

1/4/2011

COLD FIRE™ Fire Suppressing Agent

Cold Fire™ is an environmentally friendly fire suppressing agent, specially designed to extinguish Class A, B and D fires. Cold Fire™ has a rapid cooling effect, which provides rapid extinguishment, prevention of re-ignition, and the encapsulation of hydrocarbons. The product is safe to store, handle and use, leaves virtually no residue, is environmentally friendly, non-toxic, non-corrosive, and biodegradable.

| Capabilities | |
|--------------------------------|--|
| Fire Suppressing Power: | Quickly snuffs out fires. "Cools" burning fuel on contact. Prevents re-ignition by encapsulating fuel source. Retards smoke generation. Cools rapidly. |
| Applications: | Class A, B and D fires of all types. |
| Cleanup: | None needed. Foam layer dissipates without leaving residue. Product biodegrades rapidly. Oil molecules do not form a tight emulsion with the suppressing solution. |
| Dispersant Capability: | Low. Treated oils are not dispersed in water. |

| Characteristics | |
|---------------------------|---|
| pH: | pH of concentrate is 6.15. Neutral when diluted. |
| Flash Point: | Negligible. |
| Boiling Point: | 212°F. |
| Odor: | Mild fresh scent. Does not contain d-limonenes. Clear color. |
| Water Solubility: | Complete. |
| Shelf Life: | Indefinite when stored in closed containers between 32°F and 120°F. |
| Dilution Strength: | Use at strengths of 0.15% to 10% in any type of water. |
| Residue: | Agent layer dissipates rapidly. Product leaves no residue. |

| Environmental and Safety Considerations | |
|--|---|
| Biodegradability: | 100% in 21 days under ideal conditions. |
| Hazardous Components: | No components are listed in the NIOSH Recommendations for Occupational Health Standards, 1988, or are defined as hazardous by SARA, CERLA, or RCRA. No OSHA PEL's are established for other ingredients. |
| Handling: | Suppressor is neutral. It will remove oil from the skin and may irritate the eyes if sprayed directly into them. When handling bulk concentrate, eye protection, gloves, and impervious clothing should be worn when there is danger of splashing, prolonged exposure to vapor, or prolonged skin contact, as with all chemicals. |
| Disposal: | Suppressant itself may be disposed through municipal systems. |

1/4/2011

**MATERIAL SAFETY DATA SHEET
COLD FIRE™**

SECTION I - IDENTIFICATION

Manufacturer: FIREFREEZE Worldwide, Incorporated
Address: 272 Route 46, Rockaway, N.J. 07866
Phone: (973) 627-0722 **Fax:** (973) 627-2982
Date Prepared: JANUARY 4, 2011 **Formulation #:** JG302
Trade Name: Cold Fire 302
Product: Class A:B:D fire suppressing agent

SECTION II - INGREDIENTS AND HAZARD CLASSIFICATION

Components are classified trade secret. No components are believed to be hazardous, or listed in the NIOSH Recommendations for Occupational Safety and Health Standards, 1988, or are listed as hazardous by SARA, CERCLA, or RCRA. No OSHA PEL's are established for any of the other ingredients.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: 212°F. **Vapor Pressure (mm Hg):** Same as water.
Solubility in water: 100% **Specific Gravity:** 1.02 @ 60°F.
pH: 6.15 (concentrate) Neutral when diluted.
Appearance and Odor: Clear liquid, fresh smell.

SECTION IV - FIRE AND EXPLOSION DATA

Flash Point: Not applicable **Flammable Limits:** Non-flammable.
LEL: Not applicable. **UEL:** Not applicable.
Extinguishing Media: Not applicable.
Special Fire Fighting Procedures: None.
Unusual Fire and Explosion Hazards: None.

SECTION V - REACTIVITY DATA

Stability: Stable. **Incompatibility:** None.
Hazardous Decomposition Products: Carbon monoxide and carbon dioxide.
Hazardous Polymerization: Will not occur.

SECTION VI - HEALTH HAZARD DATA

Exposure Limits

OSHA PEL: Not established. **ACGIH TLV:** Not established.

Routes of Entry

Inhalation: Yes **Skin:** Yes **Ingestion:** Yes

Signs and Symptoms of Exposure

Skin: Negligible hazard. Not a primary skin irritant. Liquid is neutral with pH 7.5. Dermal irritation testing for 72 hours on albino rabbits showed no erythema and no edema.

Eyes: Not considered to be a primary ocular irritant.

Inhalation: Negligible.

Ingestion: Not considered to be orally toxic.

Table Continued on Next Page

1/4/2011

First Aid

Eyes: Immediately flush eyes with water.

Skin: Rinse with water.

Inhalation: Negligible. Remove to fresh air.

Ingestion: Drink water.

Carcinogenicity

NTP? No **IARC?** No **OSHA Regulated?** No

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Spill or Leak Procedures

Rinse affected area with water.

Waste Disposal Method

Dispose as non-hazardous waste in accordance with local regulations.

Storage and Handling Precautions

Store in temperatures from 32°F to 120°F in closed containers to prevent evaporation and deterioration. Freezing will not damage material as long as container remains intact.

Other Precautions

Although components have low hazard levels, the product will remove oils from the skin like the common soap. Avoid prolonged skin contact.

SECTION VIII - CONTROL MEASURES

Respiratory Protection

Not required.

Ventilation

Under ordinary conditions of use for its intended purpose, no special ventilation is required.

Protective Gloves

Wear if there is prolonged skin contact.

Eye Protection

Wear if needed to prevent reasonable probability of eye contact.

SECTION IX - HAZARD CLASSIFICATION

IMO Hazard Class and Number: Non-hazardous.

UN Number: Not applicable.

US DOT Hazard Class: Not regulated by DOT.

US DOT Identification Number: Not applicable.

SECTION X - REGULATORY INFORMATION

EPA SNAP: Significantly New Alternative Policy Program Listed. Cold Fire™ is listed by the EPA as a substitute for Halon 1211.

HMIS Rating: Health: 0 Flammability: 0 Reactivity: 0

Table Continued on Next Page

1/4/2011

SECTION XI- ENVIRONMENTAL DATA

Biodegradability: Product is 100% biodegradable in an active environment within 21 days.

Toxicity: In accordance with U.S. EPA Office of Pollution Prevention and Toxics criteria for ranking the acute toxicity of chemicals in the aquatic environment, ColdFire 302 is considered to be of low concern.

-96 hour acute toxicity versus freshwater alga (*Selenastrum capricornutum*) IAW 40 CFR 797.1050 showed ColdFire 302 was algicidal at concentrations above 750 ppm.

-96 hour acute toxicity versus juvenile rainbow trout (*Oncorhynchus mykiss*) IAW 49 CFR 797.1400 showed an LC50 of 105 ppm.

The information presented in this MSDS is believed to be factual. However, nothing contained in this information is to be taken as a warranty of any kind by FIREFREEZE Worldwide, Inc. The user should review any recommendations, in the specific context of the intended use, to determine whether they are appropriate.