PRODUCT DATA SHEET

Eni Antifreeze Eco Spezial BX

Eni Antifreeze Eco Spezial BX - mixed with the appropriate amount of water - is used as a cooling and heat transferring fluid in combustion engines. The heat of the internal combustion is transferred via the fluid to the radiator where the mixture is cooled by means of air flow. **Eni Antifreeze Eco Spezial BX** is a propylene glycol based fluid that provides maintenance-free protection against *freezing and boiling* but also against *corrosion.* Extended coolant life, often for the whole life of the engine or vehicle, is obtained through the use of virtually non depleting corrosion inhibitors.

BENEFITS

Eni Antifreeze Eco Spezial BX offers many benefits to the designer as well as to the user:

extended life	by synergistic combination
improved heat transfer	leaves more flexibility to engine design
reduces repairs	to thermostat, radiator and water pump
reliability	depletion free and stable inhibitor
improved hard water stability	absence of silicates and phosphates
save time and money	maintenance-free coolant
suitable for mixed fleets	1 coolant for automotive & heavy duty application
environmentally friendly	by using carboxylic additives in the inhibitor package

Based on patented *silicate-free* aliphatic additives technology, **Eni Antifreeze Eco Spezial BX** provides long-life corrosion protection for all engine metals, including aluminium and ferrous alloys. The synergistic combination of mono- and di-carboxylates present in this coolant, has proven to provide protection for at least **650.000 km** (ca. 8.000 hrs.) in truck & bus-application or **250.000 km** (ca. 2.000 hrs) for passenger cars or a minimum of **32.000 hrs** (or 6 years) for stationary engines. It is recommended to change the coolant every five years or at above mileages or operating times, whichever comes first. **Eni Antifreeze Eco Spezial BX** provides long-life protection against all forms of corrosion by the use of optimized and patented organic corrosion inhibitors. Excellent and lasting high temperature corrosion protection is provided for the **aluminium** heat transfer surfaces contained in modern engines. The inhibitor package of **Eni Antifreeze Eco Spezial BX** offers excellent cavitation protection even without using nitrite or nitrite-based supplemental coolant additives (SCA's).

APPLICATION

Eni Antifreeze Eco Special BX provides long-life frost and corrosion protection. To ensure good corrosion protection it is recommended to use at least 33 vol.% of **Eni Antifreeze Eco Spezial BX** in the coolant solution. This provides freezing protection to -16.4°C. Typical mixtures in Northern Europe are 50/50, offering freezing protection down to -38°C.
Eni Antifreeze Eco Spezial BX may be used with confidence in engines manufactured from cast iron, aluminium or combinations of the two metals, and in cooling systems made of aluminium or copper alloys. **Eni Antifreeze Eco Spezial BX** is particularly recommended for hi-tech engines, where high temperature aluminium protection is important.

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COMPATIBILITY AND MIXABILITY

Eni Antifreeze Eco Spezial BX is compatible with most other coolants based on propylene or ethylene glycol.
Exclusive use of **Eni Antifreeze Eco Spezial BX** is, however, recommended for optimum corrosion protection and sludge control. Also, the use of soft water is preferred for dilution. Though lab testing has shown that acceptable corrosion results are still obtained with water of 20 ° dH, containing up to 500 ppm chlorides or 500 ppm sulphates
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TECHNICAL INFORMATION

	Eni Antifreeze Eco Spezial BX	**ASTM 5216 Requirements**	**method**
Propylene glycol	93.0 % w/w glycol	base	
Other glycol's	0,5 % max.	5% w/w max.	
Inhibitor content	5 % w/w		
Water content	4 % w/w max.	5 % w/w max.	ASTM D1123
Ash content	1.4 % w/w typ	5 % w/w max.	ASTM D1119
Nitrite, amine, phosphate, borate silicate	nil		
Colour	uncoloured		
Specific gravity, 15 °C	1.045 typ	1.030 to 1.065	ASTM D1122
Specific gravity, 20°C	1.042 typ		ASTM D1122
Equilibrium boiling point	165 °C typ.	> 152 °C	ASTM D1120
Reserve alkalinity	6.3 typ	Report	ASTM D1121
Refractive index	1.431 typ.		

	50% dilution	**33% dilution**	**ASTM 5216**	**Method**
pH	8.8	8.3	7.5 – 11.0	ASTM D1287
Foaming properties @ 25°C Break Time	59 ml typ 5 sec. Typ.	/		ASTM D1881
Foaming properties @ 88°C Break time	50 ml typ. 5 sec. Typ	/	150 ml. max	ASTM D1881
Initial crystallization	-33.4°C typ.	-14.6°C typ.	<-32 °C	ASTM D1177
Freezing protection	-38.0°C typ.	-16.4°C typ.		
Effect on non metals	no effect	no effect		GME 60 255
Staining characteristics	/	no effect	no effect	ASTM D1882
Hard water stability	no precipitate	/		VW PV 1426

SPECIFICATIES

Eni Antifreeze Eco Spezial BX is approved or meets the following demands:

VW TL 521 D
Kubota.