Mabanol Coolant PG

Heat transfer and cooling medium based on propylene glycol

Application
Mabanol Coolant PG is used particularly in the food and beverage industry, due to the very low level of oral toxicity. It can be used for applications where there is direct or indirect contact with foodstuffs (specific concentration limits), because it complies with the Food Chemical Codex (FCC).
All of the substances it contains are Generally Recognized As Safe (GRAS) by US supervisory body the Food and Drug Administration (FDA). Typical application areas for Mabanol Coolant PG are the refrigeration and freezing of foodstuffs as well as defrosting processes, for instance in dairies, the beverage industry, breweries, fish and meat processing businesses and frozen food chains.

Properties
Mabanol Coolant PG is a physiologically harmless heat transfer and cooling medium based on propylene glycol. It is largely flavourless, colourless and odourless.
It offers optimal corrosion protection for metals such as copper, brass, solder, grey cast iron, steel, and aluminium. Furthermore Mabanol Coolant PG serves as an antifreeze, corrosion protection agent, and heat transfer medium or cooling medium (cooling brine) in heating and cooling systems. It optimally prevents frost damage, corrosion, deposits, and sludge accumulation and in addition exhibits longterm resistance to the formation of biofilms, rot and microbiological decomposition.

Application guidelines
Galvanised components are to be avoided, as zinc is generally volatile with glycol and products which contain glycol. With regard to protection from corrosion, chlorides, sulfates and ammonia in particular have a negative effect on the corrosion inhibition. Scalings on copper components, metal swarf and contaminations are to be removed completely before the plant is filled. Plants that are to be operated with Mabanol Coolant PG must not be in contact with any external electrical potential.

Dilution table

Vol %	25	30	40	50
Frost protection up to °C	-11	-14	-22	-32

Mabanol Coolant PG is supplied as a concentrate and, depending on the frost resistance required, can be mixed with water. In order to ensure an ideal distribution, the system should first be filled with approx. 50% of the required quantity of water. After the system has been filled, a several hours long circulation should take place (ideally overnight, if possible).

Data

	Unit	Value
Density at 20°C	g/cm³	1,05 – 1,06
Boiling Point (1013 mbar)	°C	ca. 187
pH-Wert		6 – 8
Vapour pressure (20°C)	mbar	0,11
Specific heat (20°C)	KJ/Kg°K	2,49
Thermal conductivity (20°C)	W/m°K	0,20

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The above values may vary within the commercial limits.

Customs Tariff No.: 3820 0000

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