



TRX-90 GEAR OIL SAE 140

MATERIAL SAFETY DATA SHEET

Complies with OSHA Hazard Communication Standard (29CFR 1910.1200)

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SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME	TRX-90 GEAR OIL SAE 140	PROPER SHIPPING NAME	OIL N.O.S.
PRODUCT NUMBER	1028	DATE PREPARED	06/01/2003
PRODUCT DESCRIPTION	Gear Oil	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	C
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SECTION II - MATERIAL IDENTIFICATION AND INFORMATION

Description	CAS Number	SARA III LIST CARCINOGEN	OSHA PEL/TWA	OSHA PEL/CEILING	ACGIH TLV/TWA	ACGIH TLV/STEL
May contain one or more of the following			5mg/m3	NONE	5mg/m3	10mg/m3
Lubricating Base Stocks	647-54-7	NO				
	847-42-70-7	NO				
	647-42-05-0	NO				
	647-42-57-0	NO				
	647-42-58-1	NO				
Sulfohydrocarbon (Eye Irritant)	N/E	NO				
Proprietary Additives	Mixture	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.

CALIFORNIA PROP 65: This material may contain chemicals known to the State of California to cause cancer, birth defects, and/or reproductive harm. (NOTE: State and Local regulatory requirements may be more restrictive or otherwise different from Federal regulations. Consult State and Local Regulations regarding other regulatory requirements.)

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Initial Boiling Point, °F	N/E	Evaporation Rate (n-Bu-Ac=1.0)	N/E
Vapor Pressure for Product	N/E	Melting Point, °F	N/A
Vapor Density for Product (Air = 1.0)	N/E	Density of Product (Typical)	7.53 Lbs./Gal.
API Specific Gravity @ 15.6°C (Typical)	0.905	Viscosity, Typical (cp)	N/E
VOC (Pounds per Gallon)	N/E	Appearance and Color	Dark Red Liquid
Volatiles, % by Volume	N/E	Odor	Petroleum Oil
% Solid	NIL	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.	430°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	Carbon Dioxide, Dry Chemical, Foam or Water Fog.
Unusual Fire and Explosion Hazards	Slightly combustible when heated above flash point. Will release flammable vapors which can burn in open or be explosive in confined spaces if exposed to ignition. Move container from fire area if you can do so without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. Stay away from ends of tanks and drums. Heated containers may rupture, explode or be thrown into the air.
Special Fire Fighting Procedures	Recommend wearing positive pressure self-contained breathing apparatus. Do not enter confined fire-space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots). Toxic fumes, gases or vapors may evolve on burning. Vapors may be heavier than air and may travel along the ground to a distant ignition source and flash back. Withdraw immediately in case of rising sound from venting safety device or discoloration of tank due to fire. Keep storage containers cool with water spray.



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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 mild eye irritation. Direct contact with the liquid or exposure to vapors or mists 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 toxicity. Ingestion of excessive amounts may cause irritation of the digestive tract, nausea and vomiting. Aspiration 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, because material can enter lungs and cause severe damage. Drink 4 to 8 ounces of water and seek immediate medical attention. If vomiting occurs, or if comatose or lethargic, place on the left side with the head down. Seek immediate 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 breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. Seek immediate medical attention.
SKIN	This material may cause skin irritation and/or allergic reaction. Prolonged and repeated contact may lead to various skin disorders such as dermatitis, or acne, or folliculitis. Persons with pre-existing skin disorders may be more susceptible to the effects of this material. Based on data from components or similar materials.	In case of skin contact, remove any contaminated clothing and wipe excess off. Wash skin with soap and water or a waterless hand cleaner followed by soap and water. Get medical attention if irritation persists or develops. Launder or dry-clean clothing before reuse and discard shoes and other leather articles saturated with the material.
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. Avoid heating to decomposition.
HAZARDOUS POLYMERIZATION	Will not occur - No conditions known.
INCOMPATIBILITY	Strong Oxidizing Agents
HAZARDOUS DECOMPOSITION	Thermal decomposition products are highly dependent on the combustion conditions. A complex mixture of airborne solid, liquid, particulates, various hydrocarbons, and gases will evolve when this material undergoes combustion or pyrolysis. The following may be formed: fumes, smoke, hydrogen sulfide, oxides of carbon, and other unidentified organic compounds.

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	Dispose of in compliance with Federal, State, and Local laws. Material, if discarded, is expected to be hazardous waste under RCRA due to toxicity.
HANDLING & STORAGE	Store in a cool, dry location. Keep away from potential sources of ignition. Keep away from incompatible materials. Open container in a well-ventilated area. Avoid generating mists when handling. Avoid breathing vapors or prolonged or repeated skin contact. Wash thoroughly after handling. Remove any contaminated clothing and launder before reuse.
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.