

# TOWALEX P 3% PROTEIN 3% FOAM CONCENTRATE

A Tyco International Company

- 3% on hydrocarbon fires
- Newtonian viscosity
- UL-162 Listed
- Freeze protected to –12°C
- For use with aspirating discharge devices
- Suitable for use with fresh, salt or hard water
- Supplied ready to use in 20, 25 200 or 1000 litres packaging



#### **DESCRIPTION**

TOWALEX P 3% Protein Foam Concentrate is formulated from hydrolyzed protein, foam stabilizers (metal salts), bactericide, corrosion inhibitors, freezing point depressants and solvents. It is transported and stored as a concentrate to provide ease of use and considerable savings in weight and space.

It is intended for use as a 3% proportioned solution either in fresh, salt or hard water. The correct proportioning ratio is 3 parts of concentrate to 97 parts of water.

Two fire extinguishing mechanisms are in effect when using TOWALEX P 3%. First, a foam blanket is formed which works to prevent the release of fuel vapor. Second, the water content of the foam provides a cooling effect.

#### **PERFORMANCE**

TOWALEX P 3% is measured against specifications and standards such as Underwriters Laboratories Standard UL 162, latest edition.

When used with fresh or salt water or water of any hardness at the correct dilution and with most conventional foam making equipment, the expansion ratio will vary depending on the performance characteristics of the equipment. Air aspirating discharge devices produce expansion ratios from 8 to 1 to 12 to 1 depending primarily on type and flow rate. In general, the higher the flow rate the higher the expansion ratio. Thus, monitors and foam chambers normally produce higher expansion ratios than foam water sprinkler heads and hand held type nozzles.

Typical expansion ratios for foam chambers are in the range of 5 to 1 to 7 to 1, and for foam water sprinkler heads in the range of 3 to 1 to 6 to 1.

#### **APPLICATION**

TOWALEX P 3% Protein Foam Concentrate is intended for use on Class B hydrocarbon fuels having low water solubility such as various crude oils, gasolines, diesel fuels, aviation fuels, etc. It is not suitable for use on fuels having appreciable water solubility (polar solvents), i.e., methyl and ethyl alcohol, acetone and methyl ethyl ketone.

This concentrate can be used only with air aspirating type discharge devices.

It can also be used with foam compatible dry chemical extinguishing agents without regard to the order of application, to provide even greater fire protection capability.

TOWALEX P 3% can be used by most conventional foam equipment such as:

- Balance pressure pump proportioning equipment
- Bladder tank and related proportioners
- Around-the-pump proportioners
- Fixed and portable In-line venturi type inductors
- Fixed or handline nozzles with fixed induction/ pick up tubes

### **APPROVALS**

The fire performance of TOWALEX P 3% is measured and listed according to:

UL-162 latest edition



## TOWALEX P 3% PROTEIN 3% FOAM CONCENTRATE

#### STORAGE AND SHELF LIFE

TOWALEX P 3% has an operational temperature range of -10°C and +60°C. Limited exposure to temperatures above +60°C does not affect the firefighting performance.

When stored in the packaging supplied (polyethylene drums or pails) within the temperature limits specified, or in equipment recommended by the manufacturer as part of the foam system, the shelf life of TOWALEX P 3% Fluoroprotein Foam Concentrate is generally in excess of 10 years.

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

If the product is frozen during storage or transportation, the concentrate should be thawed and used without any degeneration of the performance.

#### **SAFETY AND HANDLING**

See our corresponding "Material Safety data sheet".

### **COMPATIBILITY**

There are no specifications or standards which address the subject of compatibility of different manufacturer's brands of fluoroprotein 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, i.e., AFFF and fluoroprotein base should not be mixed under any circumstances.

For more information regarding specific guidelines about construction materials, please email info@skum.com

#### **OUALITY ASSURANCE**

TOWALEX P 3% – as with all TYCO Products – is subject to a very 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. Quality assurance is therefore guaranteed.

#### **TYPICAL PROPERTIES**

TOWALEX P 3%	P 3%
Fire Classes	В
Shape and color	Brown clear liquid
Smell	Characteristic, Protein
Density (20°C)	1.16 ±0.02 [g/ml]
pH (concentrate, 20°C)	6.0 - 8.0
Viscosity 20°C	8.0 ±2.0 [mm²/s]
Sediment (EN 1568)	≤ 0.25 [%]
Admixing ratio	3 [% Vol.]
Expansion Ratio (EN 1568-3)	≥ 7.0
Drain Time 25%, (20°C, EN 1568-3)	≥ 5:00 [min:s]
Drain Time 50%, (20°C, EN 1568-3)	≥ 9:00 [min:s]
Expansion	Low
Freezing Point	≤ -15 [°C]
Pour Point	≤ -12 [°C]
Recommended storage/Usage temperature	-10 to +60 [°C]

## **ORDERING INFORMATION**

TOWALEX P 3% can be supplied in cans, drums, totes or Bulk (contact us for Bulk delivery).

Part No. F603118C1 25 Liter can
Part No. F603118D1 200 Liter drum
Part No. F603118T1 1000 Liter tote

Part No. F603118B1 Bulk

Tyco Fire Protection Products www.skum.com **EMEA** 

Tel: +44 (0)161 875 0402 Fax: +44 (0)161 875 0493 salestbspuk@tyco-bspd.com **ASIA PACIFIC** 

Tel: +65 6577 4360 Fax: +65 6481 8791 sales-ap@tycofp.com



TDS: F603118 03/11