

MATERIAL SAFETY DATA SHEET

SECTION I - PRODUCT IDENTIFICATION

Product identifier: F-500, Multi-Purpose Encapsulating Agent

Product use: Fire fighting agent.

Chemical family: Surfactant blend

Supplier name and address:

Refer to Manufacturer

Manufacturer name and address:

Hazard Control Technologies, Inc.

150 Walter Way

Fayetteville. GA 30214

Regular Telephone #: (770) 719-5112

Emergency 24-hour Telephone #: N/Av

WHMIS CLASS: D2B

SECTION II - HAZARDOUS INGREDIENTS

| <u>Ingredients</u> | <u>CAS #</u> | <u>% (wt.)</u> | <u>LC₅₀, ppm (Rat, ihl.)</u> | <u>LD₅₀, mg/kg (Rat, oral)</u> |
|---|---------------------------------------|----------------|---|---|
| Nitritotrisethanol aliphatic soap | Trade Secret | 1-4.5% | N/A | N/A |
| Alkyl ether amine reaction with aliphatic acids | Not applicable Mixture/Preparation | 25-55% | N/A | N/A |
| Linear aliphatic alcohols | Not applicable Mixture/Preparation | 3-10% | N/A | N/A |

SECTION III - PHYSICAL DATA

Physical state: Liquid.

Odour and appearance: Mild odour, amber colour.

Odour threshold: N/Av

Specific gravity: 0.98-1.00

Coefficient of water/oil distribution: N/Av

Vapour pressure (mm Hg): N/Av

Boiling point: 121.1°C (250°F)

Freezing point: -8.3°C (17°F)

Min. Pour Point: -8.3°C (17°F)

pH: 6.9-7.1

Vapour density (Air=1.0): N/Av

Evaporation rate (water=1.0): <1

Volatiles, %: N/Av

Solubility in water: Complete

Viscosity (cP @ 22°C): 85

SECTION IV - FIRE AND EXPLOSION DATA

Conditions of flammability: Non-flammable liquid.

Means of extinction: Non-flammable liquid.

Sensitivity to mechanical impact/static discharge: Not sensitive to mechanical impact or static discharge.

Flash point (Method): Not applicable

Upper flammable limits (% by volume): Not applicable

Lower flammable limits (% by volume): Not applicable

Auto-ignition temperature: Not applicable

Special fire fighting procedures: This product is a fire-fighting agent.

Hazardous combustion products: There are no hazardous combustion products.

SECTION V - REACTIVITY DATA

Stability: Stable. Hazardous polymerization will not occur.

Incompatible materials: Strong oxidizers.

Conditions of reactivity: None known.

Hazardous decomposition products: None known.

SECTION VI - TOXICOLOGICAL PROPERTIES

Routes of exposure and acute/chronic effects

Exposure limits: ACGIH-TLV: Not established.

Inhalation: Vapours, which may form at elevated temperatures, may irritate the respiratory tract.

Skin: Non-skin sensitizing (OECD 406).

Eyes: Vapours, which may be formed at elevated temperatures, may irritate the eyes.

Ingestion/Oral: LD₅₀ Rat > 5g/kg. (TIWET Project No. 09440.5) Non-toxic May cause gastrointestinal irritation/diarrhea.

Chronic effects:

Carcinogenicity: No ingredient listed as a carcinogen by IARC or ACGIH.

Teratogenicity, mutagenicity, other reproductive effects: Non-mutagenic (OECD Guideline Section 471, Paris, 1997).

Sensitization to material: Non-skin sensitizing (OECD 406).

Synergistic materials: None known.

SECTION VII - FIRST AID

Inhalation: If respiratory irritation occurs, immediately move the affected person into fresh air. Keep at rest until breathing is normal. If condition persists seek medical attention.

Skin: Wash exposed skin area with water; use soap if available. Remove contaminated clothing, including shoes. If irritation persists, seek medical attention.

Eyes: Immediately flush eyes with large amounts of water for at least 15 minutes. If irritation persists seek medical attention.

Ingestion: DO NOT induce vomiting. Dilute stomach contents; give plenty of water or milk. Keep warm and quiet. If condition persists seek medical attention. DO NOT attempt to give anything by mouth to an unconscious person.

SECTION VIII - PREVENTIVE MEASURES

Spill, leak or release: Prevent additional discharge of material, if possible to do so without hazard. Implement cleanup procedures. Contain spilled liquid with sand, clay, earth or suitable absorbent.

Waste disposal: For disposal instructions, contact your provincial and local environmental authorities. Always make sure disposal is in compliance with federal, provincial and local environmental regulations.

PROTECTIVE EQUIPMENT

Respiratory protection: Typically respiratory protection is not required under normal conditions of use. If vapors reach bothersome levels, and engineering work practices or other means of exposure reduction are not adequate, provide ventilation or wear NIOSH-approved respirator equipped with organic vapor cartridges.

Engineering controls: Ventilation should be provided to control workers exposure.

Protective gloves: Chemical resistant gloves.

Eye protection: Splash-proof goggles.

Other protective equipment: Wear body-covering work clothes, such as long-sleeved work shirt and pants, to protect against skin contact.

STORAGE AND HANDLING

Handling procedures and equipment: Keep containers closed. Handle and open containers with care. Protect material from direct sunlight. This material is not a static accumulator, but use proper grounding procedures. Empty product containers may contain product residue. Do NOT reuse empty containers without commercial cleaning or reconditioning.

Storage instructions: Store in a cool, well-ventilated place. Storage temperatures; 1.7-54.4°C (35-130°F)

Special shipping instructions: TDG – Not regulated.

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Additional notes or references:

Abbreviations:

| | |
|--------|---|
| ACGIH: | American Conference of Governmental Industrial Hygienists |
| IARC: | International Agency for Research on Cancer |
| N/Ap | Not applicable |
| N/Av: | Not available |
| NIOSH: | National Institute for Occupational Safety and Health |
| TDG: | Transportation of Dangerous Goods Act |
| TLV: | Threshold Limit Values |

References:

1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 1998.
2. International Agency for Research on Cancer Monographs, Supplement 7, 1988.
3. Canadian Centre for Occupational Health and Safety. CHEMINFO database.
4. Material Safety Data Sheets from manufacturer.
5. N. Irving Sax. Dangerous Properties of Industrial Materials, Seventh Edition.
6. TIWET Project 09440. Clemson University, July 1007

SECTION IX - PREPARATION INFORMATION

Prepared by: Hazard Control Technologies, Inc.

Telephone #: (770) 719-5112

Preparation date: July 25, 2012