

Material Safety Data Sheet

1. Product Information

Product Name: **Mineral Insulating Oil**
Product Identifier: **MODEF60**

Application and Use: Insulating oil for use in electrical transformers, circuit breakers and switches
Product Description: A lubricating oil consisting of a mixture of saturated and unsaturated hydrocarbons derived from naphthenic distillate, and additives.

Supplier/Manufacturer: Aevitas-Transformer Oil Division (519) 752-7646
46 Adams Blvd. CANUTEC: (613) 996-6666
Brantford, ON, N3S 7V2

REGULATORY CLASSIFICATION

WHMIS: Not a controlled product

CEPA: CANADIAN ENVIRONMENTAL PROTECTION ACT
All components of this product are either on the Domestic Substances List (DSL) or are exempt.

TDG INFORMATION (RAIL/ROAD): Not regulated in Canada.

Please be aware that other regulations may apply.

2. Regulated Components

The following components are defined in accordance with sub-paragraph 13(a) (i) to (iv) or paragraph 14(a) of the Hazardous Products Act:

| NAME | % | CAS # |
|----------------|---|-------|
| Not applicable | | |

3. Typical Physical & Chemical Properties

| | |
|----------------------|--------------------------------------|
| Physical State: | Liquid |
| Specific gravity: | 0.86 – 0.875 |
| Viscosity: | 8.10 cSt at 40°C |
| Vapour Density: | not available |
| Boiling Point: | 229-444°C |
| Evaporation rate: | <0.1 (1=n-butylacetate) |
| Solubility in water: | negligible |
| Freezing/Pour Point: | -40°C ASTM D97 |
| Odour Threshold: | Not available |
| Vapour Pressure: | <1 kPa at 38°C |
| Density: | 0.91 g/cc at 15°C |
| Appearance/odour: | Clear to Yellow oil, petroleum odour |

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4. Health Hazard Information

NATURE OF HAZARD

- Inhalation:** Negligible hazard at normal temperatures (up to 38°C). Elevated temperatures or mechanical action may form vapours, mists or fumes which may be irritating to the eyes, nose, throat and lungs. Avoid breathing vapours or mists.
- Eye Contact:** Slightly irritating, but will not injure eye tissue.
- Skin Contact:** Low toxicity. Frequent or prolonged contact may irritate the skin.
- Ingestion:** Low toxicity. Small amounts of this liquid drawn into the lungs from swallowing or vomiting may cause severe health effects (e.g. Bronchopneumonia or pulmonary edema).

ACUTE TOXICITY DATA:

Based on animal testing data from similar materials and products the acute toxicity of this product is expected to be:

- Oral:** LD50 > 5000 mg/kg (Rat)
Dermal: LD50 > 3160 mg/kg (Rabbit)
Inhalation: LC50 > 5000 mg/m³ (Rat)

OCCUPATIONAL EXPOSURE LIMIT:

ACGIH recommends: For oil mists, 5 mg/m³. Local regulated limits may vary.

5. First Aid Measures

- Inhalation:** Vapour pressure of this material is low and as such inhalation under normal conditions is usually not a problem. If overexposed to oil mist, remove from further exposure. Administer artificial respiration if breathing has stopped. Keep at rest. Call for prompt medical attention.
- Eye Contact:** Flush eyes with large amounts of water until irritation subsides. If irritation persists, get medical attention.
- Skin Contact:** Flush with large amounts of water. Use soap if available. Remove severely contaminated clothing (including shoes) and launder before reuse. If irritation persists, seek medical attention.
- Ingestion:** DO NOT induce vomiting since it is important that no amount of material should enter the lungs (aspiration). Keep at rest. Get prompt medical attention.

6. Preventive and Corrective Measures

Personal Protection:

The selection of personal protective equipment varies, depending upon conditions of use. In open systems where contact is likely, wear safety goggles, chemical resistant overalls, and chemically impervious gloves. Where only incidental contact is likely, wear safety glasses with side shields. No other special precautions are necessary provided skin/eye contact is avoided. Where concentrations in air may exceed the occupational exposure limits given in Section 4 and where engineering, work practices or other means

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of exposure reduction are not adequate, approved respirators may be necessary to prevent overexposure by inhalation.

Engineering Controls:

The use of local exhaust ventilation is recommended to control emissions near the source. Laboratory samples should be handled in a fumehood. Provide mechanical ventilation of confined spaces.

Handling, Storage and Shipping:

Keep containers closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. In keeping with good personal hygiene practices, wash hands thoroughly after handling the material. Do not handle or store near an open flame, sources of heat, or sources of ignition. Empty containers may contain product residue. Do not pressurize cut, heat or weld empty containers. Do not reuse empty containers without commercial cleaning or reconditioning.

Land Spill:

Eliminate source of ignition. Keep public away. Prevent additional discharge of material, if possible to do so without hazard. Prevent spills from entering sewers, watercourses or low areas. Contain spilled liquid with sand or earth. Recover by pumping or by using a suitable absorbent. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

Water Spill:

Remove from surface by skimming or with suitable absorbents. If allowed by local authorities and environmental agencies, sinking and/or suitable dispersants may be used in unconfined waters. Consult an expert on disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Notify the appropriate authorities immediately. Take all additional action necessary to prevent and remedy the adverse effects of the spill.

7. Fire and Explosion Hazard

Flashpoint and method: 145°C COC ASTM D92

Autoignition: NA Flammable Limits: LEL: NA UEL: NA

General Hazards:

Low hazard; liquids may burn upon heating to temperatures at or above the flash point. Decomposes; flammable/toxic gases will form at elevated temperatures (thermal decomposition). Toxic gases will form upon combustion.

Fire Fighting:

Use water spray to cool fire exposed surfaces and to protect personnel. Shut off fuel to fire. Use foam, dry chemical or water spray to extinguish fire. Respiratory and eye protection required for fire fighting personnel. Avoid spraying water directly into storage containers due to danger of boilover. A self-contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor



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fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of an SCBA may not be required.

Hazardous Combustion Products:

Smoke, carbon monoxide, carbon dioxide under thermal decomposition.

8. Reactivity Data

Stability: This product is stable. Hazardous polymerization will not occur.

Incompatible materials and conditions to avoid: Strong oxidizing agents.

Hazardous decomposition: Fumes, smoke, carbon monoxide and sulphur oxides in case of incomplete combustion.

9. Notes

All components of this product are listed on the U.S. TSCA inventory.

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