

Prepared according to 29CFR 1910.1200

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Section 1 **Product Name and Information**

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**Product (Trade Name and Synonyms): CPTherm™ F-M45**

CAS Number: Not applicable for mixtures.

Generic Chemical Name: Mixture.

Product Type: Multipurpose.

Transportation Emergency Phone No: (CHEMTREC) 1-800-424-9300

Outside the U.S. (703) 527-3887

MSDS Number: 12295065-3711423-708480-811103

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Section 2 **Components and Hazard Statement**

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Hazardous Ingredients:

- Potassium formate (CAS # 590-29-4): 40-49.9 wt%
- Sodium nitrite (CAS # 7632-00-0): <0.8%

Exposure Guidelines (OSHA: TWA, STEL; ACGIH: TWA, STEL; Other: TWA, STEL; Carcinogen): None established for all chemicals.

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Section 3 **Hazard Identification**

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Principal Hazards: Caution

- May Cause Eye Irritation.
- May Cause Skin Irritation.

*See Section 11 for complete health hazard information.*

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Section 4 **First Aid Measures**

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Oral: DO NOT INDUCE VOMITING. If conscious, give 2 glasses of water. Get immediate medical attention.

Eyes: Flush immediately with water for at least 15 minutes. Get immediate medical attention.

Skin: Wash with soap and water. Remove contaminated clothing. Get medical attention if irritation develops. Launder contaminated clothing before reuse.

Inhalation: Remove exposed person to fresh air if adverse effects are observed.

Additional Information: Note to physician: Treat symptomatically.

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Section 5 **Fire Fighting Measures**

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Flash Point: Not applicable.

Extinguishing Media: Not applicable.

Firefighting Procedures: Not applicable.

Unusual Fire and Explosion Hazards: Material will not burn.

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Section 6 **Accidental Release Measures**

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Spill Procedures: Personal Protective Equipment must be worn, see Personal Protection Section for PPE recommendations. Prevent entry into sewers and waterways. Pick up free liquid for recycle and/or disposal. Residual liquid can be absorbed on inert material. Check under Transportation and Labeling (DOT/CERCLA) and Other Regulatory Information Section (SARA) for hazardous substances to determine reporting requirements for spills.

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Section 7 **Handling and Storage**

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Maximum Pumping Temperature: Not determined.

Maximum Handling Temperature: Not determined.

Handling Procedures: Keep containers closed when not in use. Wash thoroughly after handling. Empty container contains product residue which may exhibit hazards of product.

Maximum Storage Temperature: Not determined.

Storage Procedures: No special storage precautions required.

Loading Temperature: Not determined.

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Section 8

**Exposure Controls/Personal Protection**

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Other Exposure Limits: See Hazardous Ingredients Section for any applicable exposure limits for components.

Ventilation Procedures: Use local exhaust ventilation to control mists or vapors.

Gloves Procedures: Use nitrile or neoprene gloves.

Eye Protection: Chemical goggles or face shield.

Respiratory Protection: Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.

Clothing Recommendation: Long sleeve shirt is recommended.

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Section 9

**Physical and Chemical Properties**

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Flash Point: Not applicable.

Upper Flammable Limit: Not applicable.

Lower Flammable Limit: Not applicable.

Auto Ignition Point: Not applicable.

Explosion Data: Material does not have explosive properties.

Vapor Pressure: Not determined.

pH: 10.30

Specific Gravity: 1.31 @ 20°C

Water Solubility: Soluble.

Percent Volatile: Not determined.

Percent VOC: Not determined.

Vapor Density: Not determined.

Evaporation Rate: Not determined.

Odor: None.

Appearance: Light colored liquid.

Viscosity (cSt @ 40°C): 1.4

Odor Threshold: Not determined.

Boiling Point: Not determined.

Pour Point Temperature: Not determined.

Melting/Freezing Point: -44°F

*The above data are typical values and do not constitute a specification. Vapor pressure data are calculated unless otherwise noted.*

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Section 10 **Stability and Reactivity**

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Stability: Material is normally stable at moderately elevated temperatures and pressures.

Decomposition Temperature: Not determined.

Incompatibility: None known, avoid contact with reactive chemicals.

Polymerization: Will not occur.

Thermal Decomposition: Thermal decomposition and combustion are not expected to occur except under extreme conditions.

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Section 11 **Toxicological Information**

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ACUTE EXPOSURE

Oral Toxicity: The LD50 in rats is > 5000 mg/kg, based on data from components or similar materials. Swallowing this material causes irritation of mouth, esophagus and stomach, with nausea, vomiting, diarrhea and abdominal pain.

Eye Irritation: Weak to moderate eye irritant. Does not meet Canadian D2B or EU R36 criteria. Based on data from components and similar materials.

Skin Irritation: May cause skin irritation. Based on components or similar materials. Prolonged or repeated contact may cause dermatitis.

Dermal Toxicity: The follow estimated LD 50 is based on incomplete data on components. The LD50 in rabbits is > 2000 mg/Kg. Based on data from components or similar materials.

Inhalation Toxicity: No data available to indicate product or components may be a toxic inhalation hazard.

Respiratory Irritation: No data available to indicate product or components may cause respiratory irritation under normal workplace conditions and good industrial hygiene practices.

Dermal Sensitization: No data available to indicate product or components may be a skin sensitizer.

Inhalation Sensitization: No data available to indicate product or components may be respiratory sensitizers.

## CHRONIC EXPOSURE

Chronic Toxicity: No data available to indicate product or components present at greater than 1% are chronic health hazards.

Carcinogenicity: No data available to indicate any components present at greater than 0.1% may present a carcinogenic hazard.

Mutagenicity: No data available to indicate product or and components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive Toxicity: No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.

Teratogenicity: No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.

## ADDITIONAL INFORMATION

Other: No other health hazards known.

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Section 12

### **Ecological Information**

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## ENVIRONMENTAL TOXICITY

Freshwater Fish Toxicity: The acute EC50 for freshwater fish is 100-1000 ppm based on component data.

Freshwater Invertebrates Toxicity: Not determined.

Algal Inhibition: Not determined.

Saltwater Fish Toxicity: Not determined.

Saltwater Invertebrates Toxicity: Not determined.

Bacteria Toxicity: Not determined.

Miscellaneous Toxicity: Not determined.

## ENVIRONMENTAL FATE

Biodegradation: At least 75% of the components in this product show rapid biodegradation based on OECD 301-type test data.

Bioaccumulation: 25% or greater of the components display no potential to bioconcentrate.

Soil Mobility: Not determined.

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Section 13 **Disposal Consideration**

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Waste Disposal: This material, if discarded, is not a hazardous waste under RCRA Regulation 40 CFR 261.

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Section 14 **Transportation Information**

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ICAO/IATA: Not regulated.

IMDG (Ambient): Not regulated.

IMDG (Elevated): DO NOT TRANSPORT – ADDITIONAL INFORMATION REQUIRED.

IMDG EMS: Not applicable.

INDG MFAG: Not applicable.

IMO Marine Bulk: DO NOT TRANSPORT – ADDITIONAL INFORMATION REQUIRED.

USCG Compatibility: Not determined.

U.S. DOT Bulk (Ambient): Environmentally hazardous substance liquid, n.o.s. (Sodium nitrite), Class 9, UN3082, PG III, RQ

U.S. DOT Bulk (Elevated): DO NOT TRANSPORT – ADDITIONAL INFORMATION REQUIRED.

U.S. DOT Non-Bulk: Not regulated.

DOT NAERG: 171

TDG Bulk (Ambient): Environmentally hazardous substance liquid, n.o.s. (Sodium nitrite), Class 9, UN3082, PG III, RL

TDG Non-Bulk: Not regulated.

Mexico: Not regulated.

ADR/RID (Ambient): Not regulated.

ADR/RID (Elevated): DO NOT TRANSPORT – ADDITIONAL INFORMATION REQUIRED

ADR/RID Hazard ID No.: Not applicable.

ADG (Ambient): Not regulated.

ADG (Elevated): DO NOT TRANSPORT – ADDITIONAL INFORMATION REQUIRED

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Section 15

**Regulatory Information**

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U.S. TSCA Inventory: All components of this material are on the US TSCA Inventory or are exempt.

Other TSCA Reg.: Section 5a (SODIUM NITRITE). May be subject to export notification under TSCA Section 12(b).

SARA Ext. Haz. Subst.: This product does not contain greater than 1.0% of any chemical substance on the SARA Extremely Hazardous Substance list.

SARA Section 313: This product does not contain greater than 1.0% (greater than 0.1% for carcinogenic substance) of any chemical substance listed under SARA Section 313.

TDG Regulated Limit:

Transit Reportable Quantities

Sodium nitrite: Reportable Limits RL – 1259 gallons (4765 liters)

CERCLA Hazardous Substances:

Transit Reportable Quantities

Sodium nitrite: Reportable Quantity RQ – 1145 gallons (4332 liters)

Stationary Reportable Quantities

Sodium nitrite: Reportable Quantity RQ – 1145 gallons (4332 liters)

Cal. Prop. 65: This product does not intentionally contain any chemicals known by the State of California to cause cancer and/or birth defects. Moreover, Lubrizol does not routinely analyze its products for impurities which may be such chemicals.

NSF Nonfood Compounds Registration: This product has been filed with the NSF to support HT-1 approval.

U.S. Tariff Heading Number: 3824.90.91.50

Schedule B Number: 3824.90.9160

EEC EINECS: All components are in compliance with the EC Seventh amendment Directive 92/32/EEC.

Japan METI: All components are in compliance with the Chemical Substances Control Law of Japan.

Australia: All components are in compliance with chemical notification requirements in Australia.

Canada: All components are in compliance with the Canadian Environmental Protections Act and are present on the Domestic Substance List.

Switzerland: All components are in compliance with the Environmentally Hazardous Substances Ordinance in Switzerland.

Korea: All components are in compliance in Korea.

Philippines: All components are in compliance with the Philippines Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990 (R.A. 6969)

China: This product may require notification in China.

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Section 16

**Other Information**

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US NFPA Codes:

Health: 2

Fire: 0

Reactivity: 0

Special: None established

HMIS Codes:

Health: 1

Fire: 0

Reactivity: 0

Precautionary Labels: Caution

- MAY CAUSE EYE IRRITATION
- MAY CAUSE SKIN IRRITATION

The information in this material safety data sheet should be provided to all who use, handle, store, transport or are otherwise exposed to this product. We believe the information in this document to be reliable and up to date as of the date of publication, but makes no guarantee that it is.

Date Revised: 3/04