

# 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>LC<sub>50</sub>, ppm (Rat, ihl.)</u>	<u>LD<sub>50</sub>, mg/kg (Rat, oral)</u>
Nitroltrisethanol 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:** LD<sub>50</sub> 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, 2015