



HDD-N Antifreeze Red Premix

Tx HDD-N Antifreeze Red Premix is a genuine Long Life Ready-to-use Antifreeze / Coolant formulated with superior Hybrid Organic Acid Technology (HOAT). Tx HDD-N Antifreeze Red Premix is a low silicate, phosphate and amine free product suitable for all engine coolant applications.

Tx HDD-N Antifreeze Red Premix has a balanced inhibitor system making it suitable for use with all metal types including aluminium.

Tx HDD-N Antifreeze Red Premix is based on proprietary hybrid organic acid technology and DOES NOT require an initial charge of supplemental coolant additives (SCAs) upon initial fill in heavy duty diesel applications. It is designed for complete mixed fleet use and is primarily recommended for North American OEM engines for all heavy duty diesel, light duty diesel applications as well as all makes and models passenger vehicles (aluminium compatible). Tx HDD-N Antifreeze Red Premix is ready to use directly from the container.

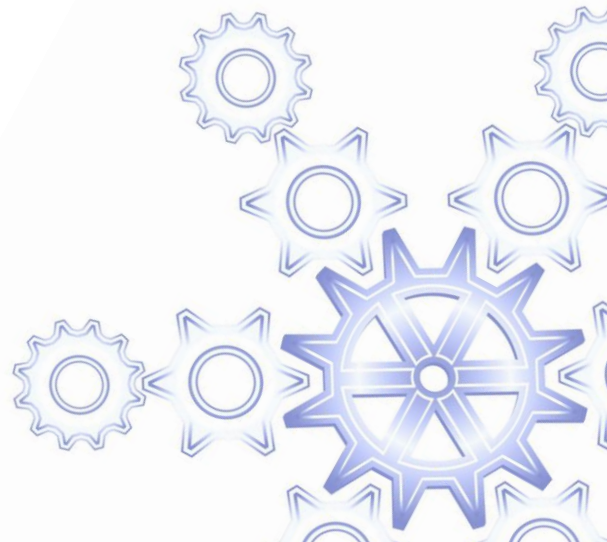
Tx HDD-N Antifreeze Red Premix is specially formulated to protect heavy duty diesel wet sleeve liners. SCA addition is application dependent and should only be added as and when required by the vehicle's OEM. This coolant is compatible with coolant filters and heavy duty diesel SCAs and coolant extenders.

Advantages:

- * Low silicate
- * Phosphate and Amine free
- * OEM approved
- * Hard water compatible
- * No initial SCA requirement at initial fill
- * Universal use, fully meets or exceeds standard industry requirements for automotive, light duty, and heavy duty diesel applications
- * Product is compatible with both conventional and OAT coolants although to get best performance [regarding issues such as extended life and time between SCA additions] it is best to flush the old coolant and replace with Tx HDD-N Antifreeze Red Premix
- * Product is compatible with standard SCAs and coolant extenders
- * Extended life 6 years, 12,000 hours or 1,000,000 km whichever comes first

Tx HDD-N Antifreeze Red Premix is also approved by the following OEMs:

- | | |
|--------------------|------------------|
| * MTU | * Detroit Diesel |
| * Daimler Chrysler | * |



Tx HDD-N Antifreeze Red Premix meets or exceeds the performance requirements of the following engine coolant specifications:

- * ASTM D-3306, D-4985, D-6210
- * Caterpillar EC1
- * Cummins 14603
- * Detroit Diesel 7SE 298
- * DaimlerChrysler MS 7170, MS 9769
- * Ford ESE-M97B44A, ESE-M97B18-C, Ford WSS-M97B51-A1
- * Freightliner 48-2288D
- * GM 1825M, 1899M, GM Heavy Truck
- * Hyundai
- * JIS K2234
- * Kenworth RO26-170-97
- * Landrover
- * MACK Trucks
- * MAN 324
- * Mercedes Benz DBL 325
- * MTU MTL 5048
- * New Holland WSN-M97B18-D
- * PACCAR
- * Peterbilt 8502.002
- * US Federal A-A-870-A
- * Perkins
- * Saab-Scania 6901
- * SAE J1034, J1941
- * TMC RP 329
- * Volvo Heavy Truck
- * White Star

NOTE:

Use Directly from container – **DO NOT** Dilute with water.

When topping up cooling systems filled with Tx HDD-N Antifreeze Red coolant ALWAYS use Tx HDD-N Antifreeze Red Premix.

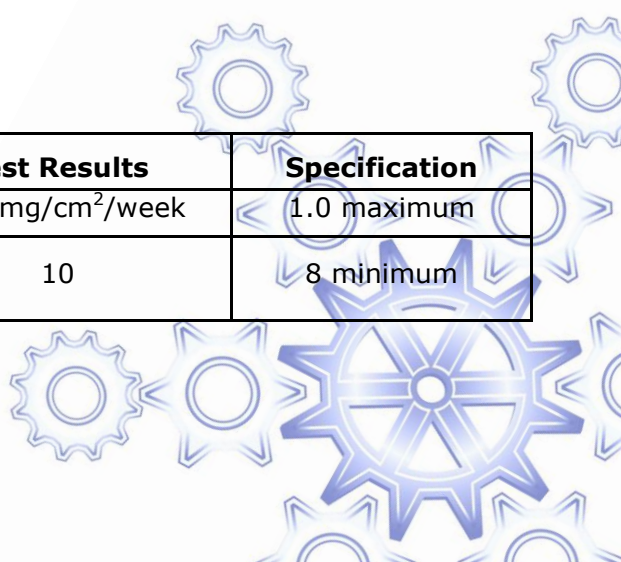
Performance Testing

Coupon	ASTM D-1384 Glassware Corrosion		ASTM D-2570 Simulated Service	
	Test Results ¹	Max. Spec. ¹	Test Results ^{1,2}	Max. Spec. ¹
Copper	1.7	10	1.1	20
Solder ³	4.3	30	21.6	60
Brass	0.6	10	1.6	20
Steel	0.1	10	+0.8	20
Cast Iron	+0.8	10	+1.2	20
Aluminium	+0.3	30	+2.5	60

- 1. Wt. /loss coupon in mg
- 2. Copper/brass radiator results
- 3. Regular 70/30 lead on copper/brass coupons.

Dynamic Performance Testing

ASTM Test Procedure	Test Results	Specification
D4340 Heat Rejecting Aluminium Corrosion	0.16 mg/cm ² /week	1.0 maximum
D2809 Aluminium Water Pump Cavitation-Erosion Corrosion (rating from 1 to 10)	10	8 minimum



Typical Physical and Chemical Characteristics

Test	Performance	Test Method
pH	7.6 - 8.5	ASTM D-1287
Reserve Alkalinity (ml)	3 min.	ASTM D-1121
Specific Gravity (15.6°C/60°F)	1.065 - 1.075	ASTM D-1122
Freeze Point	-37°C/-34°F	ASTM D-1177
Foam Volume (ml)	50 max.	ASTM D-1881
Break Time (sec)	5 max.	ASTM D-1881
Flash Point	116°C/240°F	ASTM D-92
Fire Point	120°C/248°F	
Ash Content (wt. %)	2.5 max.	ASTM D-1119
Odour	Characteristic	
Colour	Strawberry Red	
Total Glycols (Weight %)	50.0 min.	
Inhibitors and dye (Weight %)	2.5 max.	
Chloride ppm	25 max.	ASTM D-3634
Silicon (ppm)	93 max.	ICP

These characteristics are typical of current production. Whilst future production will conform to specification, variations in these characteristics may occur. Shelf-life stability: minimum 2 years from date of manufacture

Health & Safety

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from your TransDiesel representative.

Protect the environment

Take used coolant products to an authorized collection point. Do not discharge into drains, soil or water.

Extended Shelf Life

When stored undercover, away from moisture and direct sunlight, this product should be suitable for use for up to two years after manufacture. Product should not be left in open unsealed containers due to possible water loss.

**Marketed in New Zealand by
TransDiesel Ltd
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