

# MATERIAL SAFETY DATA SHEET

## SECTION I - PRODUCT IDENTIFICATION

**Product identifier:** Pinnacle Class B AR-AFFF 3x3% Concentrate

**Product use:** Firefighting 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

## SECTION II - HAZARDOUS INGREDIENTS

<u>Ingredients</u>	<u>CAS #</u>	<u>% (wt.)</u>	<u>LC<sub>50</sub>, ppm (Rat, inh.)</u>	<u>LD<sub>50</sub>, mg/kg (Rat, oral)</u>
Diethylene Glycol Butyl Ether	112-34-5	4-12	N/Av	N/Av
Hydrocarbons surfactants	Proprietary Chemical Blend	5-10	N/Av	N/Av
Polyfluoroalkyl Betaine	64-17-5	< 5	N/Av	N/Av
Polymer	11138-66-2	< 5	N/Av	N/Av

## SECTION III - PHYSICAL DATA

**Physical state:** Liquid.

**Odour and appearance:** Organic odour, clear amber color.

**Odour threshold:** N/Av

**Specific gravity:** 1.00-1.03

**Coefficient of water/oil distribution:** N/Av

**Vapour pressure (mm Hg):** N/Av

**Boiling point:** > 100°C (> 212°F)

**Freezing point:** -7°C (19.4°F)

**pH:** 6.5-8.5

**Vapour density (Air=1.0):** N/Av

**Evaporation rate (water=1.0):** < 1

**Volatiles, %:** 100

**Solubility in water:** 100%, Complete

**Viscosity (@ 22°C):** 2700 cP

## SECTION IV - FIRE AND EXPLOSION DATA

**Conditions of flammability:** N/Av

**Means of extinction:** Product is a firefighting extinguishing agent. Product is a non-flammable liquid. If combustion occurs, apply water to extinguish.

**Sensitivity to mechanical impact/static discharge:** Reactive Metals, any materials reactive with water and live electrical connections.

**Flash point (Method):** N/Av

**Upper flammable limits (% by volume):** N/Av

**Lower flammable limits (% by volume):** N/Av

**Auto-ignition temperature:** N/Av

**Special firefighting procedures:** Product is a firefighting extinguishing agent. Apply water as necessary.

**Hazardous combustion products:** None identified

## SECTION V - REACTIVITY DATA

**Stability:** Stable. Hazardous polymerization will not occur.

**Incompatible materials:** Strong oxidizers.

**Conditions of reactivity:** Do not mix different types and brands of foam concentrate in storage.

**Hazardous decomposition products:** None identified.

## SECTION VI - TOXICOLOGICAL PROPERTIES

### \*\*\*Routes of exposure and acute/chronic effects\*\*\*

**Inhalation:** Inhalation is not anticipated to be a problem.

**Skin:** May cause mild transient irritation

**Eyes:** May cause mild transient irritation

**Ingestion/Oral:** Low oral risk when used as intended

**Chronic effects:**

Delayed kidney injury, possible liver damage.

*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:** Irritation of the eyes, skin and mucous membranes

**Synergistic materials:** None known.

## SECTION VII - FIRST AID

**Eye Contact:** Flush with large amounts of water; if irritation persists, seek medical attention.

**Skin Contact:** Wash with soap and water; if irritation persists, seek medical attention.

**Inhalation:** Remove victim to fresh air. Seek medical attention if discomfort continues.

**Ingestion:** If patient is conscious, give large amounts of water and induce vomiting. Seek medical help.

## SECTION VIII - PREVENTIVE MEASURES

### **Indoor Spill**

Rinse floor thoroughly with water as material is slippery. Prevent material from reaching sewers or waterways to avoid nuisance foaming.

### **Land Spill**

Recover as much as possible of Pinnacle Class B AR-AFFF 3x3% Concentrate and discard material in closed labeled container for disposal. Dispose of in accordance with local, state and federal regulations.

**Water Spill**

Dike or contain any spill. Avoid direct discharge into any body of water. Diluted product may be acceptable in municipal wastewater treatment plants. Consult local authorities. Dispose of in accordance with local, state and federal regulations.

**\*\*\*PROTECTIVE EQUIPMENT\*\*\***

**Exposure Controls:** Ventilation should be provided to control worker exposures and prevent health risk.

**Personal Protection:** For open systems with good ventilation and where contact is likely, wear long sleeves, chemical resistant gloves, and chemical goggles. In confined spaces, where contact may occur, wear in addition to the above, rubber boots and 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. Eye wash and safety showers are good safety practice as well.

**\*\*\*STORAGE AND HANDLING\*\*\***

**Storage Temperature:** 20°F to + 122°F (-6.7°C to + 50°C)

**Storage/Transport Pressure, mmHg:** Atmospheric

**Storage and Handling:** Store in original container and keep container closed. Handle and open containers with care. Store in a cool, well ventilated place away from incompatible materials. Protect material from direct sunlight. Do NOT pressurize, cut, heat, or weld containers. Do NOT reuse empty containers without commercial cleaning or reconditioning. Follow the instructions as mentioned on the container. Do not mix different types and brands of concentrates as they may be incompatible

**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.

**SECTION IX - PREPARATION INFORMATION**

**Prepared by:** Hazard Control Technologies, Inc.

**Telephone #:** (770) 719-5112

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