

CoolTEC 22

Inorganic Antifreeze Additive Package Nitrite, Borate and Silicate free

DESCRIPTION

CoolTEC 22 is an inorganic (IAT) type antifreeze additive package. This product is an aqueous solution which is Nitrite, Borate and Silicate free (NBS free).

CoolTEC 22 is formulated to blend easily with MEG (Mono Ethylene Glycol) and make a final concentrated or "ready to use" antifreeze solution for cooling systems of light and heavy-duty automotive engines. This product imparts excellent corrosion protection to all cooling system metals and alloys used in internal combustion engines. When mixed with appropriate dosage in MEG, this product can meet the requirements of ASTM D3306/ASTM D4985 standard.

DOSAGE

Based on the quantity of glycol (MEG), add 7% by weight of the additive package while agitating or circulating the tank contents.

PROCEDURE

First charge the desired quantity of glycol (MEG) to the blending tank. Heat the glycol to at least 80°F (30°C). Maintain the minimum temperature throughout the blending procedure. Add required amount of **CoolTEC 22** while mixing tank contents. Good mixing is vital to making a consistent and proper product. Agitate for 30-60 minutes after the addition of the additive package. Although this additive package has antifoam as part of the formulation, depending upon your glycol base, additional antifoam may need to be added to pass ASTM foam test.

TECHNICAL PROPERTIES

Property	Unit	Value	Test Method
Appearance	---	Clear to Cloudy Liquid	Visual
Color	---	Pale Yellow	Visual
pH @ 25°C	---	8.5 - 9.5	ASTM D1287
Specific gravity @ 15 °C	---	1.13 - 1.18	ASTM D1122
Reserve alkalinity*	ml	7.5 - 9.5	ASTM D1121
Freezing Point	°C	< -5 °C	ASTM D1177
Water Content*	Wt.%	4 Max	ASTM D1123
Water solubility	---	Complete	---

*7% wt in MEG

INTERNATIONAL STANDARDS

- BS 6580
- ASTM D3306/ASTM D4985
- JIS 2234

ASTM D1384 – Corrosion Test for Engine Coolants in Glassware

(Antifreeze made by 7% CoolTEC 22 and 93% MEG)

METALS	WEIGHT LOSS MG/SPECIMEN	ASTM D3306 SPECIFICATIONS
COPPER	1.50	10 max
SOLDER	4.40	30 max
BRASS	1.60	10 max
STEEL	1.10	10 max
CAST IRON	2.0	10 max
ALUMINUM	6.90	30 max

ASTM D4340 – Corrosion of Cast Aluminum Alloys in Engine Coolants Under Heat Rejection Conditions

(Antifreeze made by 7% CoolTEC 22 and 93% MEG)

METAL	Weight Loss mg/Cm ² /week	ASTM D3306 Specification
Aluminum	0.7	1.0 max

HANDLING AND STORAGE

CoolTEC 22 must be stored above of 32°F (0 °C) at all times. If a container arrives very cold to your warehouse, immediately place it in a hot room for 1-2 days then stir thoroughly prior to use. Once a container is opened there is a possibility of the liquid phase evaporating, so close the container tightly after each use.

High temperatures, above 90°F (35°C), for an extended period of time may also cause degradation of the inhibitors.

The shelf life is 12 months.

SAFETY

For detailed information, please refer to the relevant Safety Data Sheet.

The information and recommendations contained in this technical data sheet are based upon data collected by our laboratory, believed to be correct. However, no warranty of fitness for use or any other guarantees or warranty of any kind, expressed or implied, is made to the information contained herein.