# **SOLAR ACCESSORIES**

# mastersolar

## FROST PROTECTION FWF-VSF EVAPORATION-PROOF, READY TO USE, READY-MIXED



### Frost protection FWF-VSF evaporation-proof, ready-mixed to -24 °C

are environmentally friendly long-term anti-freeze agents on a mono propylene glycol basis. They prevent frost in thermal solar systems and are used as heat transport fluids. Special corrosion inhibitors protect the metal and plastic materials normally used in the construction of such systems, including copper and aluminium, from corrosion as well as the development of coatings and depositions. This helps to maintain the efficiency of the systems. The fluid is food-safe and does not corrode the standard sealing materials used in heating systems. The anti-freeze fluid was specially designed for use as a heat transport medium in solar systems with high no-flow temperatures. To ensure that it maintains its special characteristics, the anti-freeze fluid may not be mixed with other heat transport media or diluted with water.

#### **Specifications**

Туре		FWF-VSF evaporation-proof, ready-to-use
Product data	Appearance	Green dyed liquid
	Odour	Virtually odourless
	Operating temperature	-24 °C to 230 °C
	Basis	Di-propylene glycol
	Boiling point (ASTM D 1120)	>102°C
	Frost protection	-24°C
	Density at 20 °C	1.02–1.04 g/cm <sup>3</sup> (DIN 5157)
	Viscosity at 20 °C	15 mm²/s
	Thermal conductivity at 20 °C	Approx. 0.4 W/mK
	Miscibility	To ensure that it maintains its special characteristics, FWF-VSF may not be diluted or mixed with other heat transport media or water. Only FWF-VSF may be used to top up fluid losses!
	Seal compatibility	Does not corrode the standard sealing materials used in heating systems
	Inhibited	Free of nitrites, secondary amines, phosphates and borates