



TRX TURBINE OILS

MATERIAL SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard (29CFR 1910.1200)

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SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME	TRX TURBINE OILS	PROPER SHIPPING NAME	OIL N.O.S.
PRODUCT NUMBER	1251	DATE PREPARED	06/01/2003
PRODUCT DESCRIPTION	Premium Turbine Oils	PREPARED BY	WARREN SQUYRES
Information Phone	(800) 334-7071	24-Hour Emergency Phone No.	(800) 255-3924

NFPA - HMIS CODES

Health	1	Flammability	1	Corrosive	0	Reactivity	0	Personal Protection	B
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SECTION II - MATERIAL IDENTIFICATION AND INFORMATION

Description	CAS Number	SARA III LIST	OSHA PEL (ppm)	ACGIH TLV (ppm)	CARCINOGEN	Wt %
May contain one or more of the following	647-54-7	NO	5mg/m3 (Oil Mist)	5mg/m3 (Oil Mist)	NO	--
Lubricating Base Stocks	847-42-70-7	NO			NO	--
	647-42-05-0	NO			NO	--
	647-42-57-0	NO			NO	--

Please note that the chemical identity of some or all of the above hazardous ingredients is confidential information and may be withheld as permitted by 29CFR 1910.1200 and various State Right to Know Laws.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Initial Boiling Point, °F	N/E	Evaporation Rate (n-Bu-Ac=1.0)	Negligible
Vapor Pressure for Product	Negligible at Ambient	Melting Point, °F	N/A
Vapor Density for Product (Air = 1.0)	Heavier than Air	Molecular Weight, Avg.	N/E
API Specific Gravity (H2O=1 @ 60°F)	31.8	Viscosity, Typical (cp)	N/E
VOC (Grams/Liter @ 25°C)	N/E	Appearance and Color	Dark Red Liquid
Volatiles, % by Volume @ 100°C	Negligible	Odor	Petroleum Oil
Total VOC %	N/E	Water Solubility (Wt %)	Negligible

The above data are appropriate or typical values and should not be used for precise design purposes.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (ASTM D92) C.O.C.	375°F (Min.)
Auto Ignition Temperatures	N/E
Flammability Limits in Air	
Lower Explosive Limit Estimated	N/E
Upper Explosive Limit Estimated	N/E
Extinguishing Media	Use Water Fog, Foam, Dry Chemical or CO2.
Unusual Fire and Explosion Hazards	Do not use a direct stream of water. Product will float and can be ignited on surface of water.
Special Fire Fighting Procedures	Treat as oil fire. Use water spray to cool containers exposed to heat and flame.



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SECTION V - HEALTH HAZARD DATA AND EMERGENCY FIRST AID PROCEDURES

ENTRY ROUTES	ADVERSE/CHRONIC EFFECTS	FIRST AID PROCEDURES
EYES	May cause eye irritation. May cause stinging, tearing and redness. Based on data from components or similar materials.	Immediately flush eyes with large amounts of water for at least 15 minutes while lifting upper and lower lids open. Get prompt medical attention if irritation occurs.
INGESTION	Product has a low degree of acute oral, but minute amounts aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possible death. Based on data from components or similar materials.	DO NOT INDUCE VOMITING. Keep warm and quiet. Get prompt medical attention.
INHALATION	Product has a low degree of toxicity, breathing high concentrations of vapors or mists may cause irritation of the nose and throat. Based on data from components or similar materials.	If adverse effects are observed, remove to fresh air. If symptoms persist, seek medical attention. If victim is not breathing, immediately begin artificial respiration. Seek immediate medical attention.
SKIN	Prolonged or repeated contact may cause skin irritation. Symptoms may include dryness, redness, edema, defatting. Based on data from components or similar materials.	In case of skin contact, remove contaminated clothing. Wash exposed area with soap and water. Get medical attention if irritation persists or develops. Launder or dry-clean clothing before reuse.
VARIABLE AMONG INDIVIDUALS	Health studies have shown that many petroleum hydrocarbons and synthetic lubricants pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.	

SECTION VI - REACTIVITY DATA

STABILITY	Stable under normal conditions of storage and handling.
HAZARDOUS POLYMERIZATION	Will not occur - No conditions known.
INCOMPATIBILITY	Strong Oxidizing Agents and acids.
HAZARDOUS DECOMPOSITION	Fumes, smoke, oxides of carbon, sulfur, H ₂ S, oxides of phosphorus and sulfur.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED - Remove all sources of ignition. Recover free product. Cover with suitable absorbent material. Minimize skin contact. Keep product out of sewers and watercourses by diking or impounding. Advise authorities if product has entered or may enter sewers, watercourses, or extensive land areas. Assure conformity with governmental regulations.	
WASTE DISPOSAL	Disposal of in compliance with Federal, State, and Local laws.
HANDLING & STORAGE	Use product with caution around heat, sparks, pilot lights, static electricity and open flame. Product can burn upon heating to temperatures at or above flash point. Keep containers closed when not in use. Do not store near heat, sparks, open flame or strong oxidants. Spills may cause slippery floors. Proper footwear required. Remove contaminated clothing and launder before reuse. Discard contaminated leather gloves and shoes.
OTHER PRECAUTIONS	KEEP OUT OF REACH OF CHILDREN. Read and follow label directions. For Industrial/Institutional use only.
"EMPTY" CONTAINERS	"EMPTY" containers retain residue (liquid and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION	NIOSH/MSHA Approved respirators may be worn to prevent overexposure by inhalation if needed.
VENTILATION	Use local exhaust to capture vapor, mists or fumes, if necessary. Provide ventilation sufficient to prevent exceeding recommended exposure limit or build-up of explosive concentrations, or vapors in air. No smoking, flame or other ignition sources.
PROTECTIVE GLOVES	Use chemical resistant gloves to avoid prolonged or repeated skin contact.
EYE PROTECTION	Use chemical proof splash goggles or face shield when eye contact may occur.
OTHER PROTECTIVE CLOTHING/EQUIPMENT	Use chemical resistant apron or other impervious clothing, if needed, to avoid contamination of regular clothing. Long sleeves should be worn.
WORK HYGIENIC PRACTICES	Minimize breathing vapor, mists or fumes. Avoid prolonged or repeated contact with skin. Employees must practice good personal hygiene; washing exposed areas of skin several times daily and before eating, drinking or smoking. Launder contaminated clothing before reuse. Remove contaminated shoes and thoroughly clean before reuse; discard if oil-soaked.

SECTION IX - TRANSPORTATION DATA

PROPER SHIPPING NAME	OIL N.O.S.
DOT ID NUMBER	N/A
DOT HAZARD CLASS	NOT REGULATED

The information and recommendations set forth herein are presented in good faith and believed to be correct and reliable. RAMCO SPECIALTY PRODUCTS, Inc. makes no representation as to the completeness or accuracy thereof and supplies information upon the condition that the persons receiving same will make their own determination as to its suitability for their purpose prior to use.