

## METEOR T-10 High-Expansion 3% Foam Concentrate

### Features

- 3% High-Expansion Concentrate on hydrocarbons
- EN1568:2008 and IMO MSC 670 Approved
- For use on hydrocarbon liquids
- Freeze protected to -10 °C
- Suitable for use with fresh and salt water
- Supplied ready to use in 20 L, 25 L, 200 L, or 1000 L packaging

### Description

METEOR T-10 High-Expansion Foam Concentrate is a synthetic based formulation comprised of hydrocarbon surfactants, solvents, and stabilizers for use with low, medium, and high-expansion foam generators.

METEOR T-10 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. When used with high-expansion generators, recommended proportioning is at 3% (3 L METEOR T-10 concentrate with 97 L of water).

### Performance

METEOR T-10 is measured against the latest specifications of the European Standard EN1568:2008 edition and marine IMO standard MSC/Circ. 670. Testing on both standards have allowed rigorous testing with both fresh and salt water to meet the required performances.

The performance of METEOR T-10 foam concentrate when used at high-expansion varies depending upon the performance characteristics of the equipment. Expansion ratios through high-expansion generators typically are between 200:1 and 1000:1. For this reason, it is important for the correct design of a high-expansion system that the METEOR T-10 foam concentrate be specifically tested with the foam generators.

Medium-expansion foam generators typically deliver expansion ratios between 50:1 and 200:1.

### Application

METEOR T-10 can be proportioned easily at the correct dilution using all conventional dosing equipment such as:

- PP, PPW pressure pump proportioning equipment
- MTB bladder tank and related TP proportioners
- Fixed inline venturi type MI inductors
- Around the pump type PI proportioners



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METEOR T-10 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.

METEOR T-10 High-Expansion Foam Concentrate, when used with high-expansion generators, is capable of totally flooding large rooms and enclosures allowing it to effectively suppress horizontal and vertical (three-dimensional) fires. High-expansion foam is also effective in reducing vapour concentrations downwind from un-ignited LNG and other hazardous low boiling point gaseous products such as ammonia spills.

When used with medium-expansion foam equipment, METEOR T-10 forms a foam blanket that prevents the release of fuel vapour 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.

METEOR T-10 is ideal for fixed high-expansion systems such as warehouse total flooding protection, pump rooms, LNG pits, fire brigade daily applications, and aircraft hangars.

The foam produced by METEOR T-10 suppresses hydrocarbon fires best when applied using gentle application.

### Approvals

The fire performance of METEOR T-10 is measured and listed according to:

- EN1568:2008 Part 1 and 2
- IMO MSC Circ. 670 and MED
- MED B



**Note:** While NFF (also known as 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.

## Storage and Shelf Life

METEOR T-10 has an operational temperature range of -8 °C and +60 °C. When stored in the packaging supplied (polyethylene drums or cans) or in equipment recommended by the manufacturer as part of the foam system and within the temperature limits specified, the shelf life of METEOR T-10 Concentrate is about 20 to 25 years.

The factors affecting shelf life and stability for SKUM foam agents are discussed in detail in our Technical Bulletin 11A for storage recommendation.

If the product is frozen during storage or transportation, thawing renders the product usable. Mixing after freeze thaw cycling is recommended.

## Safety and Handling

See our corresponding Material Safety Data Sheet.

## Eco-Toxicology and Disposal

METEOR T-10 is environmentally safe and rapidly biodegradable. METEOR T-10 does not contain any fluorosurfactant and is therefore considered to be a fluorine free foam.

## Compatibility

There are no specifications or standards that address the subject of compatibility of different manufacturers' brands of multiple expansion foam concentrates. In an emergency or if the manufacturer has supporting test data to substantiate that the mixture meets the same requirements as the individual component concentrates, they may be mixed together in the same storage vessel.

Different types of foam concentrates, such as multiple expansion and protein based, should not be mixed under any circumstances.

Refer to SKUM Technical Bulletin No. 13A addressing acceptable materials of construction. For more information, e-mail [info@skum.com](mailto:info@skum.com).

## Quality Assurance

METEOR T-10, as with all Johnson Controls products is subject to stringent quality controls throughout all stages of production, from incoming raw to the complete product and is manufactured in an ISO 9001:2008 controlled facility.

## Inspection

As with any fire suppression agent, METEOR T-10 should be inspected periodically. NFPA 11 or EN 13565-2 requires that foam concentrate samples be submitted to the manufacturer or other qualified laboratory for quality condition testing at least annually. Contact Johnson Controls for further information on annual inspection.

## Typical Properties at 20 °C

Property	Specification		
METEOR T-10	HI-EX 3%		
Fire classes	A and B		
Shape and color	Clear liquid, brown		
Smell	Characteristic, surfactant-alike		
Density (20 °C)	1.06 ±0.02 g/ml		
pH (concentrate, 20 °C)	7.0 ±1.0 pH		
Viscosity 20 °C	7.0 ±2.0 mm <sup>2</sup> /s		
Sediment (EN-1568 / IMO)	≤ 0.1%		
Admixing ratio	3% Vol.		
Freezing point	≤ -13 °C		
Pour point	≤ -10 °C		
Storage or usage temperature	-8 °C to +60 °C		
Expansion	<b>Medium</b>	<b>High</b>	<b>Low</b>
Expansion standard	EN-1568:1	EN-1568:2 IMO 670	EN-1568:3 IMO 1312
Expansion ratio	≥ 120:1	≥ 800:1	≥ 9:1
Drain time 25% (20 °C) min:s	≥ 10:00	≥ 10:00	≥ 8:00
Drain time 50% (20 °C) min:s	–	–	≥ 15:00

## Ordering information

METEOR T-10 can be supplied in cans, drums, totes or bulk (contact Johnson Controls for bulk delivery details).

Part No.	Description
F203163C2	20 L can
F203163C3	20 L DIN can
F203163C1	25 L can
F203163D1	200 L drum
F203163T1	1000 L tote
F203163B1	Bulk

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

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