

Technical Bulletin

PLURASAFE® P44 Fluid

PLURASAFE® P44 is a nitrite-free antifreeze and corrosion inhibitor product that is based on propylene glycol, which is less toxic. PLURASAFE® P44 is supplied in a concentrated form. PLURASAFE® P44 contains corrosion inhibitors which protect all metals typically used in heating, solar heating systems and cryogenic plants from corrosion, and scale formation. PLURASAFE® P44 promotes efficient heat transfer by preventing the surfaces of heat exchangers from being fouled. PLURASAFE® P44 offer maximum protection against corrosion, frost and fouling. It is miscible with water in all proportions. PLURASAFE® P44 forms stable mixtures with water. It contains high-performance corrosion inhibitors which have been individually adapted to the type, design and materials of the equipment in which they are used. This ensures maximum reliability and a long working life.

PLURASAFE® P44 does not contain nitrites or phosphates. Can be used at temperatures between -50 °C and 170 °C, depending on concentrations, after dilution with water.

Stringent quality checks ensure consistently high quality. Our quality system has been certified according to ISO 9001. You can depend on BASF's PLURASAFE® P44.

For use in

- Heating and cooling equipment used in the food and beverages industry
- Solar heating systems for potable water
- Power units for pumps
- Underground heat exchangers
- Sprinkler systems

Typical Values	PLURASAFE® P44	Test Method
Appearance	Clear colorless to yellow liquid	Visual
Boiling point °C	> 165	ASTM D 1120
Pour point °C	< - 50	ASTM D 97
Density (20 °C) g/cm ³	1.054–1.058	ASTM 1298
Refractive index n _{D20}	1.435–1.437	DIN 51423
Viscosity (20 °C) mm ² /s	68-72	ASTM D 445
pH-value	6.5–8	ASTM D 1287
Alkali reserve ml 0.1N HCl	10–13	ASTM D 1121
Flash point °C	120	ASTM D 92
Water content %	approximately 4	ASTM D 1123

Metallic corrosion in g/m², tested according to ASTM D 1384:

Material	PLURASAFE® P44
	ASTM-water 1:2
Copper (SF Cu)	- 0.1
Soft solder (L SN 30)	- 0.2
Brass (MS 63)	- 0.1
Cast iron (GG 26)	- 0.2
Steel HI	- 0.1
Cast aluminium (G AlSi6Cu4)	- 0.3
Aluminium Al 99.5	- 0.2

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