

SDS: FLU-TRAN I

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Use: Electrical Insulating Oils
Product Numbers(s): FLU-TRAN I

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

Information on ingredients that are considered controlled products and/or that appear on WHMIS Ingredient Disclosure List (IDL) is provided as required by the Canadian Hazardous Products Act (HPA, Sections 13 and 14). Ingredients considered hazardous under the OSHA Hazard Communication Standard, 29 CFR 1910, 1200, are also listed. See Section 15 for additional regulatory information.

Components	CAS Number	Amounts
Hydrotreated Light Paraffinic Distillate	64742-55-8	>99% weight
Antioxidant Butylated hydroxytoluene (BHT)	128-37-0	<0.3%

SECTION 3 – HAZARDS IDENTIFICATION

IMMEDIATE HEALTH EFFECTS

Eye: Not expected to cause prolonged or significant eye irritation.

Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Contact with the skin is not expected to cause an allergic skin response. Not expected to be harmful to internal organs if absorbed through the skin. Pre-existing skin disorders should avoid contact with this product.

Ingestion: Material may be harmful or fatal if swallowed. Ingestion may lead to vomiting and aspiration (breathing) of vomitus into the lungs and must be avoided as even small quantities may result in aspiration pneumonitis. Generally considered to have a low order of acute toxicity.

Inhalation: Not expected to be harmful if inhaled. Contains a petroleum-based mineral oil. May cause respiratory irritation or other pulmonary effects following prolonged or repeated inhalation of oil mist at airborne levels above the recommended mineral oil mist exposure limit. Symptoms of respiratory irritation may include coughing and difficulty breathing.

SECTION 4 – FIRST AID MEASURES

Eye Contact: No specific first aid measures are required. As a precaution, remove contact lenses, if worn, and flush eyes with water.

Skin Contact: No specific first aid measures are required. As a precaution, remove clothing and shoes if contaminated. To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: No specific first aid measures are required. Do not induce vomiting. As a precaution get medical advice. If vomiting occurs, keep head below hips to prevent aspiration of liquid into the lungs.

Inhalation: No specific first aid measures are required. If exposed to excessive levels of material in the air, move the exposed person to fresh air. Get medical attention of coughing or respiratory discomfort occurs.

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SECTION 5 – FIRE-FIGHTING MEASURES

NFPA 704 Hazard Class

Health: 0 Flammability: 1 Instability: 0
(0=minimal, 1=slight, 2=moderate, 3=serious, 4=severe)

FLAMMABLE PROPERTIES:

Flashpoint: (Cleveland Open Cup) 177°C (350°F) (Min)

Autoignition: No Data Available

Flammability (Explosive) Limits (%by volume in air): Lower: Not Applicable Upper: Not Applicable

Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

PROTECTION OF FIRE FIGHTERS:

Fire-Fighting Instruction: This material will burn, although it is not easily ignited. For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic compounds will be evolved when this material undergoes combustion.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Protective Measures: Eliminate all sources of ignition in vicinity of spilled material.

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in manner consistent with applicable regulations.

Reporting: Report spills to local authorities as appropriate or required.

SECTION 7 – HANDLING AND STORAGE

General Handling Information: Avoid contaminating soil or releasing this material into sewage an drainage systems and bodies of water.

Static Hazard: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary by may not, by themselves, be sufficient. Review all operations which have the potential of generating and accumulating an electrostatic charge and/or flammable atmosphere (including tank and container filling, splash filling, tank cleaner, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106 'Flammable and Combustible Liquids', and/or the American Petroleum Institute (API) Recommended Practice 2003, 'Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents.

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Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, 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. Empty containers should be completely drained, properly closed and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

General Considerations:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provide for a limited time or under certain circumstances.

Engineering Controls:

Use in a well-ventilated area.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: No special eye protection is normally required. Where splashing is possible, wear safety glasses with side shields as a good safety practice.

Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Nitrile Rubber, Silver Shield, Viton.

Respiratory Protection: No respiratory protection is normally required. If user operations generate an oil mist, determine if airborne concentrations are below the occupational exposure limit for mineral oil mist. If not, wear an approved respirator that provides adequate protection from the measured concentrations of this material. For air-purifying respirators use a particulate cartridge.

Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not provide adequate protection.

Component	Agency	TWA	PELS	TLV	Notation
Hydrotreated Light Paraffinic Distillate.	ACGIH	5 mg/m ³	5 mg/m ³	5 mg/m ³	--
Xylenes	ACGIH	100 ppm			8 hours
Ethylbenzene	ACGIH	100 ppm			8 hours

NOTE ON OCCUPATIONAL EXPOSURE LIMITS:

Consult local authorities for acceptable provincial values in Canada. Consult the Canadian Standards Association Standard 94.4-2002 Selection, Use and Care of Respirators.

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SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification

Color: Colorless

Physical State: Liquid

Odor: Petroleum Odor

pH: Not applicable

Vapor Pressure: <0.1 mmHg @ 37.8 °C (100°F)

Vapor Density (Air=1): >1

Boiling Point: >260°C (500°F)

Solubility: Soluble in hydrocarbons; insoluble in water

Pour Point: -40C

Melting Point: Not applicable

Specific Gravity: 0.85 – 0.88 @ 15.6°C (60.1°F)/15.6°C (60.1°F)

Viscosity: 9 cSt -11 cSt @ 40°C (104°F) (Min)

Coefficient of Water/Oil Distribution: No Data Available

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibilities With Other Materials: May react with strong acids or strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products: None known (None expected)

Hazardous Polymerization: Hazardous polymerization will not occur.

Sensitivity to Mechanical Impact: No

SECTION 11 – TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS

Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials of product components.

Non-irritating 2.7/110 (Rabbit)

Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials of product components.

Non-irritating 0.92/8.0 (Rabbit)

Skin Sensitization: The skin sensitization hazard is based on evaluation of data for similar materials or product components.

Acute Dermal Toxicity: DL50: >2000 mg/kg (Rabbit). The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components. Non-toxic.

Acute Oral Toxicity: LC50: >5000 mg/kg (rat). The acute oral toxicity hazard is based on evaluation of data similar materials or products. Non-Toxic.

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SECTION 12 – ECOLOGICAL INFORMATION

EcoToxicity

The toxicity of this material to aquatic organisms has not been evaluated. Consequently, this material should be kept out of sewage and drainage systems and all bodies of water.

Environmental Fate

This material is considered inherently biodegradable. This material is not expected to present any environmental problems other than those associated with oil spills. This material is not expected to be readily biodegradable. See Section 6 for Accidental Release Measures.

SECTION 13 – DISPOSAL CONSIDERATIONS

This material for its intended purpose or recycle if possible. Oil collection services are available for used oil recycling or disposal. Place contaminated materials in containers and dispose of in a manner consistent with applicable regulations. Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods. (See B.C. Reg. GY/92 Waste Reduction and Prevention Act; N.S. Reg. 1/95 and N.S Reg. 179/96 for examples for Provincial legislation.

SECTION 14 – TRANSPORT INFORMATION

The description shown may not apply to all shipping situations. Consult 49CFR, or appropriate Dangerous Goods Regulations, for additional description requirements (e.g, technical name) and mode-specific or quantity-specific shipping requirements.

TC Shipping Description: PETROLEUM OIL, N.O.I.B.N., NOT REGULATED AS A DANGEROUS GOOD.

DOT Shipping Description: PETROLEUM POLD, N.O.I.B.N.N NOT REGULATED AS A HAZARDOUS MATERIAL

SECTION 15 – REGULATORY INFORMATION

REGULATORY LIST SEARCHED

01-1 = IARC Group 1

01-2A = IARC Group 2A

01-2B = IARC Group 2B

35 = Whmis IDL

No components of this material were found on the regulatory lists above.

SARA Hazard Category (331/312):

Immediate Health	Delayed Health	Fire	Pressure	Reactivity
NO	NO	NO	NO	NO

SARA Toxic Release Inventory (TRI)(313):

There are no components in this product on the SARA 313 List.

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Chemical Inventories:

All components comply with the following chemical inventory requirements: AICS (Australia), DSL (Canada), EINECS (European Union), KECI (Korea), PICCS (Philippines), TSCA (United States).

WHMIS Classification:

This product is not considered a controlled product according to the criteria of the Canadian Controlled Products Regulation. This product has been classified in accordance with the hazard required by those regulations. (See Hazardous Products Act (HPA), R.S.C. 1974, c.H-3,s.2).

This material is not regulated by the California Prop 65, New Jersey Right-to-know Chemical list or Pennsylvania Right-to-know-chemical list.

SECTION 16 – OTHER INFORMATION

HMIS RATINGS: Health: 0 Flammability: 1 Reactivity: 0

ABBREVIATIONS THAT MAY HAVE BEEN USED IN THIS DOCUMENT:

TLV – Threshold Limit Value

STEL- Short-term Exposure Limit

CAS – Chemical Abstract Service Number

ACGIH- American Conference of Government
Industrial Hygienists

API – American Petroleum Institute

NFPA – National Fire Protection Association (US)

DOT – Department of Transportation (USA)

IARC –International Agency for Research on Cancer

TWA- Time Weighted Average

PEL – Permissible Exposure Limit

IMO/IMDG – International Maritime Dangerous
Goods Code

SDS – Material Safety Data Sheet

NTP – National Toxicology Program (USA)

OSHA – Occupational Safety and Health
Administration

The above information is based on the data of which we are aware and is believe to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data may be available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

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