SUPREX HEAVY DUTY ENGINE OIL

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Section I-product information

PRODUCT NAME: Suprex Heavy Duty Engine Oils SAE 10W, 20W20, 30, 40, 50, 15W40, 10W30 LATEST REVISION DATE: March 18, 2004 GENERAL OR GENERIC ID: Petroleum Based Lubricating Oil CAS NUMBER: Mixture

SECTION II—COMPONENTS/INGREDIENTS

Components	%	Exposure Limits-Ref
1) Hydrotreated heavy paraffinic	70.0-88.0	5mg/m3 ACGIH TLV,
Petroleum distillates (group II Basestock)		OSHA Pel for mineral oil mists
CAS No: 64742-54-7		
2) Performance additive package	12.0-15.0	None Established
Containing calcium sulfonate		
and zinc dialkyldithiophosphate		
(see section XIII)		
CAS No: Mixture		
3) Viscosity Improver containing	0.0-10.0	None Established
an Olefin copolymer in mineral oil		
CAS No: Mixture		
4)Other components not determined	trace	Not Applicable
To be hazardous or present at		
less than 1.0% (0.1% for carcinogens)		
CAS No. Mixture		

Section III-Product Health Hazard Information

ROUTE OF EXPOSURE:

SKIN CONTACT:

EFFECTS OF OVEREXPOSURE:

Estimated rabbit dermal LD50=>5 gm/kg. Slightly to moderately irritating. Repeated or prolonged contact may cause defatting, oil acne, redness, itching, inflammation, cracking and possible secondary infection. May cause allergic reaction in some individuals. Contact with heated material may cause thermal burns. High pressure skin injections are serious medical emergencies. Also see section XIII– GENERAL COMMENTS

EYE CONTACT:

EFFECTS OF OVEREXPOSURE: Slightly to moderately irritating, may cause redness and tearing. Contact with heated material may cause thermal burns.

INGESTION:

EFFECTS OF OVEREXPOSURE: Practically non-toxic. Estimated rat oral LD50=>5 gm/kg. Aspiration into lungs may cause pneumonitis. May cause gastrointestinal disturbances. Symptoms Include irritation, nausea, vomiting & diarrhea.

INHALATION:

EFFECTS OF OVEREXPOSURE: May cause respiratory tract irritation. Exposure to high concentrates Of mist oil may lead to pneumonia.

Section IV—Emergency First Aid

INGESTION: Do not induce vomiting because of danger of aspirating liquid into lungs. If spontaneous vomiting occurs, monitor for breathing difficulty. Get medical attention immediately.

SKIN CONTACT: Remove contaminated clothing immediately. Wash exposed area thoroughly with Soap and water. Get medical attention if irritation persists. Thermal burns require immediate medical attention. High pressure skin injections are serious medical emergencies. Get immediate medical attention. Launder contaminated clothing before re-use.

EYE CONTACT: Flush immediately with large amounts of water, lifting upper and lower lids

occasion ally. Get medical attention if irritation persists. Thermal burns require immediate medical attention. INHATLATION: Remove the affected person to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet and get medical attention.

Section V-Notes to Physician

Aspiration of medium viscosity petroleum hydrocarbons may cause severe pneumonitis (oil pneumonia). Vomiting should not be induced. In general, emesis induction is unnecessary in high viscosity, low volatility products, i.e., most oils and greases. If vomiting is induced, use of an endotracheal tube should be considered.

Section VI-Physical data

Boiling Point, Deg C (Deg F): Not determined
Melting Point, Deg C (Deg F) : Not Determined
Vapor Pressure, MM HG: <0.1 @ 100 Deg F
Vapor Density (air=1) : Heavier
Specific Gravity : 0.89 @ 60 Deg F
Solubility in water, %: Negligible
% Volatility by volume : 0 @ 100 deg F
Evaporation rate (water = 1) : Very Slow
Viscosity, cSt: 6.3—16.5 @ 100 deg C
Appearance/Odor: Amber Color with characteristic petroleum oil odor.
Note: The above information is not intended for reference as product specifications.

Section vii-fire and explosion hazards

FLASH POINT, Deg C (Deg F) : 221 (430) FLAMMABILITY LIMITS, % VOLUME IN AIR : no Data EXTINGUISHING MEDIA: Water Spray, Dry Chemical, Foam, Carbon Dioxide FIRE FIGHTING PROCEDURES AND PRECAUTIONS: Water or foam may cause frothing which can be violent and may endanger the firefighter, especially if sprayed into containers of hot , burning liquid. Wear MSHA/NIOSH approved self contained breathing apparatus with a full face mask operated in pressure demand or other positive pressure mode. Use full protective equipment. Use water spray to cool fire-exposed containers, structures and to protect personnel. Use water to flush spills away from sources of ignition. Do not flush down public sewers. UNUSUAL FIRE AND EXPLOSION HAZARDS: Combustible at high temperatures. Irritating or toxic substances may be emitted upon thermal decomposition. Never use welding or cutting torch on or near drum (even empty) because product (even residue) can ignite explosively.

NFPA CODES: Health: 1 Flammability: 1 Reactivity: 0

Section viii-reactivity data

STABILITY/INCOMPATABILITY: Stable under normal conditions of use. Avoid contact with strong oxidizers. HAZARDOUS REACTIONS/DECOMPOSITION PRODUCTS: Combustion may produce CO,CO2 and reactive hydrocarbons.

Section ix-employee protection

SKIN PROTECTION: Wear impervious gloves and protective clothing to prevent skin contact. EYE PROTECTION: Wear safety glasses or chemical goggles to prevent eye contact. Have eye baths readily available where eye contact can occur. Do not wear contact lenses when working with this substance. RESPIRATORY PROTECTION: Use NIOSH or MSHA approved equipment when airborne exposure limits are exceeded. Ventilation may be used to control or reduce airborne concentrations.

Section x-environmental protection

SPILL OR LEAK PROCEDURES: Take immediate steps to stop and contain spill.

SMALL SPILLS: Take up with sand or other non-combustible absorbent material or other sorbent known to be compatible, then flush area with water.

LARGE SPILLS: Dike far ahead of spill. Pump Liquid to salvage tank. Remaining liquid may be taken up with sand, earth or other compatible absorbent.

NOTE: Keep all unnecessary or unprotected personnel away. Eliminate all ignition sources. Prevent run-off to sewers, streams, or other bodies of water. A release causing visible sheen on surface water must be reported immediately to the National Response Center (800-424-8802) as required by U.S. Federal Law. Failure to report may result in substantial civil and criminal penalties.

WASTE DISPOSAL: This substance when discarded or disposed of, is not specifically listed as a hazardous waste in Federal regulations; however, it could be hazardous if it is considered toxic, corrosive, ignitable or reactive according to Federal definition (40CFR261) Additionally, it could also be designated as a hazardous waste, if it is mixed or comes in contact with a hazardous waste. The transportation, storage, treatment and disposal of this waste material must be conducted in compliance with all applicable Federal, State and local regulations. SARA TITLE III INFORMATION:

SECTION 313 STATUS: Zinc Compounds: 1-3% (0.12% Zn)

LISTED BELOW ARE THE HAZARD CATEGORIESFOR THE SUPERFUND AMENDMENTS AND EEAU-THORIZATION ACT (SARA) SESTION 311/312 (40 CFR 370):

Immediate Hazard:

Delayed Hazard : X

Fire Hazard :

Pressure Hazard :

Reactivity Hazard:

ADDITIONAL INFORMATION: There may be specific regulations at the local, regional or state level that pertain to this material.

Section xi-special precaution/supplemental information

HANDLING/STORAGE: Avoid extremes of temperature in storage. Store tightly closed containers in cool, dry, well ventilated areas away from heat, sources of ignition and incompatibles. Do not store in unlabeled containers. Do not eat, drink or smoke in areas of use. Empty containers may contain flammable/combustible or explosive residue or vapors. Do not cut, grind, drill, weld or re-use container unless adequate precautions are taken.

Section xii-transportation requirements

D.O.T Hazard Class (49 CFR 172.101): Not Applicable
D.O.T Proper Shipping name (49 CFR 172-101) Not Applicable
D.O.T Labels Required: Not Applicable
D.O.T Placards Required: Not Applicable
BILL OF LADING DESCRIPTION: Lubricating oil (motor), Petroleum Lubricating Oil (rail)
UN/NA CODE: Not Applicable

Section xiii-general comments

The specific chemical identities of some components have been withheld as a trade secret. This material does contain zinc dialkyldithiophosphate which when applied to the skin of male rabbits over a period of time caused severe irritation and adverse testicular effects.

The American petroleum institute has determined that paraffinic lube oil stocks are "not more than slightly carcinogenic" to experimental animals. However, IARC has determined that "there is no evidence that severely solvent refined oils are carcinogenic to experimental animals".

EFFECTIVE DATE: March 25th, 2004 COMPLETED BY: E. A. Cooper APPROVED BY: C. Stout

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