Manufactured by: **TENNANT** 701 North Lilac Drive P.O. Box 1452 Minneapolis, MN 55440-1452

SAFETY DATA SHEET ISO 32 Hydraulic Fluid



EMERGENCY PHONE NUMBERS:

CHEMTREC: (800) 424-9300 (24 hrs) CANADA: CANUTEC (613) 996-6666 (24 hrs)

District of Columbia: (202) 483-7616 (24 hrs) MSDS Requests: (800) 553-8033

By: Kevin Hobbie (763) 540-1471 (days)

PREPARATION INFO:

(612) 834-0118 (mobile)

This Material Safety Data Sheet (MSDS) has been prepared in compliance with the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200. The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein.

Issue Date:	March 21, 2013	HAZARD RATING	NFPA	HMIS		NFPA	HMIS	4 = Extreme	3 = High	0 = Insignificant
Supersedes:	March 16, 2010	Health	0	0	Reactivity	0	0	2 = Moderate	1 = Slight	COR = Corrosive
		Fire	1	1	Special	0	Χ			X = Ask supervisor for guidance.
***** I. IDENTIFICATION *****										

US DEPT OF TRANSPORTATION (GROUND): PRODUCT NAME: ISO 32 Hydraulic Fluid

> UN#: None Allocated PACKAGING GROUP: Not Applicable

HAZARD CLASSIFICATION: PART NUMBER: 1057707, 1057708, 1057709 Non Regulated

CHEMICAL FAMILY: Petroleum Based Oil SHIPPING NAME: Not Applicable

MATERIAL USE: Hydraulic Fluid

***** II. PHYSICAL DATA *****

BOILING POINT: >600°F / >316°C FREEZE POINT: Not Available / Not Available

DENSITY: >2.0 % VOLATILE: Not Available

VAPOR PRESSURE: mm Hg at 20 °C. **SOLUBILITY IN WATER:** < 0.1 Negligible

ODOR THRESHOLD: Not Available Not Applicable

PHYSICAL FORM: Liquid VAPOR DENSITY: Not Available THAN AIR APPEARANCE AND ODOR: Not Available Blue/Mild Odor COEFFICIENT WATER/OIL DISTRIBUTION:

EVAPORATION RATE: THAN N-BUTYL ACETATE VOC g/L / lb/gal: Not Available

MECHANICAL IMPACT: Not Available STATIC DISCHARGE: Not Available

***** III. INGREDIENTS *****

All components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory. Hazardous ingredients, defined as Controlled Products by Canadian WHMIS, are identified by (HZD) after the chemical ingredient. This product has been classified in accordance with the hazard criteria of the CPR (Controlled Products Regulations) and the MSDS contains all of the information required by the CPR. All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

OSHA PEL

ACGIH TLV

ACGIH TLV LC50 INHALATION CHEMICAL CAS# % W ppm TWA ppm STEL ppm LD50

No globally reportable MSDS ingredients.

SARA Title III Section 313 Information: Components present in this product at a level which could require reporting under this statute are:

California Proposition 65 Information: This product contains the following chemicals designated as cancer and/or reproductive hazards under California Proposition 65.

None

ISO 32 Hydraulic Fluid

***** IV. FIRE AND EXPLOSIVE HAZARD DATA *****

FLAMMABLE: No FLASH POINT: >374°F / >190°C Setaflash

FLAMMABLE LIMITS: % LEL: 0.9 % UEL: 7.0 AUTOIGNITION TEMPERATURE Not Available / Not Available

EXTINGUISHING MEDIA: Use National Fire Protection Association (N.F.P.A.) Class B extinguishers (carbon dioxide, dry chemical or foam).

SPECIAL FIRE FIGHTING PROCEDURES:

Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. For fires in enclosed areas, firefighters must use self-contained breathing apparatus. Prevent runoff from entering streams, sewers, or drinking water supply.

UNUSUAL FIRE EXPLOSION HAZARD:

Pressurized mists may form a flammable mixture.

***** V. REACTIVITY DATA *****

STABILITY: Stable HAZARDOUS POLYMERIZATION (May Occur/Will Not Occur): Will Not

CONDITIONS TO AVOID: Extreme heat and high energy sources of ignition. **INCOMPATIBILITY (materials to avoid):** Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Product does not decompose at ambient temperatures.

***** VI. HEALTH HAZARD DATA *****

EFFECTS OF OVEREXPOSURE: THRESHOLD LIMIT VALUE - See Section III for individual ingredients.

PRIMARY ROUTES OF ENTRY: Skin Contact

SKIN CONTACT/ABSORPTION: Prolonged skin contact may be mildly irritating.

EYE CONTACT: May cause irritation and discomfort. While working with this product, contact lenses should NOT be worn.

INGESTION (Swallowing): May produce nausea. INHALATION (Breathing):

None expected.

SUPPLEMENTAL HEALTH INFORMATION:

Ingredients are NOT carcinogenic, based on the International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) lists.

***** VII. EMERGENCY AND FIRST AID PROCEDURES *****

SKIN CONTACT: Wash contact areas with soap and water. High pressure accidental injection through the skin requires immediate medical attention for

possible incision, irrigation and/or debridement.

EYE CONTACT: Flush thoroughly with water. If irritation persists, call a physician.

INGESTION (Swallowing): Not expected to be a problem. Seek medical attention if discomfort occurs. Do not induce vomiting.

INHALATION (Breathing): Not expected to be a problem. However, if respiratory irritation, dizziness, nausea or unconsciousness occurs due to

excessive vapor or mist exposure, seek immediate medical assistance. If breathing has stopped, assist ventilation with a

mechanical device or mouth-to-mouth resuscitation.

***** VIII. PREVENTIVE MEASURES *****

SPILL OR LEAK PROCEDURES STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Keep spectators away. Floor may be slippery; use care to avoid falling. Dike and contain the spill with inert material (sand, earth, fuller's earth, etc.) and if appropriate, transfer the liquid and solid diking material to separate containers for recovery or disposal. Remove contaminated clothing promptly and wash affected skin areas with soap and water. Wash clothing before reuse. Keep spill out of all sewers and open bodies of water.

WASTE DISPOSAL METHOD: Dispose of all excess material, packaging and other waste in accordance with federal, state and local regulations.

SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION and VENTILATION:

No special requirements under ordinary conditions of use and with adequate ventilation. However, if mists are generated, and/or when ventilation is not adequate, wear approved respirator.

No special requirements under ordinary conditions of use and with adequate ventilation.

PROTECTIVE GLOVES (specify type): EYE PROTECTION (specify type)

Impervious gloves; i.e., rubber Chemical splash goggles

SKIN PROTECTION: Impervious gloves; i.e., rubber

SPECIAL PRECAUTIONS: PRECAUTIONS TO BE TAKEN IN HANDLING OR STORAGE:

Store inside in a cool (below 100°F or 37.5°C), dry place.

OTHER PRECAUTIONS: Do not take internally. Avoid prolonged contact with skin; contaminated clothing should be removed immediately. Wash

clothing before reuse. Avoid misting when handling.

ISO 32 Hydraulic Fluid Page 2 of 2