



TECHNICAL DATA

**3% AFFF
MILITARY SPECIFICATION
FOAM CONCENTRATE
C306-MS**

The Viking Corporation, 210 N Industrial Park Drive, Hastings MI 49058
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Visit the Viking website for the latest edition of this technical data page.

1. DESCRIPTION

C306-MS 3% AFFF Military Specification Foam Concentrate is a specially formulated, synthetic, aqueous film forming foam concentrate. A vapor suppressing aqueous film is formed by the foam solution draining from the expanded foam blanket. It is intended for use at a proportioning rate of 3% (3 parts AFFF concentrate to 97 parts water) on Class B hydrocarbon type fuels such as gasoline, kerosene, diesel, etc. C306-MS is not intended for use on fuels which are polar solvent/water miscible such as alcohols, ketones, esters, etc.

Features

- Suitable for use with fresh or sea water
- Military products are characterized by extinguishment speed
- Suitable for use with siliconized dry chemical extinguishing agents
- U.L. recommended application rate on hydrocarbon type fuels is .10/gpm ft².
- Excellent wetting characteristics when used in combating Class A fuel type fires
- Suitable for use with both air-aspirating foam and standard water fog nozzles
- Suitable for use with deluge or closed head foam water sprinkler systems
- If inadvertently frozen, thawing will render product completely serviceable again
- Suitable for use with carbon steel, fiberglass, polyethylene or stainless steel. Chemguard Military Spec AFFF is not compatible with galvanized pipe or fittings in an undiluted form.



2. LISTINGS AND APPROVALS

UL Listed - Guide GFGV
QPL - MIL-F-24385F

3. TECHNICAL DATA

A. Typical Properties

Density	1.02 ± 0.02 g/ml
pH	7.0 — 8.5
Refractive Index	1.3655 ± 0.0020
Viscosity	3.25 ± 1.0 cSt*
Spreading Coefficient	3.0 minimum at 3% dilution
Pour Point	27 °F (-3 °C)
Freeze Point	27 °F (-3 °C)
Appearance	Pale Yellow
* Cannon-Fenske viscometer at 77 °F (25 °C)	

Aspirating type discharge devices typically generate expansion ratios between 3.5-10 to 1 when Military Spec AFFF is mixed with water at the correct ratio. Nonaspirating type devices will typically generate expansion ratios of between 2-4 to 1. Expansion ratios are dictated by the type of discharge device, flow rate and discharge pressure.

B. Ordering Information

5-Gallon Pails (19 liters)	45 lb. (20.4 kg)	Part No. F20719/5
55-Gallon Drums (208 liters)	495 lb. (224.5 kg)	Part No. F20719/55
265-Gallon Tote (1003 Liters)	2463 lbs. (1117 kg)	Part No. F20719/265

4. APPLICATIONS, STORAGE, ENVIRONMENTAL, PROPORTIONING AND DISCHARGE DEVICES

- Storage tanks (non-polar solvent type fuels only)
- Truck/Rail loading or unloading facilities
- Processing/Storage facilities
- Docks/Marine tankers
- Flammable liquid containment areas
- Mobile equipment



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A. Compatibility

Chemguard 3% AFFF C-306-MS Military Spec., is compatible with any other comparable AFFF manufactured in accordance with and conforming to all performance requirements of U.S. Military Spec Mil-F-24385F or any preceding version of this specification.

B. Storage And Shelf Life

If kept in the original unopened and airtight Chemguard supplied container and stored within the temperature range of 35°F-120°F (2°C - 49°C) a shelf life of more than 10 years can be expected. When stored in other than the manufacturers supplied container, please check with Chemguard for storage guidelines.

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 AFFF foam concentrates have been tested and shown no significant loss of fire fighting performance, even after 10 years. Annual testing of all fire fighting foam is recommended by the National Fire Protection Association (NFPA).

C. Environmental And Toxicological Information

The environmentally-mindful Chemguard 3% AFFF C306-MS Concentrate formulation contains short-chain, C-6 fluorochemicals manufactured using a telomer-based process. The telomer process produces no PFOS, and these C-6 materials do not break-down to yield PFOA. The fluorochemicals used in the concentrate meet the goals of the U.S. Environmental Protection Agency 2010/15 PFOA Stewardship Program.

D. Proportioning Devices

- Fixed or portable in-line eductors
- In-line balanced pressure and pump pressure proportioning skid
- Bladder tank balanced pressure proportioning system
- Around the pump proportioners
- Handline, air-aspirating nozzles with fixed eductor pickup tube

E. Discharge Devices

- Foam Chambers
- Air-aspirating and non air-aspirating sprinkler heads or spray nozzles. Refer to Sprinkler Listing for application rate.
- Standard water fog nozzles for handlines and monitors
- Air-aspirating foam nozzles
- Foam makers for use with either Floating Roof storage tanks or Dike/Bund protection systems
- High back pressure foam makers for subsurface base injection system (hydrocarbon type fuels only)

5. INSPECTIONS, TESTS AND MAINTENANCE

NOTICE

The owner is responsible for maintaining the fire protection system and devices in proper operating condition. For minimum maintenance and inspection requirements, refer to recognized standards such as those produced by NFPA, LPC, and VdS which describe care and maintenance of sprinkler systems. In addition, the "Authority Having Jurisdiction" may have additional maintenance, testing and inspection requirements which must be followed.

WARNING

Any system maintenance or testing that involves placing a control valve or detection system out of service may eliminate the fire protection capabilities of that system. Prior to proceeding, notify all Authorities Having Jurisdiction. Consideration should be given to employment of a fire patrol in the affected areas.

6. AVAILABILITY

The C306-MS 3% Military Spec AFFF Foam Concentrate is available through a network of domestic and international distributors. See the Viking Corp. web site for closest distributor or contact The Viking Corporation.

7. GUARANTEE

For details of warranty, refer to Viking's current list price schedule or contact Viking directly.