SABO española
www.sabo-esp.com

PLUREX SG

Foam concentrate

Hydrocarbon and Gas fires application foam agent Low, Medium and High Expansion foam

Description

PLUREX SG is a foam agent especially formulated to produce a highly stable low, medium and high expansion foam to control and limit gas evaporation on particular ap-plications such as LNG and LPG and liquid ammonia spills.

Synthetic high expansion foams used for the protection of storage and process areas for LPG, LNG, Ammonia and similar products are considered of great help for the mitigation of massive spills.

High expansion foams serve a dual purpose with their application for the fire prevention on large non-burning spills and the extinction of spill fires or continuous leaking.

Experimental works have confirmed that high expansion foams are highly effective for reducing the hydrocarbon evaporation. Experiences made by SABO FOAM in Italy shows that the foam will have an optimum performance when used for this purpose at an approximate expansion ratio of 300:1. This value being easily obtainable by static high expansion foam generators with high stabilit synthetic foams, such as PLUREX SG.

For application on ammonia spills the foam must have a remarkably high drainage stability. Slow drainage can en-sure a more efficient coverage for longer periods and can minimize the thermal exchange between drained water and liquefied gas, which is potentially one of the main causes for the hydrocarbon evaporation.

Performance

PLUREX SG positive action is due to a series of phenomena that can be briefly described as follows:

- Foam shield flames radiation against the liquid hydrocarbon and spoils the retroaction mechanism which is the basis of liquids combustion;
- Foam is being destroyed by flames and becomes water vapour; leading to a remarkable thermal energy reduction which causes a drastic decrease of flame temperature and an even more sensible drop of radiated heat (emitted power is more or less proportional to the fourth power of absolute temperature of flame gases). Generated water vaporization makes the flame less smoky and reduces the thermal emission coefficient;

- Foam creates an effective radiation protecting barrier and cooling effect for structures, pipelines, valves, etc.

PLUREX SG has an outstanding foam resistance and an extremely high stability to drainage and complies to the most severe technical specifications for synthetic high expansion foam compounds.

PLUREX SG can be used by most conventional foam equipment such as:

• Balance pressure pump proportioning equipment
• Bladder tank and related proportioners
• Fixed and portable In-line venturi type inductor

Best performances are obtained with PLUREX SG when used with application percentage of 3% to 6%.

The performance of PLUREX SG has been tested in collaboration with many large end users such as Gaz de France on LNG fire to give an optimum performance at 4% concentration. It is widely use in countries like Algeria, a large producer of LNG. Ammonia test performance have also been carried out in partnership with users.

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Storage and shelf life

PLUREX SG has an operational temperature range of 0°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 cans) or in equipment recommended by the manufacturer as part of the foam system and within the temperature limits specified, the shelf life of PLUREX SG concentrate is about 20-25 years.

The factors affecting shelf life and stability for SABO 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".

Quality insurance

PLUREX SG – as with all SABO ESPAÑOLA 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 con-trolled facility. Quality assurance is therefore guaranteed.

Typical properties

PLUREX SG	HI-EX
Fire Classes	A and B
Shape and colour	Pale yelow clear liquid
Smell	Characteristic, surfactant-alike
Density (20ºC)	1,03 ± 0,02 [g/ml]
pH (concentrate, 20ºC)	7,0 ± 0,5
Viscosity 20ºC (*)	5 ± 2,0 [mm^2/s]
Sediment (EN 1568)	≤ 0,1 [%]
Admixing ratio	3 to 6% [% Vol.]
Expansion ratio (EN 1568-3)	≥ 9,0
Drain time 25% (20ºC, EN 1568-3)	≥ 9:00 [min:s]
Drain time 50% (20ºC, EN 1568-3)	≥ 15:00 [min:s]
Expansion	Low, Medium, High
Freezing Point	≤ -9 [ºC]
Pour Point	≤ -5 [ºC]
Recommended storage / usage temperature	0 a +60 [ºC]

Ordering information

PLUREX SG can be supplied in cans, drums or totes.

Part No. F204335C1 25 Liter can
Part No. F204335D1 200 Liter drum
Part No. F204335T1 1000 Liter tote