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## SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY INFORMATION

Product Name(s): TS-3487 Transformer Oil, Type II  
 Product Code(s): Not available.  
 Uses: A petroleum-based lubricant.  
 Company: Amalie Oil Company  
 Address: 1601 McCloskey Blvd; Tampa FL 33605; USA  
 Telephone Number: (813) 248-1988 Fax Number: (813) 248-1488  
 Emergency Telephone Number: For Hazardous Materials [or Dangerous Goods] Incident (24 hours/day)  
 ChemTel Inc. (800) 255-3924; +1 (813) 248-0585  
 Date Issued: November 22, 2021 Date Revised: November 22, 2021

This SDS complies with the OSHA Hazard Communication Standard 29CFR1910.1200 as revised in May 2012 (GHS). It may not meet requirements in other countries.

### SECTION 2 HAZARDS IDENTIFICATION

GHS Signal Word: **DANGER**



GHS Classification: Aspiration Hazard (Category 1)  
Aquatic Acute Toxicity (Category 3)  
Aquatic Chronic Toxicity (Category 3)

GHS Hazard Statements: May be fatal if swallowed and enters airways  
Harmful to aquatic life with long lasting effects

GHS Precautionary Statements: Prevention:  
Avoid release to the environment.

Response:  
If swallowed: Immediately call a poison center/doctor/hospital.

Do NOT induce vomiting.

Collect spillage.

Storage:  
Store locked up.

Disposal:  
Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards Not Otherwise Classified: None.

GHS Assessment: Approximately < 10% of this mixture consists of ingredient(s) of unknown acute toxicity.  
Approximately < 10% of the mixture consists of ingredient(s) of unknown hazards to the Aquatic environment

**SECTION 3 COMPOSITION / INGREDIENTS**

Component	CAS Number	EC Number	Concentration
Distillates (petroleum), hydrotreated light naphthenic	64742-53-6	265-156-6	≥ 90.0%
	<i>Classification: Carc. 1B: H350 (*) Carc. 1B; H350: C ≥ 3.0 % DMSO Repr. 2; H361d: C ≥ 3.0 % DMSO Asp. Tox. 1; H304: Viscosity ≤ 20.5 mm<sup>2</sup>/s (40°C)</i>		
Di-tert-butylphenol, 2,6-	128-39-2	204-884-0	< 1.0%
	<i>Classification: Skin Irrit. 2: H315; Aquatic Acute 1: H400; Aquatic Chronic 1: H410</i>		

Note (\*): Components are highly refined and this hazard does not apply.

Other components are either non-hazardous or do not significantly contribute to the hazards of the product.

Trade Secret Claims: Specific chemical identity and/or exact percentage (concentration) of components has been withheld as a trade secret.

For the full text of the H-Statements mentioned in this Section, see Section 16.

**SECTION 4 FIRST AID MEASURES**

First Aid - Eyes:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention, if irritation develops.
First Aid - Skin:	In case of contact, flush skin with plenty of soap and water while removing contaminated clothing and shoes. Get medical attention immediately if irritation develops and/or persists. Wash contaminated clothing before reuse.
First Aid - Ingestion:	If swallowed and feel unwell, immediately call a physician or poison control center. DO NOT induce vomiting unless directed to do so by a physician or poison control center. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.
First Aid - Inhalation:	If respiratory symptoms or other symptoms of exposure develop, move victim away from source of exposure and into fresh air. If symptoms persist, seek immediate medical attention. If victim is not breathing, clear airway and immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.
Important Symptoms / Effects – Acute and Delayed:	Mild tissue inflammation, nausea, breathing difficulties, coughing.
Advice to Physician:	Treat symptomatically.

**SECTION 5 FIRE FIGHTING MEASURES**

Extinguishing Media:	Treat surrounding material. Water spray, dry chemical, carbon dioxide, or foam is recommended. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces.
Specific Hazards:	This product is not flammable, but will burn in a fire. This product may give rise to hazardous vapors in a fire. Vapors/fumes may be irritating, corrosive and/or toxic.
Protective equipment and procedures for fire-fighters.	Wear full protective clothing and self-contained breathing apparatus.
Additional Advice:	None

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Spill Procedures: Small spills: Wipe up spills with an absorbent towel/material and transfer into suitable containers for recovery or disposal. Finally flush area with water/soap or an appropriate solvent, as this product is not appreciably soluble in water alone.

Large spills: Contain spilled material if possible. Pump into suitable and properly labeled containers.

Personal Precautions: Wear suitable protective clothing and equipment.

Environmental Precautions: Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

**SECTION 7 HANDLING AND STORAGE**

Handling: Wear appropriate personal protection (See Section 8) when handling this material. The work area should be equipped with a safety shower and eye wash station. If exposed to the liquid, avoid contact with skin and eyes. Wash thoroughly after handling. Avoid breathing vapors, mists or sprays. Use in a well-ventilated area.

Storage: Keep container(s) tightly closed. Use and store this material at room temperature away from sources of ignition, heat, direct sunlight and hot metal surfaces. Keep away from any incompatible materials (see Section 10).

Additional Advice: Store in original container. Store as directed by the manufacturer.

**SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION**

Occupational Exposure Standards: Exposure limits are listed below, if they exist.

Distillates (petroleum), hydrotreated light naphthenic: (as petroleum distillates – naphtha)  
 NIOSH REL: 350 mg/m3 TWA.  
 NIOSH REL: 1800 mg/m3 STEL.  
 OSHA PEL: 500 ppm (2000 mg/m3).  
 (as oil mist)  
 NIOSH REL: 5 mg/m3 TWA.  
 NIOSH STEL: 10 mg/m3 TWA.  
 OSHA PEL: 5 mg/m3 TWA.

Di-tert-butylphenol, 2,6-: ACGIH TLV: 2 mg/m3 TWA.  
 OSHA PEL: 10 mg/m3 TWA.  
 NIOSH REL: 10 mg/m3 TWA.

Engineering Control Measures: Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.

Respiratory Protection: A NIOSH certified self-contained breathing apparatus or air purifying respirator with an organic cartridge may be used under conditions where airborne concentrations are expected to exceed exposure limits.

Hand Protection: The use of gloves impervious to the specific material handled is advised to prevent skin contact, possible irritation and skin damage (see glove manufacturer literature for information on permeability).

Eye Protection: Approved eye protection (safety glasses with side-shields or goggles) to

**SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION**

safeguard against potential eye contact, irritation, or injury is recommended. Depending on conditions of use, a face shield may be necessary.

Body Protection: Impervious clothing should be worn as needed to prevent skin contact.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Physical State:	Liquid
Color:	Clear to light yellow
Odor:	Characteristic, mild
Odor Threshold:	Not available.
pH:	Not available.
Melting Point/Range (°C/°F):	Not available.
Boiling Point/Range (°C/°F):	> 176.0°C / 348.8°F
Flash Point (PMCC) (°C/°F):	149.0°C / 300.2°F (open cup)
Evaporation Rate:	Not available.
Flammability / Explosivity Limits in Air (%):	Not available.
Vapor Pressure:	< 0.075 mmHg (20°C) (based on constituents)
Vapor Density (Air = 1):	> 5
Relative Density:	0.88 - 0.91
Solubility in Water:	Insoluble
Partition Coefficient:	Not available.
Autoignition Temperature (°C/°F):	> 250°C / 482°F (based on constituents)
Decomposition Temperature (°C/°F):	Not available.
Viscosity:	10.0 mm <sup>2</sup> /s (40°C)
Explosive Properties:	None.
Oxidizing Properties:	None.
Volatile Organic Content (VOC) (g/l):	845 - 900 g/l (as defined by 40CFR51.100)

**SECTION 10 STABILITY AND REACTIVITY**

Reactivity:	Product will not undergo additional reaction.
Stability:	Stable under normal storage conditions.
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Contact with incompatible materials, excessive heat.
Incompatibilities:	Strong oxidizing agents.
Hazardous Decomposition Products:	Oxides of carbon, aliphatic and aromatic compounds, toxic by-products.

**SECTION 11 TOXICOLOGICAL INFORMATION**

*If available, toxicity data for the product is given; otherwise component data is listed.*

Acute Toxicity: This product is not expected to be appreciably harmful.

<b>SECTION 11 TOXICOLOGICAL INFORMATION</b>
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	(Distillates (petroleum), hydrotreated light naphthenic) Oral LD50 (rat) > 5000 mg/kg (similar oil); Dermal LD50 (rat) > 5000 mg/kg (similar oil); Inhalation LC50 (rat) 2.18 mg/l (4 hr) (aerosol – similar oil) (Di-tert-butylphenol, 2,6-) Oral LD50 (rat) > 6000 mg/kg; Dermal LD50 (rat) > 2000 mg/kg
Skin Corrosion / Irritation:	The product may be slightly irritating to the skin. (Distillates (petroleum), hydrotreated light naphthenic) Slightly irritating to skin (rabbit – similar oil). (Di-tert-butylphenol, 2,6-) Non-irritating to skin (rabbit).
Serious Eye Damage / Irritation:	The product may be slightly irritating to the eyes. (Distillates (petroleum), hydrotreated light naphthenic) Slightly irritating to eye (rabbit – similar oil). (Di-tert-butylphenol, 2,6-) Non-irritating to eye (rabbit).
Respiratory or Skin Sensitization:	The product is not expected to be dermally sensitizing. (Distillates (petroleum), hydrotreated light naphthenic) Not dermally sensitizing (guinea pig – similar oil). (Di-tert-butylphenol, 2,6-) Generally not dermally sensitizing (human patch test).
Mutagenicity:	This product is not expected to be mutagenic. (Distillates (petroleum), hydrotreated light naphthenic) Not mutagenic (Ames test, in vitro mammalian chromosome aberration test, mammalian cell gene mutation assay and micronucleus assay – similar oils). (Di-tert-butylphenol, 2,6-) Not mutagenic (Ames test, mammalian cell gene mutation assay, in vitro mammalian chromosome aberration test, chromosome aberration assay and micronucleus assay).
Carcinogenicity:	This product is not expected to be carcinogenic. (Distillates (petroleum), hydrotreated light naphthenic) In a 78 week study in mice by dermal application (0.25 ml dose rate applied once or twice a week), it was shown that there was no carcinogenic potential in sufficiently refined oil. Not classified as to carcinogenicity to humans (IARC – Petroleum solvents). (Di-tert-butylphenol, 2,6-) In a two generation oral study with rats, there was no increased incidence of adenomas or carcinomas of the liver.
Reproductive / Developmental Toxicity:	This product is not expected to be reproductively or developmentally harmful. (Distillates (petroleum), hydrotreated light naphthenic) In dermally-exposed rats at up to 1000 mg/kg/day during gestation, the developmental NOAEL was determined to be 125 mg/kg/day based on decreased fetal body weights and skeletal anomalies at the highest dose (similar oil). (Di-tert-butylphenol, 2,6-) No adverse effects on reproduction were found in a two generation study with rats by oral administration. No significant adverse effects on fetal development were observed.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Single Exposure:	(Distillates (petroleum), hydrotreated light naphthenic) No data. (Di-tert-butylphenol, 2,6-) No data.
Chronic/Subchronic Toxicity: Specific Target Organ/Systemic Toxicity – Repeated Exposure:	(Distillates (petroleum), hydrotreated light naphthenic) In a 13-week oral study in rats at up to 500 mg/kg/day, the LOAEL was 125 mg/kg/day based on organ weight changes, reddening/discoloration of organs and atrophy in male sex organs (similar oil). (Di-tert-butylphenol, 2,6-) In a 42-day oral study in rats at up to 61 mg/kg/day, there was no significant adverse effects observed.
Aspiration Hazard:	This product poses an aspiration hazard. It may cause chemical pneumonitis, which can be fatal.

**SECTION 11 TOXICOLOGICAL INFORMATION**

Additional Information: None.

**SECTION 12 ECOLOGICAL INFORMATION**

*If available, ecological data for the product is given; otherwise component data is listed.*

Acute Ecotoxicity: This product may be harmful to aquatic species.  
 (Distillates (petroleum), hydrotreated light naphthenic) LL50 (fathead minnow) > 100 mg/l/96 hr; EL50 (Daphnia magna) > 10000 mg/l/48 hr; NOEL (algae) ≥ 100 mg/l/72 hr.  
 (Di-tert-butylphenol, 2,6-) LC50 (Zebra fish) > 0.57 mg/l/96 hr; EC50 (Daphnia magna) 0.48 mg/l/48 hr; EC50 (green algae) > 0.4 mg/l/72 hr.

Mobility: (Distillates (petroleum), hydrotreated light naphthenic) No data.  
 (Di-tert-butylphenol, 2,6-) No data.

Persistence/Degradability: (Distillates (petroleum), hydrotreated light naphthenic) Inherently biodegradable (31% in 28 days).  
 (Di-tert-butylphenol, 2,6-) Not readily biodegradable (4.7% in 28 days).

Bioaccumulation: (Distillates (petroleum), hydrotreated light naphthenic) No data.  
 (Di-tert-butylphenol, 2,6-) Not expected to significantly bioaccumulate in aquatic organisms based on estimated BCF values of 465 to 1656.

Other adverse effects: None.

**SECTION 13 DISPOSAL CONSIDERATION**

Environmental precautions: Prevent the material from entering drains or water courses. Do not discharge directly to a water source. Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

Product Disposal: Dispose in accordance with all local, state (provincial), and federal regulations. Under RCRA, it is the responsibility of the product's user to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. This is because the product uses, transformations, mixtures, processes, etc. may render the resulting materials hazardous.

Container Disposal: Do not remove label until container is thoroughly cleaned. Empty containers may contain hazardous residues. This material and its container must be disposed of in a safe way.

**SECTION 14 TRANSPORT INFORMATION**

DOT (US):

Proper Shipping Name: Not regulated  
 UN Number: None.  
 Class: None.  
 Packaging Group: None.  
 Reportable Quantity: None.  
 Marine Pollutant: None.

IATA:

Proper Shipping Name: Not regulated  
 UN Number: None.  
 Class: None.

**SECTION 14 TRANSPORT INFORMATION**

Packing Group:	None.
IMDG:	
Proper Shipping Name:	Not regulated
UN Number:	None.
Class:	None.
Packing Group:	None.
Marine Pollutant:	None.

*Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations.*

**SECTION 15 REGULATORY INFORMATION**

US Toxic Substance Control Act:	All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.
Canadian Domestic Substance List:	All components of this product are listed on the Canadian Domestic Substance List.
EU REACH:	One or more components of this product may not have been pre-listed or registered under REACH. Limited quantities may be permitted.
TSCA Sec.12(b) Export Notification:	This product does not contain a chemical at or above de minimis concentrations which requires reporting.
Canadian WHMIS Classification:	None.  This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR.
Massachusetts Right-To-Know:	This product contains materials subject to disclosure under the Massachusetts Right-To-Know Law: - Distillates (petroleum), hydrotreated light naphthenic (as petroleum distillates) - Di-tert-butylphenol, 2,6-
New Jersey Right-To-Know:	This product contains materials subject to disclosure under the New Jersey Right-To-Know Law: - Distillates (petroleum), hydrotreated light naphthenic (as petroleum distillates) - Di-tert-butylphenol, 2,6-
Pennsylvania Right-To-Know:	This product contains materials subject to disclosure under the Pennsylvania Right-To-Know Law: - Distillates (petroleum), hydrotreated light naphthenic (as petroleum distillates) - Di-tert-butylphenol, 2,6-
California Proposition 65:	This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.
SARA TITLE III-Section 311/312 Categorization (40 CFR 370):	Immediate (acute) hazard  (as of 2018, the EPA has adopted GHS hazard classifications)
SARA TITLE III-Section 313 (40 CFR 372):	This product does not contain materials which are listed in Section 313 at or above de minimis concentrations.
CERCLA Hazardous	This product does not contain materials subject to reporting under

**SECTION 15 REGULATORY INFORMATION**

Substance (40 CFR 302)	CERCLA and Section 304 of EPCRA.	
Water Hazard Class (WGK):	This product is slightly water-endangering (WGK=1).	
Other Chemical Inventories:	Australia (AICS):	All components of this product are listed.
	China (IECSC):	All components of this product are listed.
	Japan (ENCS):	All components of this product are listed.
	Korea (KCI):	All components of this product are listed.
	Philippines (PICCS):	All components of this product are listed.
	Taiwan (TCSI):	All components of this product are listed.

**SECTION 16 OTHER INFORMATION**

NFPA Rating - HEALTH:	1		
NFPA Rating - FIRE:	1		
NFPA Rating - REACTIVITY:	0		
NFPA Rating - SPECIAL:	NONE		
Full text of H-Statements referred to under Section 3:			
H304	May be fatal if swallowed and enters airways		
H315	Causes skin irritation		
H350	May cause cancer		
H361	Suspected of damaging fertility or the unborn child		
H400	Very toxic to aquatic life		
H410	Very toxic to aquatic life with long lasting effects		
SDS Date Issued:	November 22, 2021		
SDS Current Version:	1.0	Version Date:	November 22, 2021
SDS Revision History:	v1.0 Initial version.		
Abbreviations:	GHS: Globally Harmonized System of Classification and Labeling of Chemicals CAS#: Chemical Abstract Services Number ACGIH: American Conference of Governmental Industrial Hygienists OSHA: Occupational Safety and Health Administration NFPA: National Fire Protection Association DOT: US Department of Transportation RCRA: US Resource Conservation and Recovery Act TLV: Threshold Limit Value TWA: Time-Weighted Average PEL: Permissible Exposure Limit STEL: Short Term Exposure Limit WEEL: Workplace Environmental Exposure Levels AIHA: American Industrial Hygiene Association NTP: National Toxicology Program IARC: International Agency for Research on Cancer LD50: Lethal Dose 50% LC50: Lethal Concentration 50% NOAEL: No Observed Adverse Effect Level NOEL: No Observed Effect Level EC50: Effective Concentration 50% LL50: Lethal Loading Rate 50%		



**SECTION 16 OTHER INFORMATION**

BCF Bioconcentration Factor  
BOD: Biological Oxygen Demand  
Koc: Soil Organic Carbon Partition Coefficient.  
TIm: Median Tolerance Limit

Key References: United States National Library of Medicine's TOXNET  
Patty's Toxicology, 5<sup>th</sup> Edition  
European Commission's Institute for Health and Consumer Protection  
European Chemicals Agency (ECHA)  
American Conference of Governmental Industrial Hygienists  
International Agency for Research on Cancer  
United States National Toxicology Program  
United States Occupational Safety and Health Administration  
United States Department of Transportation  
Supplier Material Safety Data Sheets

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