## Perimetersolutions Quality Products. Exceptional Response.



# PRODUCT DATA SHEET

### SOLBERG AVIGARD ICAO LEVEL "B" CERTIFIED FLUORINE-FREE FOAM CONCENTRATES

SOLBERG® AVIGARD™ Fluorine-Free Foam Concentrates are a state-of-the-art fluorine-free, low viscosity aviation foam technology designed for extinguishing and securing flammable aviation fuel spills and fires (Jet A and Jet A1). A special combination of hydrocarbon surfactants and additives delivers excellent foaming, extinguishment and burnback properties to firefighting foams using either fresh water or sea water. SOLBERG AVIGARD foam concentrates contain no added PFAS chemicals and can be considered as readily and rapidly biodegradable.

#### APPLICATION

The SOLBERG AVIGARD line features a special formulation designed to meet or exceed ICAO regulations with excellent performance on Jet A/Jet A1 fuel – with high fluidity and slow drainage. They may be used with low expansion foam equipment (nozzles and monitors) and medium expansion foam devices to fight fires involving Class B hydrocarbon fuel fires.

## Breakthrough fluorine-free formulation for the aviation market

- Fresh & salt water compatible
- No PBT profile
- Newtonian (low viscosity) flow characteristics
- Fast knockdown & extinguishing performance
- Excellent burnback and vapour suppression performance
- Environmentally responsible and readily biodegradable
- Lower disposal costs
- Compatible with ARFF equipment

#### **USAGE RATE**

The proportioning rate is either 3% or 6%. SOLBERG AVIGARD is also certified for sea water.

TYPICAL PROPERTIES	3B	6B	
Specific gravity @ 20°C		1.09 ± 0.02	1.05 ± 0.02
pH @ 20°C	7.5 ± 0.5	7.5 ± 0.5	
Viscosity, mPa.s	@ 20°C @ 0°C	< 30 45	< 10 20
Freezing point, °C		-8°C	-3°C
Lowest temperature for	-5°C	0°C	

FOAM PROPERTIES	3B	6B	
Dilution rate	3%	<b>6</b> %	
Surface tens. at 20°C, mN/m (Demineralised water)	<25	<25	
Low expansion foam (UNI-86) Foam expansion index 25% Drainage time, mins	>8.0 >3:00	>8.0 >3:00	

#### STORAGE

The concentrate should be stored preferably in the original containers or in stainless steel or epoxy lined tanks. Avoid permanent contact with carbon steel, iron, copper alloys, or aluminum. Do not mix with other foam concentrates without a previous verification of compatibility. When stored in original containers or in manufacturer recommended equipment and within specified temperature range, the shelf life of the product is rated to exceed 20 years.

#### PACKAGING

Pail	20 L / 5 Gal
Drum	200 L / 55 Gal
IBC	1000 L / 265 Gal

#### ENVIRONMENTAL

SOLBERG AVIGARD products contain no fluorosurfactants, fluoropolymers, organohalogens, PFCAs, PFOA and no PFOS in accordance with EU Directive 2006/122/EC and amended by Council Directive 76/769/EEC. They present no concern for persistence, bioaccumulation or toxic breakdown (PBTs).

#### CAUTIONS

It is recommended to avoid the contact of the foam concentrate with the skin. In case of eye splashes, wash with plenty of water. In case of ingestion do not induce vomiting, drink water and seek medical advice.

#### PERFORMANCE

SOLBERG AVIGARD has approval certification according to International Civil Aviation Organization (ICAO) Airport Service Manual (DOC 9137-AN/898) Part 1 - Rescue and Firefighting, Level B.

SOLBERG AVIGARD 3B		SOLBERG AVIGARD 6B					
Standard	ICAO B Standard	Fresh Water	Sea Water	Standard	ICAO B Standard	Fresh Water	Sea Water
Fuel		Jet Al	Jet Al	Fuel		Jet Al	Jet Al
Application		Forceful	Forceful	Application		Forceful	Forceful
Dilution rate, %		3	3	Dilution rate, %		6	6
Extinguishment time, min:s.	< 2:00	1:05	0:48	Extinguishment time, min:s.	< 2:00	1:23	1:26
Burnback time, min:s.	> 5:00	9:05	6:10	Burnback time, min:s.	> 5:00	7:45	6:13



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