

MATERIAL SAFETY DATA SHEET

1. **PRODUCT NAME:** Transformer Oil, Type II
CHEMICAL NAME: Severely Hydro treated Heavy Naphthenic Distillate
CAS NUMBER: 64742-53-6
CHEMICAL FAMILY: Petroleum Hydrocarbon Oil Effective Date: 1/1/2007

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME: Severely Hydro treated Light Naphthenic Petroleum Oil, CAS # 64742-53-6
EXPOSURE LIMITS: Oil Mist.

OSHA PEL MIST 5MG/M3 8 HRS
ACGIH TLV MIST 5 MG/M3 8 HRS

CONCENTRATION: 99.7 % BY VOL.

INGREDIENT NAME: Hindered phenol type inhibitor, CAS # 128-39-2

CONCENTRATION: 0.3 % BY VOL.

3. HAZARDS IDENTIFICATION

Emergency Overview: Not expected to cause a severe emergency hazard.

POTENTIAL HEALTH EFFECTS:

PRIMARY ROUTE(S) OF ENTRY:

EYES: Tests on similar materials suggest that no eye effect be expected.

SKIN: Tests on similar materials indicate that no significant adverse health effects are expected to occur upon short term exposure.

INGESTION: Tests on similar materials indicate no significant adverse effects expected. Practically non-toxic.

INHALATION: Tests on similar material indicate no adverse effects are expected.

CHRONIC (CANCER INFORMATION): Prolonged and/or repeated contact with this material may produce skin irritation and inflammation.

Carcinogen listed by: National Toxicology Program (NO)
I.A.R.C. (NO)
OSHA (NO)
ACGIH (NO)

This product does not require a cancer hazard warning in accordance with the OSHA Hazard Communication Standard.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Personnel with pre-existing skin disorders should avoid contact with this product.

4. FIRST AID MEASURES

EYES

Flush eyes immediately with water for at least 15 minutes or until irritation subside. If irritation persists, consult a physician.

SKIN

Wash thoroughly with soap and water. Remove contaminated clothing and wash before reuse. If irritation or rash develops, obtain medical assistance. Immediately remove soaked clothing.

INGESTION

Product is practically non-toxic. Do not induce vomiting. Obtain emergency medical attention.

INHALATION

Not likely to occur except a mist. Remove patient to fresh air and consult a physician. If breathing is difficult, give oxygen. If not breathing give artificial respiration.

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: >293 F >145 C COC ASTM D92
AUTOIGNITION: >650 F >343 C
FLAMMABILITY CLASS: IIIB
LOWER EXPLOSIVE LIMIT (%): Not determined.
UPPER EXPLOSIVE LIMIT (%): Not determined.

FIRE AND EXPLOSION HAZARDS

Slightly combustible. OSHA/NFPA Class IIIB Combustible Liquid. If heated above its Flash Point will release flammable vapors, which can burn in the open or be explosive in confined Spaces if exposed to ignition source. Mists or sprays may be flammable below oil's normal Flash Point. Keep away from extreme heat or open flame.

EXTINGUISHING MEDIA

Dry Chemical, carbon dioxide, water fog and foam. NOTE: Water, fog and foam may cause Frothing and spattering.

FIRE FIGHTING INSTRUCTIONS

Use water to cool containers exposed to flames. Do not enter enclosed or a confined work space Without proper protective equipment. Fire fighting personnel should wear respiratory protection (Positive pressure if available).

Products of combustion include fumes, smoke and carbon monoxide.

6. ACCIDENTAL RELEASE MEASURES

Shut off ignition source. Contain spill and keep from entering waterways or sewers. Use personal protective equipment. Advise EPA; state agency if required. Absorb on inert material. Shovel, sweep or vacuum spill.

7. HANDLING AND STORAGE

PRECAUTIONS

Keep away from flames, sparks or hot surfaces. Never use a torch to cut or weld on or near container. Empty oil containers can contain explosive vapors. NFPA Class IIIB storage. Wash thoroughly after handling.

WORK/HYGIENIC PRACTICES

Wash hands with soap and water before eating, drinking, smoking or use of toilet facilities. Do not use gasoline, solvents, kerosene, or harsh abrasive skin cleaners for washing exposed skin areas. Take a shower after work if general contact occurs. Remove oil-soaked clothing and launder before reuse. Launder or discard contaminated shoes and leather gloves.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEER CONTROLS: Use adequate ventilation to keep oil mists of this material below applicable standards(s). See Section on occupational exposure limits.

EYE/FACE PROTECTION: Safety glasses or splash goggles. Have suitable eye wash water available.

SKIN PROTECTION: Avoid prolonged and/or repeated skin contact. If prolonged contact cannot be

avoided, wear protective impervious gloves and clothing. Acceptable materials for gloves are polyvinyl chloride; neoprene; nitrile; polyvinyl alcohol; viton.

RESPIRATORY PROTECTION: Normally not required if adequate ventilation. If occupational exposure limits are exceeded wear NIOSH/MSHA approved apparatus.

OTHER/GENERAL PROTECTION: If there is a likelihood of splashing, an oil resistant clothing should be worn. Never wear oil soaked clothing. Launder or dry clean before wearing. Discard oil soaked shoes. Affix warning labels on containers in accordance with 29 CFR 1910.1200 (Hazard Communication Standard).

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear, pale straw to water white, colored, viscous liquid.
ODOR: Light bland petroleum.
ODOR THRESHOLD: N.D.

BASIC PHYSICAL PROPERTIES

PHYSICAL STATE: Liquid
BOILING POINT: IBP >350 F IBP >176 C
MELTING POINT: N/A F N/A C
% VOLITILE: NIL LVP-VOC
VAPOR PRESSURE: <0.04 MM hG@20 C
VAPOR DENSITY (AIR=1): >5
SPECIFIC GRAVITY: 0.91 Water = 1
MOLECULAR WEIGHT: 265.00
PACKING DENSITY: N/A
SOLUBILITY (H2O): negligible in water
PERCENT VOLATILE: nil
EVAPORATION RATE: 1000X slower than ethyl ether
PH: Essentially Neutral
VISCOSITY: 63 SUS @ 100 F

10. STABILITY AND REACTIVITY

STABILITY: Stable
CONDITIONS TO AVOID (STABILITY): Sources of ignition
INCOMPATIBLE MATERIALS: Strong oxidizers
HAZARDOUS DECOMPOSITION PRODUCTS: Combustion may produce carbon monoxide and other asphyxiant.
HAZARDOUS POLYMERIZATION: Will not occur

11. TOXICOLOGICAL INFORMATION

ACUTE STUDIES: Tests on similar materials show a low order of acute oral and dermal toxicity.

EYE EFFECTS: Minimal irritation on contact.

SKIN EFFECTS: Practically non-toxic if absorbed. May cause mild irritation with prolonged and repeated contact.

ACUTE ORAL EFFECTS: Tests on similar materials indicate low order of acute oral toxicity.

ACUTE INHALATION EFFECTS: Low acute toxicity expected on inhalation.

This product is severely hydro treated. Severely hydro treated naphthenic petroleum oil has not been found to be carcinogenic or a potential carcinogen. This product is not listed as carcinogenic or a potential carcinogen by the National Toxicology Program, by the I.A.R.C. monographs or by OSHA.

12. ECOLOGICAL INFORMATION

NO DATA GIVEN

13. DISPOSAL CONSIDERATIONS

Follow federal, state and local regulations. Not a RCRA hazardous waste if uncontaminated. If "used", RCRA criteria must be determined. Do not flush to drain/storm sewer. Contract to authorized disposal service, if permitted incineration may be practical. Recommend recycling.

RCRA INFORMATION: Not a RCRA hazardous waste if uncontaminated.

14. TRANSPORTATION INFORMATION

PROPER SHIPPING NAME: Not regulated by DOT

HAZARD CLASS: Not applicable

DOT IDENTIFICATION NUMBER: N/A

DOT SHIPPING LABEL: Not regulated by DOT.

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATORY INFORMATION:

SARA 302 Threshold Planning Quantity: Not applicable.

SARA 304 Reportable Quantity: Not applicable.

SARA 311 Categories: Immediate (acute) Health Effects --N

Delayed (chronic) Health Effects --N

Fire Hazard --N

Sudden Release of Pressure Hazard-N

Reactivity Hazard --N

EPA/TSCA Inventory: The components of this product are listed on the EPA/TSCA inventory of chemicals.

EPA Hazard Classification Code: Not applicable

Comprehensive Environmental Response, Compensation and liability Act (CERCLA):

No chemicals in this product are subject to the reporting requirements of CERCLA.

SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION

No chemical in this product exceed the De Minimus reporting level established by SARA Title III, Section 313 and 40 CFR 372

WHMIS Classification: Not controlled

16. OTHER INFORMATION

NFPA HAZARD RATING - HEALTH 0 Negligible

- FIRE 1 Slight

- REACTIVITY 0 Negligible

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