SAFETY DATA SHEET

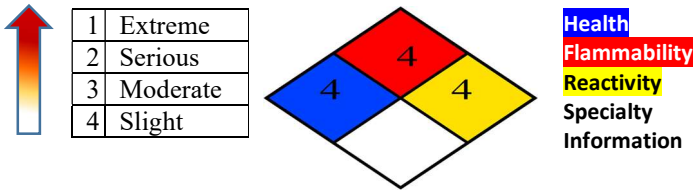
Recycled Mineral Oil Dielectric Fluid
Revised Date: 1/31/2020

SECTION 1: IDENTIFICATION

PRODUCT NAME	Recycled Mineral Oil Dielectric Fluid
CAS NUMBER	64742-53-6
PRODUCT USE	Base Stock Oil
MANUFACTURER	Emerald Transformer PPM LLC
ADDRESS	1875 Forge Street Tucker, GA 30084
PHONE	770-934-0902
EMERGENCY CONTACT:	FOR SPILLS, LEAKS, FIRE or EXPOSURE CALL **844-576-1321**

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

GHS Pictogram	NEW GHS SCALE
	
WARNING	Personal Protective Equipment 

EMERGENCY OVERVIEW:

HAZARD STATEMENTS

H320	Causes eye irritation
H315	Causes skin irritation
H303	May be harmful if swallowed
H305	May be harmful if swallowed and enters airways
H335	May cause respiratory irritation

PRECAUTIONARY STATEMENTS

P264	Wash hands thoroughly after handling
P280	Wear protective gloves/protective clothing/eye protection/face protection
P271	Use only out doors or in a well-ventilated area
P270	Do not eat, drink, or smoke when using this product
P261	Avoid breathing dust/fume/gas/mist/vapours/spray.

APPEARANCE, COLOR, ODOR: Liquid, Light gold to amber, characteristic odor.

READ THE ENTIRE SDS FOR MORE THOROUGH EVALUATION OF THE HAZARDS

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NUMBER	% WEIGHT
Distillates (Petroleum), Hydro-treated Light Naphthenic (Common name – Mineral Oil)	64742-53-6	>99%

SECTION 4: FIRST AID MEASURES

EYE:	**H320**	Causes eye irritation. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do, continue rinsing. If eye irritation persists: Get medical advice/attention.
SKIN:	**H315**	Causes skin irritation. IF ON SKIN: wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before use.
INHALATION:	**H335**	May cause respiratory tract irritation. IF INHALED: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, (trained personal should) give oxygen. If any symptoms persist, or if any measures do not relieve the condition, seek medical help.
INGESTION:	**H303/H305**	May be harmful if swallowed. Can enter lungs and cause damage. IF SWALLOWED: do NOT induce vomiting. If vomiting occurs have person lean forward. Call a poison control center or physician immediately. Never give anything by mouth to an unconscious person.

SECTION 5: FIRE FIGHTING MEASURES

FLASH POINT:	>147C (298F)
HAZARDS WHEN ON FIRE OR NEAR FLAME:	Fumes, smoke, carbon monoxide, aldehydes and other decomposition products may occur with incomplete combustion.
SUITABLE EXTINGUISHING MEDIA:	Foam, water spray (fog), dry chemical, carbon dioxide and vaporizing liquid type fire extinguishing agents may all be suitable for extinguishing fires and circumstances related to the situation.
NOT SUITABLE EXTINGUISHING MEDIA:	Do not use direct water spray.
SPECIAL EXPOSURE HAZARDS:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. If in a fire or heated, a pressure increase will occur and the container may rupture.
SPECIAL PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn. Fire residues and contaminated fire extinguishing media must be disposed of in accordance with local, state and/or federal regulations.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:

For major spills call: 844-576-1321.

PERSONAL PRECAUTIONS:

Wear appropriate personal protective equipment recommended in SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION of this SDS. Immediately contact emergency personnel. Evacuate the area. Keep upwind avoiding inhalation of vapors. Clean-up should only be performed by trained personnel. People dealing with major spillages should wear full protective clothing including respiratory protection.

ENVIRONMENTAL PRECAUTIONS:

This material may contaminate the environment without proper control and response to spills. Ensure spilled material does not come in contact with soil, waterway, drains, sewers, or other runoff that would further disperse the material. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air). Sources of ignition should be kept clear.

METHODS FOR CONTAINMENT:

Use diking or capping to control migration. Contain and absorb large spillages with a non-flammable absorbent carrier (such as vermiculite, earth or sand. DO NOT USE combustible materials such as sawdust). Shovel into open-top drums or plastic bags for further decontamination, if necessary. Wash the spillages with decontaminant. Remove and properly dispose of residues. Dispose of via a licensed waste disposal contractor (See SECTION 13: DISPOSAL CONSIDERATIONS) Notify applicable government authorities if release is reportable. The National Response Center can be reached at (800) 424-8802.

METHODS FOR CLEANING UP:

Only proceed with clean up by taking the appropriate personal protection measures required and ensure surrounding area does not contain further hazards that could worsen the spill, cause migration, or cause further harm (i.e. eliminate any ignition sources). Move any non-contaminated, non-leaking containers from the spill zone if it can be done safely. Dike, dam, or further restrict and stop active leaks without posing further damage or harm to individuals, the environment, and/or structures. Contain and collect spillage. See SECTION 13: DISPOSAL CONSIDERATIONS for disposal information and SECTION 8: EXPOSURE CONTROL/ PERSONAL PROTECTION for recommended Personal Protective Equipment (PPE). Obey all local, state, and federal regulations during clean up.

SECTION 7: HANDLING & STORAGE

GENERAL:

Handling and storage shall be in accordance with local, state/provincial, or federal regulations. This material is a static accumulator.

HANDLING:

Before opening this package, read and follow warning labels on all components. Avoid contact with the product or reaction mixture. Put on

appropriate personal protective equipment (see Section 8). Use only with adequate ventilation to ensure that the occupational exposure limit is not exceeded, use respirator when ventilation is inadequate. Avoid breathing aerosols, mists, and vapors. (See SECTION 8: EXPOSURE CONTROL/PRESONAL PROTECTION for details). Do not ingest. Keep stocks of decontaminate readily available. Eating, drinking and smoking shall be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Do not get in eyes, on skin, or clothing. Keep in the original container or an approved alternative made from a compatible material. Kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse containers.

STORAGE: Keep containers properly sealed and when stored indoors, in a dry and well-ventilated area. Do not store in open or unlabeled containers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSRE LIMITS:

INGREDIENT NAME	CAS Number	EXPOSURE LIMITS
Distillate (Petroleum) Hydrotreated Light Naphthenic	64742-53-6	**ACGIH TLV (United States, 2/2010).** TWA: 5 mg/m³ 8 hour(s) STEL: 10 mg/m³ 15 minute(s)

ENGINEERING CONTROLS: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor, or mist, use process enclosures, local exhaust ventilation, and other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

HYGIENE MEASURES: Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Appropriate engineering, administrative, and other best practice decontamination control measures must be used to isolate contaminates on clothing and to prevent unintended migration of contaminants. Handle clothing and other potentially contaminated material appropriately and in compliance with local, state, and federal regulations in the process of removing, washing/cleaning and reuse of these potentially contaminated materials. Ensure compliant use and location of eyewash state and safety showers.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

EYE PROTECTION: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mist, or dusts. If contact is possible, the following protection shall be worn, unless the assessment indicates a higher degree of protection: safety glasses with side shields or full face shields are recommended. If inhalation hazards exist, a full-face respirator may be required.

SKIN PROTECTION: Personal protective equipment for the body should be selected based on the task being performed; the risks involved, and should be approved by an industrial hygiene specialist before handling this product.

HANDS PROTECTION: Chemical resistant gloves complying with applicable health and safety standards shall be worn when handling this product. Protective gloves are those made from butyl rubber, nitrile rubber, or polyvinyl alcohol. Appropriate hazard assessments in conjunction with an evaluation of the protection factors of chemical resistant gloves shall be performed to ensure the protective properties remain intact. It is noted that the time to breakdown of protection factors for different glove manufacturers varies. In the case of mixtures, the protection factors of chemical resistant gloves may be impacted and deteriorate at unpredictable rates without understanding the impact of the substance and the specific protection factors of the chemical resistant gloves.

RESPIRATORY PROTECTION: Ensure adequate ventilation. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product, and the safe working limits of the selected respirator. Ensure the respirator is properly fitted.

ENVIRONMENTAL EXPOSURE CONTROLS: Dispose of raw and spent materials and wastes in compliance with all local, state, and federal regulations to prevent potential environmental contamination. Industrial air monitoring may be required to determine any potential environmental hazards to the atmosphere. This monitoring may result in the use of engineering and administrative controls such as filtering and scrubbing systems to mitigate or eliminate potential contaminants.

SECTION 9: PHYSICAL & CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid	**FLASH POINT:**	>147C (298F)
COLOR:	Light gold to amber	**AUTO-IGNITION TEMP:**	>315°C (599°F)
ODOR:	Characteristic	**DECOMPOSITION TEMPERATURE:**	Not available
ODOR THRESHOLD:	Not available	**EXPLOSIVE LIMITS:**	LEL: 0.9% UEL: 7%
pH:	Not available	**FLAMMABILITY:**	Not available
WATER SOLUBILITY:	Negligible	**BOILING POINT:**	249C (480F)
PARTITION COEFFICIENT:	Not available	**BOILING RANGE:**	Not available
SPECIFIC GRAVITY:	0.887 g/cc ± 0.1	**MELTING/FREEZING POINT:**	-45°C (-49°C)
VISCOSITY:	9 cSt at 40°C 2.4 cSt at 100°C	**VAPOR PRESSURE:**	< 0.01 mm Hg at 20°C
EVAPORATION RATE:	< 0.01	**VAPOR DENSITY:**	> 5 at 101 kPa
VOC:	Not available	**RELATIVE DENSITY:**	7.40 lbs./gal ± 0.5

SECTION 10: STABILITY & REACTIVITY

STABILITY: Material is stable under normal conditions.

INCOMPATIBILITY: Incompatable with excessive heat, high energy sources of ignition, strong oxidizers such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite

HAZARDOUS REACTION: Avoid strong oxidizers such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, etc. as these present a serious explosion hazard.

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Avoid strong oxidizers such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, etc.

HAZARDOUS DECOMPOSITION: Material does not decompose at ambient temperatures.

SECTION 11: TOXICOLOGY INFORMATION

SIGNS AND SYMPTOMS OF OVEREXPOSURE/ACUTE HEALTH EFFECTS:

EYE CONTACT: Causes eye irritation.

SKIN CONTACT: Causes skin irritation

INHALATION: May cause respiratory irritation .

INGESTION: May be harmful if swallowed and enters airways.

ACUTE TOXICITY:

INGREDIENT NAME	CAS Number	LD_{50} Oral (mg/kg)	LD_{50} Dermal (mg/kg)	LC_{50} Inhalation (mg/m^3/4hrs)	LD_{50} Intraperitoneal (mg/kg)
Distillate (Petroleum) Hydrotreated Light Naphthenic	64742-53-6	(Rat): LD50 > 5000 mg/kg	(Rabbit): LD50 > 5000 mg/kg	(Rabbit): LD50 > 5000 mg/kg	Not available

POTENTIAL CHRONIC EFFECTS

CHRONIC EFFECTS: Prolonged or repeated skin contact with this product tends to remove skin oils, possibly leading to irritation and dermatitis; however, based on human experience and available technological data, this product is judged to be neither a “corrosive” nor an “irritant” by OSHA criterion. Product contacting the eyes may cause irritation. Product has a low order of acute oral or dermal toxicity, but minute amounts aspirated into the lungs during ingestion or vomiting may cause mild to severe pulmonary injury and possibly death.

TARGET ORGANS: Skin.

CARCINOGENICITY:	As of this publication, this material is not listed on the National Toxic Program (NTP) Report of Carcinogens. Please refer to the most recent information with NTP. In accordance with current OSHA Hazard Communication Standard criterion, this product does not require a cancer warning. This is because the product is formulated from base stock which is severely hydro-treated, severely solvent extracted, and/or processed by mild hydro-treatment and extraction.
MUTAGENICITY:	No known significant effects or critical hazards.
TERATOGENICITY:	No known significant effects or critical hazards.
FERTILITY EFFECT:	No known significant effects or critical hazards.
DEVLEOPMENTAL EFFECTS:	No known significant effects or critical hazards.
MEDICAL CONDITIONS AGGRAVATED BY OVER-EXPOSURE:	Existing respiratory/pulmonary conditions may be aggravated by overexposure.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS:	Material -- Not expected to be harmful to aquatic organisms. Base oil component -- Expected to be inherently biodegradable.

SECTION 13: DISPOSAL CONSIDERATION

WASTE DISPOSAL:	By-product wastes or process waste generation shall be eliminated and/or minimized when possible. Do not dispose of any contaminants into sanitary sewer systems, storm drains, Publicly Owned Treatment Works (POTW), or any other municipal waste water treatment without written approval and agreements for processing wastes with such enterprises. Dispose of raw or unused materials, wastes, and/or by-products in accordance with all applicable local, state, and federal laws. Employ the expertise and knowledge of qualified personnel or contractors in disposal of any and all variants of this product. Ensure material containers are cleaned to the applicable standards before recycling, disposing, or reusing containers. Take special precautions to avoid any cross contamination and potential unknown effects from mixing with other substances. Refer to SECTION 8 of this document for personal protection requirements. Disposal to the environment or in violation of environmental protection laws and statutes must be prevented. Product is suitable for burning in an enclosed controlled burner for energy recovery or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products such as carbon monoxide. RCRA Information: The unused product is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

SECTION 14: TRANSPORT INFORMATION

PROPER SHIPPING NAME:

DOT:	Not Regulated for Land Transport.
TDG:	Not Regulated for Land Transport.
IMDG:	Not Regulated for Sea Transport according to IMDG-Code.
IATA:	Not Regulated for Air Transport

This product could potentially contaminate aquatic and terrestrial environments if not handled in accordance with all precautions, regulations, and laws. Users, transporters, and all other applicable entities must review, follow, and apply any and all necessary precautions and procedures to eliminate and/or minimize potential hazards or risks to aquatic or terrestrial environments.

SECTION 15: REGULATORY INFORMATION

U.S. Federal Regulations
When used for its intended purpose, this material is classified as hazardous under OSHA Hazard Communication Standard (29 CFR 1910.1200).

HCS Classification: Irritant

TSCA 8b Inventory: None.

TSCA 5a(2): None.

TSCA 5e: None.

TSCA 12b: None.

Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs) None.

Clean Air Act – Ozone Depleting Substances (ODS): This product does not contain nor is it manufactured with ozone depleting substances.

Form R- Reporting Requirements: None.

CERCLA Hazardous substances: None.

STATE REGULATIONS None.

PENNSYLVANIA – RTK:

California Prop 65: This product contains no listed substances known to the State of California to cause cancer, birth defects, or other reproductive harm, at levels which would require a warning under the statute.

CANADA
WHMIS (Canada): None.

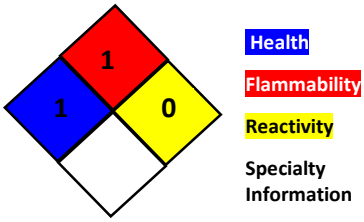
CEPA DSL: All components are listed or exempted.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

INTERNATIONAL LISTS:
Australia inventory (AICS): Information not available.
China inventory (IECSC): Information not available.
Japan inventory: Information not available.
Korea inventory: Information not available.
New Zealand inventory of Chemicals (NZIoC): Information not available.
Philippines inventory (PICCS): Information not available.

SECTION 16: OTHER INFORMATION

4	Extreme
3	Serious
2	Moderate
1	Slight
0	No Hazard

National Fire Protection Association (NFPA)



Hazardous Material Information System (HMIS)

Health	1
Flammability	1
Reactivity	0
PPE	

Note: The customer is responsible for determining the PPE code for this material. At the time of publishing, the NFPA/HMIS and the New GHS scale had opposite scales of severity. Check the most recent publications for current information.

Date of Issue: 1/31/2020
Date of previous issue: 7/7/2014
For Your Protection: The information and recommendations in this publication is to the best of our knowledge and reliable. The toxicity and risk characteristics of products made by Emerald Transformer will necessarily differ from the toxicity and risk

characteristics that occur when such products are used with other materials during a manufacturing process. The resulting risk characteristics should be determined and made known to ultimate end-users and processors. The user is responsible to comply with all applicable federal, provincial or municipal laws and regulations. EMERALD TRANSFORMER MAKES NO WARRANTIES OF ANY KIND, EXPRESSED OR IMPLIED, INCLUDING THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

Preparation Information: This SDS supersedes ALL previous SDS versions.