VIKING

TECHNICAL DATA

VIKING FOAM
VF3NLAFFF

1. PRODUCT NAME

3% Industrial Grade AFFF Foam Concentrate
Viking Part Number: VF3NLAFFF

2a. MANUFACTURED BY

NATIONAL FOAM
150 Gordon Drive
P O Box 695
Exton PA 19341

2b. MANUFACTURED FOR

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3. DESCRIPTION

Viking VF3NLAFFF 3% AFFF is a synthetic fire fighting foam concentrate designed for use on non-polar, hydrocarbon hazards. When proportioned with water and applied with conventional foam or water/fog equipment, Viking VF3NLAFFF 3% AFFF provides excellent control and extinguishment of Class B fires by spreading a vapor-sealing film over the liquid fuel. This vapor seal inhibits reflash even when the foam blanket is ruptured, and it also allows the product to be used to secure non-ignited spills. Viking VF3NLAFFF 3% AFFF provides excellent penetrating and wetting qualities when used on Class A fires. This is important when extinguishing deep-seated fires in wood, paper, rubber tires, and other ordinary combustibles.

4. APPROVALS

- U.L. Listed
- F.M. Approved

5. TYPICAL PROPERTIES

(Not for specification purposes.)
Nominal use concentration: 3%
Specific gravity @
77°F (25°C): 1.06
Viscosity @
77°F (25°C): 7.0 centistokes
Minimum use temperature:
-20°F (-29°C)
Maximum use temperature:
120°F (49°C)
Freeze point: -70°F (-57°C)
pH @ 77°F (25°C): 8.0
Appearance: Straw Amber color

6. APPLICATIONS

Viking VF3NLAFFF 3% AFFF can be used with conventional foam equipment with fresh, sea, or brackish water. Self-educting foam nozzles and foam nozzles with in-line eductors are among the most common types of hardware for application.
In addition to its use in aspirating foam equipment, Viking VF3NLAFFF 3% AFFF can be dispensed effectively through non-aspirating equipment, including fog nozzles, water spray devices, and standard sprinklers. Viking VF3NLAFFF 3% AFFF is listed by UL and approved by Factory Mutual Research Corporation (FM).
Viking VF3NLAFFF 3% AFFF may be applied to fires simultaneously with dry chemical fire fighting agents because the two are compatible.

7. FEATURES

- Low energy input AFFF - requires minimal agitation
- Excellent fluidity provides rapid “knockdown”
- Suitable for use with fresh or sea water
- Compatible with standard proportioning and foam making devices
- Suitable for use with foam compatible dry powder extinguishing agents

8. STORAGE AND HANDLING

Viking VF3NLAFFF 3% 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 stainless steel (Type 304L or 316), 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 present free exchange of air. The recommended storage environment is within the UL-listed temperature range of 20°F to 120°F (-7°C to 49°C).
It is recommended that Viking VF3NLAFFF 3% 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 its firefighting capability. Most expanded foams are compatible for side-by-side application during an incident.
Viking VF3NLAFFF 3% may be stored as a 1% premixed solution using fresh water. A biocide agent should be added to prolong storage life of the premix solution.
Viking VF3NLAFFF 3% is suitable for use in combination with foam compatible dry chemical extinguishing agents.

9. SHELF LIFE

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 Viking AFFF foam concentrates have been tested and shown no significant loss of firefighting performance, even after 15 years. Annual testing of all firefighting foam is recommended by the National Fire Protection Association (NFPA).

Replaces page 817a, dated February 4, 1999. Revised part number, removed reference to 3M and added National Foam and revised page number.

10. ENVIRONMENTAL AND TOXICOLOGICAL INFORMATION

Viking VF3NLAFFF 3% 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, Viking VF3NLAFFF 3% can be treated by local biological sewage treatment systems. Since facilities vary widely by location, disposal or discharge of Viking VF3NLAFFF 3% concentrate or foam solution should be made in accordance with federal, state and local regulations.

The Biological Oxygen Demand (BOD) and Chemical Oxygen Demand (COD) of Viking VF3NLAFFF 3% are as follows:

BOD5	Concentrate 533,000 mg/kg
COD	Concentrate 1,020,000 mg/kg

Results of tests for acute oral toxicity have proved negative. Viking VF3NLAFFF 3% is a primary skin irritant. Repeated skin contact will remove oils from the skin and cause dryness. Viking VF3NLAFFF 3% is a primary eye irritant, and contact with the eyes should be avoided. Users are advised to wear protective equipment. If Viking VF3NLAFFF 3% enters the eyes, flush them well with water and seek immediate medical attention. For further details, see the Viking VF3NLAFFF 3% Material Safety Data Sheet.