SKUM AFFF 6% EXG Concentrate

Description

SKUM AFFF 6% EXG Aqueous Film-Forming Foam Concentrate combines fluoro- and hydrocarbon-surfactant technologies to provide cost-effective fire and vapor suppression for Class B hydrocarbon fuel fires. This synthetic foam concentrate is intended for firefighting applications at 6% solution in fresh, salt, or hard water.

SKUM AFFF 6% EXG foam solution utilizes three suppression mechanisms intended for rapid fire knockdown and superior burnback resistance:

- The foam blanket blocks oxygen supply to the fuel.
- Liquid drains from the foam blanket and forms an aqueous film that suppresses fuel vapor and seals the fuel surface.
- The water content of the foam solution produces a cooling effect for additional fire suppression.

TYPICAL PHYSIOCHEMICAL PROPERTIES AT 20 °C

Appearance	Pale Yellow Liquid
Density	1.02 ± 0.02 g/ml
pH	7.0 – 8.0
Refractive Index	1.3530 minimum
Viscosity*	1.8 ± 0.5 cSt
Sediment**	≤ 0.25 %
Spreading Coefficient	3 dynes/cm minimum at 6% dilution
Pour Point	-5 °C
Freeze Point	-8 °C

*Cannon-Fenske viscometer at 20 °C

**EN 1568:2008 protocol

The SKUM AFFF 6% EXG Concentrate formulation contains short-chain, C6 fluorochemicals manufactured using a telomer-based process that does not produce PFOS.

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Application

SKUM AFFF 6% EXG Concentrate is intended for use on Class B hydrocarbon fuel fires having low water solubility such as crude oils, gasolines, diesel fuels, and aviation fuels. It is not suitable for use on polar fuels having appreciable water solubility, such as methyl and ethyl alcohol, acetone, and methyl ethyl ketone. It may also be used in conjunction with dry chemical agents to provide even greater fire suppression performance.

SKUM AFFF 6% EXG Concentrate can be ideal for fixed, semi-fixed and emergency response firefighting applications such as:

- Fuel or chemical storage tanks
- Industrial chemical and petroleum processing facilities
- Truck/rail loading and unloading facilities
- Flammable liquid containment areas
- Mobile equipment
- Aircraft hangars

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Foaming Properties

SKUM AFFF 6% EXG Concentrate may be effectively applied using most conventional foam discharge equipment at a 6% dilution with fresh, salt, or hard water. For optimum performance, water hardness should not exceed 500 ppm expressed as calcium and magnesium.

SKUM AFFF 6% EXG Concentrate requires low energy to foam and the foam solution may be applied with aspirating and non-aspirating discharge devices. Aspirating discharge devices typically produce expansion ratios from 3.5:1 to 10:1, depending on the type of device and the flow rate. Non-aspirating devices, such as handline water fog/stream nozzles or standard sprinkler heads, typically produce expansion ratios from 2:1 to 4:1. Medium-expansion discharge devices typically produce expansion ratios from 20:1 to 60:1.

TYPICAL FOAM CHARACTERISTICS* (Fresh and Salt Water)

Proportioning Rate	6%
Expansion Ratio	≥ 8
25% Drain Time (min:sec)	≥ 2:30
50% Drain Time (min:sec)	≥ 4:00

*per EN 1568-3: 2008 protocol

Proportioning

The recommended operational temperature range for SKUM AFFF 6% EXG Concentrate is -2 °C to 60 °C. This foam concentrate can be correctly proportioned using most conventional, properly calibrated, in-line proportioning equipment such as:

- Balanced and in-line balanced pressure pump proportioners
- Balanced pressure bladder tanks and ratio flow controllers
- Around-the-pump type proportioners
- Fixed or portable in-line venturi type proportioners
- Handline nozzles with fixed eductor/pick-up tubes

For immediate use: The concentrate may also be diluted with fresh or salt water to a 6% pre-mix solution.

For delayed use: Consult Johnson Controls Technical Services for guidance regarding suitability of a stored pre-mix solution (fresh water only).

Storage and Handling

SKUM AFFF 6% EXG Concentrate should be stored in the original supplied package (HDPE totes, drums, or pails) or in the foam system equipment recommended by Johnson Controls Technical Services. 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 the foam concentrate's long-term effectiveness include temperature exposure and cycling, storage container characteristics, air exposure, evaporation, dilution, and contamination. The effective life of SKUM AFFF 6% EXG Concentrate can be maximized through optimal storage conditions and proper handling. SKUM concentrates have demonstrated effective firefighting performance with contents stored in the original package under proper conditions for more than 10 years.

Mixing SKUM AFFF 6% EXG Concentrate with other foam concentrates for long-term storage is not recommended. Use in conjunction with comparable 6% AFFF products for immediate incident response is appropriate.

Materials of Construction Compatibility

To help avoid corrosion, galvanized pipe and fittings should never be used in contact with undiluted SKUM AFFF 6% EXG Concentrate. Please contact Johnson Controls Technical Services for recommendations and guidance regarding compatibility of foam concentrate with common materials of construction in the firefighting foam industry.

Inspection

SKUM AFFF 6% EXG Concentrate should be inspected periodically in accordance with any of the following standards: NFPA 11, EN 13565-2, or other relevant standard. A representative concentrate sample should be sent to Johnson Controls Foam Analytical Services or other qualified laboratory for quality analysis per the applicable standard. An annual inspection and sample analysis is typically sufficient, unless the product has been exposed to unusual conditions.

Quality Assurance

SKUM AFFF 6% EXG Concentrate is subject to stringent quality controls throughout production, from incoming raw materials inspection to finished product testing, and is manufactured in an ISO 9001:2008 certified facility.

Ordering Information

SKUM AFFF 6% EXG Concentrate is available in pails, drums, totes or bulk shipment.

Part Number	Description	Shipping Weight	Container Volume
106175C2	20 L Pail	22.1 kg (48.7 lb)	0.0285 (1.00 ft^3)
F106175C1	25 L Pail	27.45 kg (60 lb)	0.0329 m^3 (1.16 ft^3)
F106175D1	200 L Drum	218.5 kg (481 lb)	0.2477m^3 (8.74 ft^3)
F106175T1	1000 L Tote	1100 kg (2447 lb)	1.398 m^3 (49.36 ft^3)

For bulk orders consult Account Representative.

Safety Data Sheet (SDS) available at www.skum.com

If any foam product is discharged into the environment, efforts should be made to control, contain and collect the discharge for proper disposal, while following all applicable laws, regulations, and codes. Further information regarding the use, discharge, and disposal of firefighting foams can be found at www.skum.com

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

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