

JET-X 2 3/4% High-Expansion Foam Concentrate

Description

JET-X 2 3/4% High-Expansion Foam Concentrate is a synthetic-based formulation comprised of hydrocarbon surfactants, solvents, and stabilizers for use with medium- and high-expansion foam generators. It is transported and stored as a concentrate to provide ease of use and considerable savings in weight and volume.

JET-X 2 3/4% High-Expansion Foam Concentrate can be used to produce foam with expansion ratios ranging from 50:1 to 1000:1 depending upon the type of generator and its operating pressure. It can be proportioned with fresh, salt or hard water. When used with high-expansion generators, recommended proportioning is at 2.75% (2.75 gallons JET-X concentrate with 97.25 gallons water). When used with medium-expansion foam nozzles, it is typically proportioned at a 2% concentration.

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

Appearance	Green Liquid
Density	1.020 g/ml ± 0.020
pH	6.0 – 7.0
Refractive Index	1.365 ± 0.010
Viscosity	8 ± 2 centistokes

Application

JET-X 2 3/4% High-Expansion Foam Concentrate is a tremendously flexible firefighting agent, used in fighting Class A, Class B, and LNG fires both indoors and outdoors. It is used only with air-aspirating foam discharge devices except when used as a wetting agent on Class A fuels.

JET-X 2 3/4% High-Expansion Foam Concentrate, when used with high-expansion generators, is capable of totally flooding large rooms and enclosures allowing it to effectively extinguish horizontal and vertical (three-dimensional) fires. High-expansion foam is also effective in reducing vapor concentrations downwind from unignited LNG and other hazardous low boiling point gaseous products such as ammonia spills.

When used with medium-expansion foam equipment, JET-X 2 3/4% High-Expansion Foam Concentrate forms a foam blanket which prevents the release of fuel vapor and also provides additional cooling due to the higher water content. Medium-expansion foam has benefits in outdoor applications because the foam is less affected by wind conditions.



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Foaming Properties

The performance of JET-X 2 3/4% High-Expansion Foam Concentrate will vary depending upon the performance characteristics of the equipment. Expansion ratios through high-expansion generators are typically between 200:1 and 1000:1. For this reason, it is important for the proper design of a high-expansion system that the JET-X 2 3/4% High-Expansion Foam Concentrate be specifically listed with the foam generators. Refer to the performance table listing expansion ratios of JET-X high-expansion generators used in conjunction with JET-X 2 3/4% foam concentrate (See JET-X Generator Data Sheet, Form F-93137, latest edition). Medium-expansion foam generators typically deliver expansion ratios between 50:1 and 200:1.

Proportioning

JET-X 2 3/4% High-Expansion Foam Concentrate can be proportioned easily at the correct dilution using most conventional proportioning equipment such as:

1. Balanced pressure and in-line balanced pressure pump proportioning equipment
2. Balanced pressure bladder tank proportioners
3. Around-the-pump type proportioners
4. Fixed or portable in-line venturi (eductor) type proportioners

The usable temperature range for JET-X 2 3/4% High-Expansion Foam Concentrate with this equipment is 35 °F to 120 °F (2 °C to 49 °C).

Storage

Store JET-X 2 3/4% High-Expansion Foam Concentrate in the packaging supplied (polyethylene totes, drums or pails) or in equipment recommended by the manufacturer as part of the foam system and within the temperature limits specified.

Avoid freezing of the product. If the product is frozen during storage or transport, it must be thawed and inspected for signs of separation. If separation has occurred, the product must be mixed until homogenous.

Storage of JET-X 2 3/4% High-Expansion Foam Concentrate as a pre-mix is not recommended.

Compatibility

Refer to ANSUL Technical Bulletin No. 64 for a detailed discussion of compatibility.

Different types of foam concentrates (e.g., AFFF, protein base) should not be mixed under any circumstances. JET-X 2 3/4% concentrate should not be mixed for use with JET-X 2% concentrate.

Materials of Construction Compatibility

Tests have been performed with JET-X 2 3/4% High-Expansion Foam Concentrate verifying its compatibility with standard carbon steel "black" pipe and pipe manufactured from various stainless steel or brass compounds. Alternative pipe, fittings, and valves may be used in some cases if acceptable to the customer and/or the authority having jurisdiction. Refer to ANSUL Technical Bulletin No. 59 addressing acceptable materials of construction for use with ANSUL foam concentrates.

Galvanized pipe and fittings must not be used in areas where undiluted concentrate will contact them since corrosion will result.

Please **first** consult Tyco Fire Protection Products for specific guidelines concerning materials of construction.

Inspection

As with any fire suppressing agent, JET-X 2 3/4% High-Expansion Foam Concentrate should be inspected periodically per requirements of NFPA 11 "Standard for Low-, Medium-, and High-Expansion Foam." Annually submit samples to the manufacturer or a qualified laboratory for quality condition testing. Refer to the Field Inspection Manual (Part No. 31274) for detailed inspection procedures. An annual inspection is recommended unless unusual conditions of exposure occur. In such cases, contact Tyco Fire Protection Products for more information.

Expansion ratios observed in lab tests may vary depending on the equipment and methods used by the testing laboratory. For this reason, lab scale expansion ratios outside of the range typical of full scale equipment (200:1 to 1000:1) do not necessarily mean that a foam concentrate is not fit for purpose. If there are any questions about the viability of an ANSUL High-Expansion Foam Concentrate sample, contact Tyco Fire Protection Products.

Approvals and Listings

JET-X 2 3/4% High-Expansion Foam Concentrate is Underwriters Laboratories (UL) Listed and Factory Mutual (FM) Approved with various foam hardware devices.

Ordering Information

JET-X 2 3/4% High-Expansion Foam Concentrate is available in pails, drums, totes, or bulk shipment.

Part No.	Description	Shipping Weight	Cube
420008	Pail 5 gal (19 L)	51 lb (23.1 kg)	1.08 ft ³ (0.0305 m ³)
420009	Drum 55 gal (208 L)	577 lb (261.7 kg)	11.33 ft ³ (0.3208 m ³)
431175	Tote 265 gal (1000 L)	2465 lb (1118 kg)	50.05 ft ³ (1.42 m ³)
420208	Bulk Order	Contact Technical Services	

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

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