CHEMGUARD® CHEMATTACK Class A Foam Concentrate

Description

CHEMGUARD® CHEMATTACK foam concentrate is a low, medium, and high-expansion Class A fire control foam concentrate formulated from specialty hydrocarbon surfactants, stabilizers, and solvents. CHEMATTACK foam solution is effective on many deep-seated Class A fires such as tire, paper, coal, and structure fires.

CHEMATTACK foam concentrate can be proportioned from 0.1% to 1.0% in fresh, brackish, or sea water. Because of the extremely low proportioning rate, the foam concentrate offers outstanding economy in concentrate storage space, cost (compared to conventional 3% and 6% foam agents), and product transport requirements. For example, a 5 gal (19 L) pail of foam concentrate produces 500 gal (1,893 L) of fire control foam solution at 1% concentration and produces 5,000 gal (18,927 L) of foam solution at 0.1% concentration.

Fire suppression mechanisms and characteristics in effect when using CHEMATTACK foam concentrate include:

- Reduction of the surface tension of water, which provides superior wetting and char penetrating characteristics. This enhancement helps reduce combustibility of Class A fuels and control deep seated fires.
- Extended drain time which increases the duration of surface wetting, reducing the risk of ignition/re-ignition.
- Creation of a dense foam blanket which provides an insulating barrier between the fuel and air.
- Suppression of combustible vapors while cooling the fuel.
- Formation of a brilliant white foam that reflects heat.
- High viscosity which allows the foam to cling to vertical surfaces for increased protection.

TYPICAL PHYSIOCHEMICAL PROPERTIES AT 77 °F (25 °C)

Appearance	Pale amber liquid
Density	1.01 ± 0.01 g/ml
pH	7.0 – 8.5
Refractive Index	1.3550 minimum
Storage and Operating Range	32 °F to 120 °F (0 °C to 49 °C)
Surface Tension	
Water	66 to 76 dynes/cm
0.3% Solution	25.5 dynes/cm
0.5% Solution	26.1 dynes/cm
0.7% Solution	24.5 dynes/cm
1.0% Solution	24.8 dynes/cm

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Features

- Designed for fire suppression of Class A fuel fires
- Effective application with aspirating and non-aspirating discharge devices, compressed air foam systems (CAFS), or dropped from rotary wing aircraft

Application

CHEMATTACK foam concentrate is designed for fire suppression use on Class A fuel fires including wood, paper, coal, and rubber fires. Although designed for Class A fires, the foam solution may be effective on some, contained Class B flammable liquid fires in emergency response situations when applied by portable medium- or high-expansion devices.

CHEMATTACK foam concentrate can be used with aspirating and non-aspirating discharge devices, compressed air foam systems (CAFS), or dropped from rotary wing aircraft. Applicable suppression mechanisms and some foam solution properties may vary with the type of foam delivery device used.

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Proportioning

The recommended operational temperature range for CHEMATTACK foam concentrate is 32 °F to 120 °F (0 °C to 49 °C). It can be correctly proportioned using most conventional, properly calibrated, proportioning equipment such as:

- Direct injection
- Compressed air foam systems (CAFS)
- Around-the-pump type proportioners
- Fixed or portable in-line venturi type proportioners
- Handline nozzles with fixed eductor/pick-up tubes

At a given proportioning rate, the foam expansion may vary with the type of discharge device used.

For immediate use: The concentrate may be diluted with fresh or sea water for use as a pre-mix solution.

For delayed use: Long-term storage as a pre-mix solution is not recommended.

TYPICAL PROPORTIONING RATES FOR COMMON APPLICATIONS:

Application	Rate
Rotary Wing Aircraft	0.3% to 0.5%
Air Aspirating Devices	0.3% to 0.5%
Non-Air Aspirating Devices	0.3% to 0.6%
Compressed Air Foam Systems (CAFS)	0.1% to 0.3%
Low-/Medium-Expansion Handlines	0.3% to 1.0%

Storage and Handling

CHEMATTACK foam concentrate should be stored in the original supplied package (HDPE pails, drums, or totes) or in the equipment recommended by the manufacturer as part of the foam system. The product should be maintained within the recommended temperature range. If the concentrate freezes during transport or storage, full product serviceability can be restored upon thaw with gentle re-mixing.

Factors affecting foam concentrate's long-term effectiveness include temperature exposure and cycling, storage container characteristics, air exposure, evaporation, dilution, and contamination. The effective life of CHEMATTACK foam concentrate can be maximized through optimal storage conditions and proper handling. CHEMGUARD concentrates have demonstrated effective firefighting performance with contents stored in the original package under proper conditions for more than 10 years.

Consult with Johnson Controls Technical Services before mixing CHEMATTACK foam concentrate with other Class A foam products. Different types of foam concentrates should not be mixed together under any circumstance.

Materials of Construction Compatibility

Refer to Johnson Controls Technical Bulletin Acceptable Materials of Construction for recommendations and guidance regarding compatibility of CHEMATTACK foam concentrate with common materials of construction in the firefighting foam industry.

Ordering Information

CHEMATTACK foam concentrate is available in pails, drums, totes, or bulk shipment.

Part No.	Description	Shipping Weight
Pails		
770172	5 gal (19 L)	45 lb (20.4 kg)
Drums		
770173	55 gal (208 L)	495 lb (224.5 kg)
Totes		
770174	265 gal (1,003 L)	2,465 lb (1,118 kg)

For bulk orders, consult an account representative.

Safety Data Sheets (SDS) are available at www.chemguard.com

Note: The converted values in this document are provided for dimensional reference only and do not reflect an actual measurement.

Note: While NFF (also known as AR-SFFF) agents may be compatible with existing AFFF and/or NFF hardware, system contamination from fluorinated agents may exist if hardware and piping is not replaced upon conversion to non-fluorinated agents.