

Material Safety Data Sheet

Envirotemp[®] FR3[™] Fluid

Cooper Power Systems
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Emergency Telephone: (262) 547-1251
Product Information: www.cooperpower.com

Hazardous Ingredients/Identity Information

Envirotemp FR3 fluid is a non-hazardous seed-based oil of proprietary formulation. The material belongs generically to a class of compounds referred to as lipids.

Exposure Limits:	TWA (mg/m ³)	
	OSHA PEL	ACGIH TLV
vegetable oil mists	--	10
vegetable oil mists: total dust	15	--
vegetable oil mists: respirable fraction	5	--

Hazardous Materials Identification System (HMIS):

Health	Flammability*	Reactivity*
0	1	0

* Interchangeable with NFPA 704 ratings.

Physical/Chemical Characteristics

Boiling Point: >360 °C	Specific Gravity (H₂O = 1): 0.92
Vapor Pressure (mm Hg): <0.01 @ 20 °C	Pour Point: -18 to -21 °C
Vapor Density (air = 1): n/a	Evaporation Rate (butyl acetate = 1): nil
Solubility in water: negligible; <0.1%	Volatile Organic Compounds (g/L): <0.001
Appearance and odor: odorless clear light-green liquid	

Fire and Explosion Hazard Data

Flash Point (ASTM D-92): 330 °C (typical)	Lower Explosion Limit: n.d.
Flammable Limits: n.d.	Upper Explosion Limit: n.d.
Extinguishing Media: CO ₂ , dry chemical foam	
Special Fire Fighting Procedures: Use MSHA/NIOSH approved self-contained breathing apparatus with full facemask 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 source 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. Class III B liquid. Permeated fabrics might, under certain conditions, spontaneously combust.	

Reactivity Data

Stability: Envirotemp FR3 fluid is stable under normal conditions of use.

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

Hazardous Decomposition or By-Products: carbon monoxide, carbon dioxide

Hazardous Polymerization: will not occur

Health Hazard Data

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

Skin: non-irritating

Ingestion: May cause gastric system irritation.

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: none known

Medical Conditions Generally Aggravated by Exposure: none known

Emergency and First Aid Procedures: 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.

Control Measures

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

Ventilation: General mechanical ventilation can be used to control or reduce airborne concentrations of oil.

Protective Gloves: Gloves are recommended when fluid temperature is above ambient conditions.

Eye Protection: Wear safety glasses or goggles to prevent eye contact. Eye baths should be readily available in the area of handling Envirotemp FR3 fluid.

Other Protective Clothing or Equipment: Wear coveralls to minimize skin exposure.

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

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: Recycling -- consult with local used oil or fat recyclers. Envirotemp FR3 fluid itself, when discarded or disposed of, is not listed as a hazardous waste per 40 CFR 261. Envirotemp FR3 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. Envirotemp FR3 fluid itself or from retrofilled electrical equipment, when discarded or disposed of, is not a used oil per 40 CFR 279.

Precautions to be Taken in Handling and Storage: Avoid extremes of temperature in storage. Store Envirotemp FR3 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.

This Material Safety Data Sheet has been prepared in order to help the users of Envirotemp FR3 fluid. The data contained herein is accurate as of the date of preparation of this sheet.

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