

# **THERMAL BATTERY FLUID**



## Technical Data Sheet

# E-THERMOTRON BATTERY FLUID

#### PRODUCT DESCRIPTION:

E-Thermotron is a biodegradable dielectric fluid with excellent heat removal capacity and high oxidation resistance. It is especially suitable for direct cooling (immersion) through direct contact with electric vehicle components, such as batteries, electric motors, or inverters that require good temperature control to optimize their performance.

#### APPLICATION:

Recommended for immersion cooling of electric vehicle components.

### FEATURES & BENEFITS:

- · Readily biodegradable
- · Excellent dielectric properties
- High oxidation resistance.
- · Given its good thermal properties, it has a very wide
- operating temperature range and shows exceptional behavior at very low temperatures.
- Good fire-resistant properties, since its ignition point is greater than 300°C

### PERFORMANCE LEVELS: Meets or Exceeds:

- · Type K fluid according to IEC 61100.
- In compliance with IEC 61099 standard for organic and synthetic esters

#### TYPICAL PROPERTIES:

| PARAMETERS                    | ASIM       | UNIT    | E-THERMOTRON |
|-------------------------------|------------|---------|--------------|
| Kinematic Viscosity @ -20°C   | ASTM       | cSt     | <1000        |
| Flash Point                   | ASTM D-92  | °C      | >200         |
| Pour Point                    | ASTM D-97  | °C      | -51          |
| Specific heat at 25°C         | ASTM E1269 | J/kg-K  | 1900         |
| Thermal conductivity at 25°C  | ASTM D7896 | W/m·K   | 0.145        |
| Dielectric breakdown voltage  | IEC 60156  | kV      | 75           |
| Resistance at 90°C            | IEC 60247  | G Ohm.m | 7            |
| Biodegradability over 28 days | OECD 301B  | %       | 70           |

**DISCLAIMER:** The test data provided above is not a specification but is indicative and may vary within permissible production tolerances. Lubrex reserves the right to modify this test data. Updated information will supersede previous versions, so please refer to the latest version of this Technical Data Sheet (TDS).

### HEALTH & SAFETY, ENVIRONMENT:

Prolonged and repeated contact with oil may cause skin disorders. Avoid contact. Wash immediately with soap and water. Do not discharge used oil in to drains or the environment. Dispose to an authorized used oil collection point. For further Information on Safety Guidelines please refer to MSDS available on our website www.

#### HEALTH & SAFETY:

This product is not likely to present any significant health or safety hazards when properly used in the recommended application and good standards of personal hygiene are maintained. Reference is made to the Safety Data Sheet (SDS) which is available on request via your local sales office or via the internet www.lubrex.net

### PROTECT THE ENVIRONMENT:

Take used oil to an authorized collection point. Comply with local regulation. Do not discharge into drains, soil or water.

#### STORAGE:

We recommend to store all packages under cover. In case outside storage is unavoidable, drums should be laid horizontally to avoid the possible ingress of water and damage to drum markings. Products should never be stored above 60°C, exposed to hot sun or freezing conditions.

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