

# Material Safety Data Sheet

## R-Temp<sup>®</sup> Fluid

Cooper Power Systems  
1900 East North Street  
Waukesha, Wisconsin 53188-3899 USA

Emergency Telephone: (262) 547-1251  
Product Information: [www.cooperpower.com](http://www.cooperpower.com)

### Hazardous Ingredients/Identity Information

**Exposure Limits:** OSHA PEL ACGIH<sup>1</sup> TLV STEL  
TWA (mg/m<sup>3</sup>) exposure limit for total product as oil mist (aerosol) 5 5 10

Ingredients:	CAS #	Component	Concentration
	64742-54-7	petroleum distillates, hydrotreated heavy paraffinic, or	>98%
	64742-65-0	petroleum distillates, solvent-dewaxed heavy paraffinic	
	118-82-1	alkylated phenol inhibitor	<1%
	<sup>2</sup>	flow modifier	<1%

**Hazardous Materials Identification System (HMIS):** Health 1 Flammability<sup>3</sup> 1 Reactivity<sup>3</sup> 0

Components of this product are listed on the U.S. Toxic Substances Control Act Chemical Substances Inventory.

<sup>1</sup> ACGIH states that the air is to be sampled by a method that does not collect vapor.

<sup>2</sup> EPA confidential CAS accession #22130

<sup>3</sup> Interchangeable with NFPA 704 ratings.

### Physical/Chemical Characteristics

<b>Boiling Point:</b> IPB ≈ 335 °C	<b>Specific Gravity (H<sub>2</sub>O = 1):</b> 0.88
<b>Vapor Pressure (mm Hg):</b> < 0.01 @ 20 °C	<b>Pour Point:</b> -21 °C
<b>Vapor Density (air = 1):</b> > 5	<b>Evaporation Rate (butyl acetate = 1):</b> < 0.01
<b>Solubility in water:</b> negligible; < 0.1%	<b>pH:</b> essentially neutral
<b>Appearance and odor:</b> Clear liquid, light yellow color. Mild, bland petroleum odor.	
<b>Volatile Organic Compounds (g/L):</b> < 0.001	

### Fire and Explosion Hazard Data

**Flash Point (ASTM D-92):** 275 °C (typical) **Lower Flammability Limit:** 0.9% **Upper Flammability Limit:** 7%

**Extinguishing Media:** CO<sub>2</sub>, dry chemical, foam, water spray (fog), and vaporizing liquid types may be suitable.

**Special Fire Fighting Procedures:** Use MSHA/NIOSH approved self-contained breathing apparatus with full face mask and full protective equipment in confined areas. Use water to keep fire-exposed containers cool. Water spray may be used to flush spills away from sources of ignition. Application of water to flaming oil can cause spreading.

**Unusual Fire and Explosion Hazards:** Slight when exposed to flame; can react with oxidizing materials.

### Reactivity Data

**Stability:** R-Temp fluid is stable under normal conditions of use.

**Incompatibility (materials to avoid):** Avoid contact with strong oxidizing agents.

**Hazardous Decomposition or By-Products:** Products of complete combustion of R-Temp fluid are carbon dioxide and water. Products of incomplete combustion include these compounds plus volatile hydrocarbons, carbon monoxide, and small amounts of polynuclear aromatic hydrocarbons. Quantities and types of combustion products of R-Temp fluid have been shown to be less than those for equivalent amounts of conventional transformer oil.

**Hazardous Polymerization:** will not occur

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### Health Hazard Data

**Routes of Entry:** Eye contact or inhalation possible under mist conditions.

**Skin:** Essentially non-toxic. Estimated rabbit acute dermal LD<sub>50</sub> > 3000 mg/kg. Repeated or prolonged contact may result in localized irritation of the skin. May cause allergic reactions in some individuals.

**Ingestion:** Essentially non-toxic. Rat acute oral LD<sub>50</sub> > 5000 mg/kg. May cause gastrointestinal distress. Symptoms may include irritation, nausea, vomiting and diarrhea.

**Inhalation:** May cause respiratory tract irritation. Exposure to dense oil mist may lead to respiratory problems.

**Carcinogenicity:** none                      **NTP:** no                      **IARC Monographs:** no                      **OSHA Regulated:**  
no

**Signs and Symptoms of Exposure:** Prolonged or repeated skin contact may cause irritation.

**Medical Conditions Generally Aggravated by Exposure:** none recognized

**Emergency and First Aid Procedures:** If ingested, DO NOT induce vomiting. If spontaneous vomiting occurs, monitor the subject for breathing difficulty. Get immediate medical attention. If inhaled, remove affected person from exposure to mists. For eye contact, flush the eyes immediately with large amounts of water with the eyelids held away from the eye to ensure thorough rinsing. For skin contact, remove by washing with soap and water. Get medical attention if irritation persists.

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### Control Measures

**Respiratory Protection:** Use MSHA/NIOSH approved supplied-air respiratory protection if occupational exposure limits are exceeded.

**Ventilation:** Use local exhaust to capture vapor, mists, or fumes if necessary.

**Protective Gloves:** Use chemical-resistant gloves to prevent prolonged or repeated skin contact.

**Eye Protection:** Wear splash goggles or safety shield to prevent eye contact. Eye baths should be readily available in the area of handling R-Temp fluid.

**Other Protective Clothing or Equipment:** Wear chemical-resistant apron or other impervious clothing to avoid prolonged or repeated skin contact.

**Work/Hygenic Practices:** Wash with soap and water after contact. Avoid exposure to mists.

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### Precautions for Safe Handling and Use

**Steps to be Taken in Case Material is Released or Spilled:** Stop flow or eliminate source of leakage. Eliminate all sources of ignition. Absorb with an oil absorbent material. No special hazards except under mist or spray conditions. A spill or release to navigable waters must be reported immediately to the National Response Center (800-424-8802). Spills may be reportable to state or local agencies.

**Waste Disposal:** For recycling, consult with local used oil recyclers. R-Temp fluid when recycled, discarded or disposed of is used oil per 40 CFR 279. R-Temp fluid is not a hazardous waste per 40 CFR 261. R-Temp fluid from retrofilled electrical equipment, by virtue of contamination from residues of earlier fluid(s), may qualify as a hazardous waste per 40 CFR 261.

**Precautions to be Taken in Handling and Storage:** Avoid extremes of temperature in storage. Store R-Temp fluid in labeled, tightly closed containers in cool, dry, isolated and well ventilated areas, away from sources of ignition or heat. To maintain fluid for intended use as an electrical insulating fluid, eliminate exposure to oxygen and moisture.

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This Material Safety Data Sheet has been prepared in order to help the users of R-Temp fluid. The data contained herein is accurate as of the date of preparation of this sheet.

Effective Date: January 13, 2005



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