# **PRODUCT FACTS**

## Blending Syrup for **HD HOAT Coolant**

#### **FEATURES**

- Hybrid Organic Acid Technology (HOAT).
- · Formulated with Nitrite for Heavy-Duty applications.

#### TYPICAL PROPERTIES

- Syrup color: Amber
- Coolant color: Yellow
- Density @ 68°F: 1.292 g/ml

- Provides maximum protection against rust and corrosion.
- Easy to use, single syrup formulation (liquid) reduces coolant mixing time.

Approximate lbs/gallon: 10.8

Approximate pH (premix): 10.3

Treat Rate (Premix): 1.44%

#### DESCRIPTION AND USE

ACA-4 is used to make a "global" hybrid antifreeze. This hybrid organic acid technology (HOAT) provides protection against damaging rust and corrosion in automobile and truck cooling systems, including American, Asian, and European vehicles. This additive package is formulated to be phosphate-free, and does not contain 2-Ethylhexanoic acid (2EH).

Engine coolant made from the ACA-4 additive package and when blended according to Dober's blending procedure is designed to meet the following industry and performance requirements:

ASTM D3306, D4985, and D6210. BS 6580 (British Standard) Caterpillar (DEAC) Chrysler MS 7170 **Cummins** 

**Detroit Diesel** 

Ford WSS-M97B51-A1 JIS K 2234 John Deere H-5, H24B1, H24C1 SAE J1034, J1941 TMC RP329, RP330



#### PACKAGING INFORMATION

Dober ACA-4 is blended as a concentrated liquid product and is available in drums, totes or bulk.



#### STORAGE AND HANDLING

Store Dober ACA-4 at moderate temperatures of 50° to 100°F (10° to 38°C). To ensure maximum activity this product should be used within two years from the date of manufacture. Keep containers closed when not in use.



#### SAFETY PRECAUTIONS

A Material Safety Data Sheet containing detailed information about this product is available upon request or online at http://msds.dobergroup.com/default.aspx

Do not take internally. Product may cause moderate irritation to the skin and is a severe irritant to the eyes. Mists/aerosols/dusts may cause irritation to upper respiratory tract. If material comes in contact with skin or eves. wash skin thoroughly and flush eyes with water. Seek immediate medical attention.



For additional information contact Dober at:

630-410-7300

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### **Antifreeze Premix Typical Properties**

Methods	Spec Limit			
ASTM D1122	1.053 – 1.083			
D1287	10.0 – 10.8			
Visual	Yellow			
Visual	Clear/None			
D1121	2.5 Min.			
Refractomer	-34°F max.			
D1881	150/5			
IC or HACH 8153	1,800 to 2,215 mg/L			
	D1287 Visual Visual D1121 Refractomer D1881			

Test Parameter	ASTM Method	Pass/Fail	Result
Effect on automotive finishes	D1882	Pass	Pass
Freeze Point (°C)	D1177	Pass	-35.3°F / -37.4°C
Boiling Point (°C)	D1120	Pass	109.3
Ash Mass %	D1119	Pass	0.336
Glassware Corrosion Test	D1384	Pass	Pass
Water Pump Cavitation Test	D2809	Pass	9
Aluminum Corrosion Test	D4340	Pass	Pass
Simulated Service Test	D2570	Pass	Pass

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