon as possible.

**Ingestion** - If material has been swallowed, do not induce vomiting. Get medical attention immediately.

## Section 5 - FIRE - FIGHTING MEASURES

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**FLASH POINT:** >390°F (>200°C)

**AUTO IGNITION TEMP:** >500° F

**FLAMMABLE LIMITS IN AIR**  
**% BY VOLUME**

**LOWER**  
N/A

**UPPER**  
N/A

**EXTINGUISHING MEDIA:** Use water spray to cool fire exposed surfaces and to protect personnel. Use foam, dry chemical or water spray (fog) to extinguish fire.

**SPECIAL FIRE FIGHTING PROCEDURES:** When fighting fires wear full turnout gear and self contained breathing apparatus. Water may cause splattering. Material floats on water.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:** Toxic fumes gases or vapors may evolve on burning.

**HAZARD RATINGS:**    **NFPA 704:**    Health-   1      Fire-   1      Reactivity-   0    
                              **HMIS:**            Health-        Fire-        Reactivity-    

## Section 6 - ACCIDENTAL RELEASE MEASURES

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**STEPS TO TAKE IF MATERIAL IS RELEASED OR SPILLED:** Personal protective equipment should be worn. Ventilate area if confined or poorly ventilated. Contain with dikes or absorbent to prevent migration to sewers/streams. Take up small spill with dry chemical absorbent; large spills may require pump or vacuum prior to absorbent. May require excavation of severely contaminated soil. Avoid contact with skin and eyes.

## Section 7 - HANDLING AND STORAGE

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**HANDLING AND STORING:** Store in closed container away from all ignition sources. Handling temperatures should not exceed 175°F (80°C). Wash thoroughly after handling. Do not store at temperatures exceeding 113°F (45° C). Odorous and toxic fumes may form from the decomposition of this product if stored at excessive temperatures for extended periods of time. Open containers carefully and only in well ventilated areas or use appropriate respiratory protection. Store in well ventilated area.

## Section 8 - EXPOSURE CONTROL - PERSONAL PROTECTION

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**ENGINEERING CONTROLS:** Ventilate to control mists and vapors below exposure limits.

**RESPIRATORY EQUIPMENT:** Normally not required, if exposure limits are exceeded use a Niosh approved organic vapor respirator. Self contained breathing apparatus is recommended for entry into confined spaces or other poorly ventilated areas and for large spill clean-up sites.

**EYE PROTECTION:** Chemical goggles or faceshield recommended to minimize eye contact.

**PROTECTIVE CLOTHING:** Impervious (nitrile) gloves recommended when handling material to minimize exposure. Long sleeve shirts, chemically protective aprons and chemically protective boots are recommended for contact exposure or spill clean-up. Do not wear watches, rings or similar apparel that could entrap the material next to the skin.

**OTHER (SAFETY SHOWERS, EYE WASH STATIONS, ETC.):** Water should be available for flushing and washing when exposure exists. Launder soiled clothes. Discard shoes or other leather articles saturated with the material.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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**APPEARANCE:** Amber liquid

**ODOR:** Mild odor

**BOILING POINT:** N/D

**SPECIFIC GRAVITY (water=1):** 0.8400 - 0.8800

**VAPOR PRESSURE:** <1 mm Hg 68° F

**VAPOR DENSITY (air=1):** N/D

**SOLUBLE IN WATER:** Insoluble

**EVAPORATION RATE (ether=1):** <1

**pH:** N/D

## Section 10 - STABILITY AND REACTIVITY

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**STABILITY:**

**STABLE**  X  (At room temperature and pressure. See handling and storage section)

**UNSTABLE**    

**INCOMPATIBILITY -**

**CONDITIONS TO AVOID:** See handling and storage section.

**MATERIALS TO AVOID:** Acids, oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Smoke, carbon monoxide, aldehydes, hydrogen sulfide and alkyl mercaptans may be released. Under combustion conditions, oxides of the following elements will be formed: Magnesium, calcium, nitrogen, sulfur, carbon.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## Section 11 - TOXICOLOGY INFORMATION

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Please refer to Section 3 for available information on potential health effects.

**Note:** CHS Inc. has not conducted specific toxicity tests on this product.

## Section 12 - ECOLOGICAL INFORMATION

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No specific ecological data are available for this product. Please refer to Section 6 for information regarding accidental releases and Section 15 for regulatory reporting information.

**Note:** CHS Inc. has not conducted specific ecological tests on this product.

### Section 13 - DISPOSAL CONSIDERATION

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**WASTE DISPOSAL PROCEDURES:** Place contaminated materials in a disposable container and dispose of in accordance with Local, State and Federal environmental regulations.

### Section 14 - TRANSPORTATION

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**DOT PROPER SHIPPING NAME:** N/A

**DOT HAZARD CLASS:** N/A

**DOT IDENTIFICATION NUMBER:** N/A

**DOT EMER. RESPONSE GUIDE NO.:** N/A

### Section 15 - REGULATORY INFORMATION

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This product **does not** contain toxic chemicals subject to the reporting requirements of SARA Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

CAS Number  
N/A

Chemical Name

Percent by Weight

**SARA SECTION 311-312 HAZARD CATEGORIES (40 CFR 370.2):**

**FIRE:** No

**SUDDEN RELEASE OF PRESSURE:** No

**REACTIVE:** No

**ACUTE:** No **CHRONIC:** No

### Section 16 - OTHER INFORMATION

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Prepared By: Norm Rath

Date: April 15, 2005

Approved by: Hue Lam

Supersedes: 2/8/00

Title: EHS Compliance Specialist

Reason for Issue: Formulation review

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THE INFORMATION CONTAINED IN THIS MSDS RELATES ONLY TO THE SPECIFIC MATERIAL IDENTIFIED. IT DOES NOT COVER USE OF THAT MATERIAL IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PARTICULAR PROCESS. IN COMPLIANCE WITH 29 C.F.R. 1910.1200(g), CHS INC. HAS PREPARED THIS MSDS IN SEGMENTS, WITH THE INTENT THAT THOSE SEGMENTS BE READ TOGETHER AS A WHOLE WITHOUT TEXTUAL OMISSIONS OR ALTERATIONS. CHS INC. BELIEVES THE INFORMATION CONTAINED HEREIN TO BE ACCURATE, BUT MAKES NO REPRESENTATION, GUARANTEE, OR WARRANTY, EXPRESS OR IMPLIED, ABOUT THE ACCURACY, RELIABILITY, OR COMPLETENESS OF THE INFORMATION OR ABOUT THE FITNESS OF CONTENTS HEREIN FOR EITHER GENERAL OR PARTICULAR PURPOSES. PERSONS REVIEWING THIS MSDS SHOULD MAKE THEIR OWN DETERMINATION AS TO THE MATERIAL'S SUITABILITY AND COMPLETENESS FOR USE IN THEIR PARTICULAR APPLICATIONS.