



## DATA SHEET #NFC110

# AER-O-FOAM 3% COLD FOAM Protein Foam Concentrate

### Description

Aer-O-Foam® 3% Cold Foam is a superior quality protein based foam concentrate used at 3% concentration to extinguish fires involving hydrocarbon fuels. Aer-O-Foam 3% Cold Foam effects extinguishment in two ways. The foam blanket excludes oxygen from the fuel's surface, and the water in the foam provides cooling.

### Features

- Stable long-lasting foam blanket provides excellent burnback resistance.
- Suitable for use with fresh or sea water.
- Compatible with standard proportioning and air aspirating foam making equipment.
- Suitable for use with foam compatible dry powder extinguishing agents.
- Minimum usable temperature -20°F(-29°C)

Aer-O-Foam 3% Cold Foam is manufactured utilizing a unique process which produces unmatched quality hydrolyzed protein to form the foundation for the concentrate formulation. The protein base provides a stable, long-lasting foam blanket highly resistive to the effects of heat. This prevents reignition and enhances burnback resistance.

Aer-O-Foam 3% Cold Foam concentrate is generally suitable for use with most types of 3% proportioning systems and venturi type proportioners (eductors). For more information on these devices, consult National Foam.

### Applications

Aer-O-Foam 3% Cold Foam is used in fire suppression systems and manual applications to fight fires involving hydrocarbon fuels such as crude oil, gasoline, and fuel oils. It is not suitable for use on polar solvents or water miscible fuels such as alcohols, ketones, esters, and ethers. Typical storage tank systems include surface (topside) application. It is not suitable for subsurface application. Other uses include loading racks, docks, process areas marine tankers, spills, etc. For best performance protein foam concentrates should be used with aspirating nozzles and foam making equipment.

### Typical Physical Properties

Appearance .....	Dark Brown Color
Specific Gravity at 68°F(20°C).....	1.11
pH.....	7.3
Viscosity at 68°F(20°C) .....	21.0 csk
Freezing Point .....	-55°F(-48°C)
Minimum Usable Temperature .....	-20°F(-29°C)
Maximum Usable Temperature .....	120°F(49°C)

### Storage and Handling

Aer-O-Foam 3% Cold Foam is ideally stored in its original shipping container or in tanks or other containers which have been designed for such foam storage. Recommended construction materials are carbon steel, high density cross linked polyethylene, or reinforced fiberglass polyester (isophthalic polyester resin) with a vinyl ester resin internal layer coating (50-100 mils).

Foam concentrates are subject to evaporation which accelerates when the product is exposed to air. Storage tanks should be sealed and fitted with a pressure vacuum vent to prevent free exchange of air. The recommended storage environment is with the UL Listed temperature range of -20°F to 120°F (-29°C to 49°C).

It is recommended that Aer-O-Foam 3% Cold Foam not be mixed with any other type of foam concentrate in long term storage. Such mixing could lead to chemical changes in the product and a possible reduction in or loss of firefighting capability. Most expanded foams are compatible for side-by-side application during an incident.

Aer-O-Foam 3% Cold Foam is suitable for use in combination with foam compatible dry chemical extinguishing agents.

### Shelf Life, Inspection, and Testing

The shelf life of any foam concentrate is maximized by proper storage conditions and maintenance. Factors affecting shelf life are wide temperature changes, extreme high or low temperatures, evaporation, dilution, and contamination by foreign materials. Properly stored Aer-O-Foam 3% Cold Foam has been tested and shown no significant loss of firefighting performance, even after 25 years.

Annual testing of all firefighting foam is recommended by the National Fire Protection Association (NFPA). National Foam provides a Technical Service Program to conduct such tests.

**Environmental and Toxicological Information**

Aer-O-Foam 3% Cold Foam is biodegradable. However, as with any substance, care should be taken to prevent discharge from entering ground water surface water, or storm drains. With advance notice, Aer-O-Foam 3% Cold Foam can be treated by local biological sewage treatment systems. Since facilities vary widely by location, disposal should be made in accordance with federal, state and local regulations.

The biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) of Aer-O-Foam 3% Cold Foam are as follows:

BOD<sub>5</sub> 223,000 mg/kg  
 COD 1,030,000 mg/kg

Results of Tests for acute oral toxicity, primary skin irritation and primary eye irritation have proved negative. Repeated skin contact will remove oils from the skin and cause dryness. Users are advised to wear protective equipment.

If Aer-O-Foam 3% Cold Foam enters the eyes, flush them well with water and seek immediate medical attention. For further details, see the Aer-O-Foam 3% Cold Foam Material Safety Data Sheet.

**Ordering Information**

CONTAINER	SHIPPING WEIGHT	PART NUMBER
<b>5-Gallon Pails</b>		
(19 litres)	49 lb. (22.3 kg)	1110-5340-6
<b>55-Gallon Drums</b>		
(208 litres)	531 lb. (241.4 kg)	1110-5481-6
<b>275-Gallon IBC Reusable Tote Tank</b>		
(1041 litres)	2691 lb. (1223.2 kg)	1110-5725-6
<b>Bulk</b>	9.25 lb./gal.(1.11 kg/l)	1110-5001-6

Palletizing of pails and drums is available upon request.

**SHIPPING CUBE**

5-Gallon Pail .....	1.13 cu. ft. (0.032 cu. m)
55-Gallon Drum .....	11.51 cu. ft. (0.326 cu. m)
275-Gallon IBC Tote Tank ....	51.11 cu. ft. (1.1061 cu. m)

This information is only a general guideline. The company reserves the right to change any portion of this information without notice. Terms and conditions of sale apply and are available on request.

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