

# RYNA GROUP

Antifreeze additive  
package



## Technical Data sheet (TDS)

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## **Technical Data Sheet (TDS)**

### **R-OAT-B12**

### **Organic Antifreeze Additive Package**

Nitrite, Nitrate, Amines, Borate, Phosphates and Silicate free

This product meets BASF G-33 and Techno fluid P-715 test results

#### **DESCRIPTION**

R-OAT-B12 is an organic (OAT) type antifreeze additive package. This product is an aqueous solution that is Nitrite, Nitrite, Borate, Amines, Borate, Phosphates, and Silicate free.

R-OAT-B12 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 vehicle 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 20% 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 50°F (10°C). Maintain the minimum temperature throughout the blending procedure. Add the required amount of R-OAT-B12 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 the ASTM foam test.

## TECHNICAL PROPERTIES

Property	Unit	Value	Test Method
Appearance	---	Clear to Cloudy Liquid	Visual
Color	---	Colorless to Pale Yellow	Visual
pH @ 20°C	---	7.9	ASTM D1287
Specific gravity @ 15 °C	---	1.126	ASTM D2896
Reserve alkalinity	ml	12.6	ASTM D1121
Freezing Point	°C	0	ASTM D7153
Water Content	Wt. %	1.5 Max	DIN 51777
Water solubility	---	Complete	---

## INTERNATIONAL STANDARDS

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



ASTM D1384 – Corrosion Test for Engine Coolants in Glassware  
(Antifreeze made by 20% R-OAT-B12 and 80% MEG)

Metals	Weight Loss MG/Specimen	ASTM D3306 Specification
Copper	- 0.30	10 max
Solder	- 3.20	30 max
Brass	- 1.10	10 max
Steel	- 0.20	10 max
Cast Iron	3.2	10 max
Aluminum	1.70	30 max

HANDLING AND STORAGE

R-OAT-B12 must be stored above 40°F (5 °C) at all times. If a container arrives very cold in your warehouse, immediately place it in a hot room for 1-2 days then stir thoroughly before 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 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.