



Material Safety Data Sheet

The Toro Company
8111 Lyndale Ave S
Bloomington, MN 55420

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Product Identification

Product Name:	Biodegradable Hydraulic Oil	Parts Number:
Product type:	Oil	100-7674
MSDS #		
Emergency Contact:	Chemtrec : 1-800-424-9300	
Contact Number:	1-952-888-8801	

Chemical Components

Chemical	CAS #	%	ACGIH TLV	OSHA PEL	Other
VEGETABLE OIL AND ADDITIVES					

Physical and Chemical Properties

Characteristics		Physical Properties		Hazards Description	Physical Dangers
Physical State	liquid	Vapor pressure	mmHg 20 C : NE	<p>This product is not formulated to contain ingredients which have exposure limits established by U.S. agencies. It is not hazardous to health as defined by the European Union Dangerous Substances/Preparations Directives. See Section 15 for a regulatory analysis of the ingredients.</p> <p>US OSHA HAZARD COMMUNICATION STANDARD: Product assessed in accordance with OSHA 29 CFR 1910.1200 and determined not to be hazardous.</p> <p>EFFECTS OF OVEREXPOSURE: Not irritating according to U.S. and EC guidelines.</p> <p>EMERGENCY RESPONSE DATA: Light Yellow Liquid.</p> <p>Note: Pressurized mists may form a flammable mixture.</p>	<p>STABILITY (THERMAL, LIGHT, ETC.): Stable.</p> <p>CONDITIONS TO AVOID: Extreme heat.</p> <p>INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers.</p> <p>HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide.</p> <p>HAZARDOUS POLYMERIZATION: Will not occur</p>
Color	Light Yellow	pH	NA		
Odor	Mild	Boiling point/range:	C (F) : NE		
		Melting point/range:	C(F): NA		
		Relative density	15/4 C: 0.92		
		Vapor density	NE		
		Evaporation rate	NE		
		Solubility in water	Negligible		
		VOC content:	< 2.00 (Wt. %); 0.153 lbs/gal		
		Flash Point	C(F): > 220(428) (ASTM D-92)		
		VISCOSITY AT 40 C,	cSt: 36.0		
		VISCOSITY AT 100 C,	cSt: 8.4		
		POUR POINT	C(F): -18(0)		
		FREEZING POINT C(F):	NE		
HMIS Rating					
Health:					
Flammability:					
Physical Hazard:					

		DOT ERG No. : NA	
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Health Hazards

Major Routes of Exposure:	Ingredients Considered Hazardous to Health	Potential Health Effects:
Inhalation		Inhalation.
Skin		Skin contact
Ingestion		Eye contact:.
		Ingestion:

First Aid Measures	Accidental Release Measures	Personal Protection
<p>EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.</p> <p>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.</p> <p>INHALATION: Not expected to be a problem.</p> <p>INGESTION: Not expected to be a problem when ingested. If uncomfortable seek medical assistance.</p>		<p>For fires in enclosed areas, fire fighters must use self-contained breathing apparatus</p> <p>VENTILATION: No special requirements under ordinary conditions of use and with adequate ventilation.</p> <p>RESPIRATORY PROTECTION: No special requirements under ordinary conditions of use and with adequate ventilation.</p> <p>EYE PROTECTION: Normal industrial eye protection practices should be employed.</p> <p>SKIN PROTECTION: No special equipment required. However, good personal hygiene practices should always be followed.</p> <p>EXPOSURE LIMITS: This product does not contain any components which have recognized exposure limits. However, a exposure limit of 5.00 mg/m3 is suggested for oil mist.</p>

Fire and Explosion Hazards

Extinguishing Media	Special Fire Fighting Procedures	Unusual Fire and Explosion Hazards
Carbon dioxide, foam, dry chemical and water fog.	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. Prevent runoff from fire control or dilution from entering	Pressurized mists may form a flammable mixture. Flash Point C(F): > 220(428) (ASTM D-92). Flammable limits - LEL: NA, UEL: NA. NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

	streams, sewers, or drinking water supply.	HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxid
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Handling and Storage

Accidental Release /Spill Measures to Take	Precautions for Storage	Handling
<p>NOTIFICATION PROCEDURES: Report spills as required to appropriate authorities. U.S. Regulations require immediate reporting of all oil spills that could reach any waterway, including wetlands and intermittent dry creeks. Report all oil spills to the National Response Center (U.S. Coast Guard) at (800)424-8802. In case of accident or road spill, notify CHEMTREC at (800)424-9300. Note: This product does NOT contain any hazardous substances reportable under CERCLA.</p> <p>PROCEDURES IF MATERIAL IS RELEASED OR SPILLED: Small spills can be absorbed with fire retardant treated sawdust, diatomaceous earth, etc. Contain and remove larger spills for salvage or disposal.</p> <p>ENVIRONMENTAL PRECAUTIONS: Prevent spills from entering storm sewers or drains and contact with soil.</p>	<p>Store above 32F.</p> <p>Precautionary Label Text: CONTAINS BIODEGRADABLE NON-TOXIC HYDRAULIC OIL THIS PRODUCT WILL BE NON-TOXIC AND IS READILY BIODEGRADABLE UNDER NORMAL CONDITIONS WHEN EXPOSED TO AIR. For use in applications where incidental leakage to the environment may occur. Although this product contains vegetable oil, it is not suitable for contact with food. For industrial use only. Empty container may contain product residue, including flammable or explosive vapors. Do not cut, puncture, or weld on or near container. All label warnings and precautions must be observed until container has been thoroughly cleaned or destroyed. Refer to product Material Safety Data Bulletin for further safety and health information.</p>	<p>No special precautions are necessary beyond normal good hygiene practices.</p>

Disposal/Transportation

Disposal Method	Transportation
<p>WASTE DISPOSAL: EVEN THOUGH THIS PRODUCT IS READILY BIODEGRADABLE, IT MUST NOT BE INDISCRIMINATELY DISCARDED INTO THE ENVIRONMENT.</p> <p>This product is suitable for burning in an enclosed, controlled burner for fuel value and for recycling at an approved facility. In addition, it can be disposed of at an approved waste disposal facility. Land farming and processing through sewage treatment facilities may be available disposal options but necessary approvals must first be obtained from appropriate regulatory authorities. Specific characteristics of the waste at the time of disposal may affect the availability of the above options. RCRA INFORMATION: This non-petroleum-based product is not subject to RCRA used oil requirements. Further, it should not be a RCRA hazardous waste unless it has been excessively contaminated with RCRA hazardous materials.</p>	<p>USA DOT: NOT REGULATED BY USA DOT. RID/ADR: NOT REGULATED BY RID/ADR. IMO: NOT REGULATED BY IMO. IATA: NOT REGULATED BY IATA.</p>

Regulations

Governmental Inventory Status: All components comply with TSCA, EINECS/ELINCS, AICS, and DSL.

EU Labeling: EU labeling not required.

U.S. Superfund Amendments and Reauthorization Act (SARA) Title III:

This product contains no "EXTREMELY HAZARDOUS SUBSTANCES".

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

This product contains no chemicals subject to the supplier notification requirements of SARA (313) toxic release program.

THIS PRODUCT HAS BEEN AUTHORIZED BY USDA FOR USE UNDER THE FOLLOWING

CATEGORY: This product is acceptable as a lubricant where there is no possibility of food contact (complies with earlier USDA guidelines for H-2 lubricant use).

Toxicology Information

---ACUTE TOXICOLOGY---

ORAL TOXICITY (RATS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

DERMAL TOXICITY (RABBITS): Practically non-toxic (LD50: greater than 2000 mg/kg). ---Based on testing of similar products and/or the components.

INHALATION TOXICITY (RATS): Practically non-toxic (LC50: greater than 5 mg/l). ---Based on testing of similar products and/or the components.

EYE IRRITATION (RABBITS): Practically non-irritating. (Draize score: 0 or greater but 6 or less). ---Based on testing of similar products and/or the components.

SKIN IRRITATION (RABBITS): Practically non-irritating. (Primary Irritation Index: greater than 0.5 but less than 3). ---Based on testing of similar products and/or the components.

OTHER ACUTE TOXICITY DATA: ***DOT skin corrosivity (4 hours): Negative ***

---SENSITIZATION (SUMMARY)---

The vegetable oil used in this product is not a contact sensitizer via the Buehler guinea pig sensitization test.

---OTHER TOXICOLOGY DATA---

This product contains vegetable oil. Under normal conditions of use, no significant health hazards are expected. Although this product is formulated with vegetable oil, it is not approved for either direct or indirect food contact.

Ecological Information

ENVIRONMENTAL FATE AND EFFECTS:

ECOTOXICITY:

Acute LC/EC50: Juvenile Rainbow Trout: Virtually non-toxic

---Based on testing of similar products (EC50: >5000 ppm).

MOBILITY: Not established.

PERSISTENCE AND DEGRADABILITY: This product meets OECD ready biodegradability criteria. Small spills of unused product on the ground will be readily biodegraded by naturally occurring soil

organisms when exposed to air.
BIOACCUMULATIVE POTENTIAL: Not established.