



# PROFESSIONAL HEAVY DUTY ANTIFREEZE/ COOLANT

COMPATIBLE WITH ALL ENGINE COOLANT TECHNOLOGIES  
NITRITE, AMINE & PHOSPHATE FREE

**PRO SHIELD**  
OAT CORROSION DEFENSE™

## EXTRA MIXED-FLEET GLOBAL EXTENDED LIFE

FOR ALL VEHICLES; AUTOMOTIVE,  
LIGHT TRUCK & HEAVY DUTY DIESEL

UP TO  
 **5** YEARS / **250,000 KM**  
**150,000 MILES**

UP TO  
 **6** YEARS / **960,000 KM**  
**600,000 MILES**

## ENGINEERED TO GIVE YOU EXTRA

HD Extra is specifically designed for complete mixed fleet use in all makes and models both foreign and domestic, for light duty and heavy duty diesel.

### FORMULATION FEATURES & BENEFITS:

**Extended Service Life:** Provides up to 250,000 km, 150,000 miles, or 5 years (Automotive Light Duty); and up to 960,000 km, 600,000 miles, 12,000 hours or 6 years (Heavy Duty Diesel) under normal operating conditions provided the coolant is kept in good condition and in line with the engine's OEM's requirements.

**Wide Application:** Designed for complete "Mixed Fleet" use in all makes and models of passenger vehicles, light duty and heavy duty diesel vehicles including on-road, off road, construction and farm applications. This nitrite-free product eliminates the need to carry multiple coolants to service different engines, providing for added value.

**Proven Protection:** It provides protection against rust and corrosion for all coolant system metals, including aluminum, excellent protection against wet sleeve liner cavitation pitting and is compatible with all aluminum radiators found in today's engine cooling systems.

**Field Compatibility:** Compatible with ALL engine coolant technologies on the market today, EXTRA is well suited for top-up of both conventional and extended life coolants (ELC). As it is nitrite-free, it is compatible with, but does not necessarily need or require the addition of SCA or Coolant Extenders and generally can tolerate hard water.

**Powered by ProShield OAT Corrosion Defense:** Our proprietary OAT corrosion inhibitor system, ProShield is engineered for new cooling systems, offering protection against corrosion and deterioration, providing excellent high temperature aluminum and liner cavitation protection. This level of protection affords a lower overall operating costs compared to other coolants. This low silicate product is 2-EHA, Nitrite, Amine, Borate & Phosphate free.

**All Climate Performance:** Provides protection against low temperature freeze-up or high temperature boil-over and suitable for all season use throughout winter and summer. When used as 50% diluted with high quality water, provides freeze protection down to -37°C/-34°F and boil-over protection up to +132°C/+269°F (with the use of a 100 kPa pressure cap). Available in Concentrate and 50-50 Pre-diluted formats.



[Recochem.com](http://Recochem.com)

## EXTRA

MIXED-FLEET GLOBAL EXTENDED LIFE



[HDExpert.com](http://HDExpert.com)



# PROFESSIONAL HEAVY DUTY ANTIFREEZE/COOLANT

**EXTRA Mixed-Fleet Global Extended Life** protects against rust and corrosion for all coolant system metals, including aluminum; offers excellent protection against wet sleeve liner cavitation pitting and is compatible with all aluminum radiators found in today's engine cooling systems. Designed for complete mixed fleet use EXTRA is recommended for all makes and models of passenger vehicles, light duty and heavy duty diesel vehicles (on-road, off road, construction, farm applications).

## Approvals & Specifications

Meets or exceeds performance requirements of:	Recommended and suitable for use with:		
<ul style="list-style-type: none"> <li>• ASTM D3306, D6210, D7583</li> <li>• TMC RP 364</li> </ul>	<ul style="list-style-type: none"> <li>• Caterpillar</li> <li>• Chrysler MS-7170/MS-9769</li> <li>• CNHi MAT 3724/3624</li> <li>• Cummins CES 14603/14439/14636</li> <li>• DAF 74002</li> <li>• DDC 7SE 298, 93K217</li> <li>• Daimler Truck DTFR 29C120/29D120</li> <li>• Deutz DQC CC-14</li> <li>• Freightliner</li> </ul>	<ul style="list-style-type: none"> <li>• GM 1825M, 1899M</li> <li>• International Truck</li> <li>• JCB STD00088</li> <li>• Kenworth</li> <li>• Kobelco</li> <li>• Kubota</li> <li>• Liebherr</li> <li>• Mack</li> <li>• MAN 324 Typ Si-OAT</li> </ul>	<ul style="list-style-type: none"> <li>• MB Approval 325.5 / 326.5</li> <li>• MTU MTL 5048</li> <li>• PACCAR</li> <li>• Peterbilt</li> <li>• Scania</li> <li>• Volvo Truck</li> <li>• VW TL 774-G</li> </ul>

## Typical Physical and Chemical Characteristics

CHARACTERISTIC	PERFORMANCE		TEST METHOD
	CONCENTRATE	50-50 PREMIX	
Appearance	Clear and transparent fluid	Clear and transparent fluid	Visual
Colour	Pale Yellow	Pale Yellow	Visual
pH	7.8 – 9.0	7.8 – 9.0	ASTM D1287
Reserve Alkalinity, ml	3.0 min.	1.5 min.	ASTM D1121
Specific gravity	1.115 – 1.135	1.065 - 1.085	ASTM D1122
Freeze point, °C/°F	60/40: -52/-61 70/30: -64/-83	-37/-34	ASTM D1177
Foam volume, ml	50 max.	50 max.	ASTM D1881
Foam break time, second	5 max.	5 max.	ASTM D1881
Chloride, ppm	< 25	< 25	ASTM D3634
Silicon	< 250	< 130	ASTM D6130
Phosphate	< 10	< 10	ASTM D5827
Nitrite	< 10	< 10	ASTM D5827
Shelf Life, (Unopened, original container)	5 years	5 years	

These characteristics are typical of current production. While future production will conform to Recochem's specification, variations in these characteristics may occur.



# PROFESSIONAL HEAVY DUTY ANTIFREEZE/COOLANT Dilution Chart

Protection against Freezing (°C/°F)	-37 / -34	-52 / -61	-64 / -83
Volume % Antifreeze	50	60	70
Volume % Deionized Water	50	40	30
**Protection against Boil-Over (°C/°F)	129 / 264	132 / 269	136 / 276

\*\*\*with a 100 kilopascals (15 psi) radiator cap in good condition

Coolant concentrate must be diluted with water prior to use. Antifreeze/Coolant should not be used in concentrated form. A 50% dilution is generally recommended for the best balance of protection against freezing, corrosion and summer boil-over. For increased freeze protection in extremely cold areas, a 60% volume concentration can be used. Concentrations of greater than 70% by volume are not recommended. High quality soft, de-ionized or distilled water should always be used to dilute coolant concentrate.

## Typical Coolant Performance Testing Results

METAL TYPE	ASTM D 1384 GLASSWARE CORROSION		ASTM D 2570 SIMULATED SERVICE	
	Test Results <sup>1</sup>	Max. Spec.	Test Results <sup>1</sup>	Max. Spec.
Copper	0	10	1	20
Solder	0	30	18	60
Brass	0	10	1	20
Steel	0	10	1	20
Cast Iron	0	10	1	20
Aluminum	-1	30	1	60

<sup>1</sup> Weight loss, except minus signs which indicate weight gain, per coupon in milligrams. Values are for coolant made from virgin ethylene glycol

## Typical Coolant Performance Testing Results (continued)

	Test Results	Specification
ASTM D4340 Heat Rejecting Aluminum Corrosion (mg/cm <sup>2</sup> /week) <sup>2</sup>	-0.1	1.0 maximum
ASTM D2809 Aluminum Water Pump Cavitation – Erosion Corrosion Rating	9	8 minimum
ASTM D7583 Deere Liner Cavitation Test	Pass	200 maximum

<sup>2</sup> Weight loss per coupon in milligrams (average for 2 tests). Values are for coolant made from virgin ethylene glycol



# PROFESSIONAL HEAVY DUTY ANTIFREEZE/COOLANT

## Product Packaging Specifications

### CANADA

Item No.	Formulation	Container Size	Case Pack	UPC	SCC
16-314	Concentrate	3.78 L	4	0-56438-16314-5	400-56438-16314-3
16-324	50-50 premixed	3.78 L	4	0-56438-16324-4	400-56438-16324-2
16-325	50-50 premixed	9.46 L	2	0-56438-16325-1	500-56438-16325-6

### USA

Item No.	Formulation	Container Size	Case Pack	UPC	SCC
86-324	50-50 pre-diluted	1 gal	4	0-56438-86324-3	400-56438-86324-1

### DRUM/TOTE

Item No.	Formulation	Container Size	Case Pack	UPC	SCC
26-319	Concentrate	208 L / 55 gal	NA	0-56438-90795-4	NA
26-329	50-50 premixed	208 L / 55 gal	NA	0-56438-90796-1	NA
26-319-1000	Concentrate	1000 L / 264 gal	NA	0-56438-90797-8	NA
26-329-1000	50-50 premixed	1000 L / 264 gal	NA	0-56438-90798-5	NA

#### Warranty:

When added as an initial fill and properly maintained in accordance with engine manufacturer's maintenance recommendation, this product will provide an in-service life of up to 250,000 km/150,000 miles or 5 years (Automotive Light Duty); 960,000 km/600,000 miles, 12,000 hours or 6 years (Heavy Duty Diesel), whichever comes first. While deleterious effects are not expected to be significant, mixing with conventional coolants will result in a lower than expected lifetime.

#### Handling, Storage & Shelf Life

Product should be stored in original container or appropriate dedicated tank or vessel. Although temperature fluctuations will not adversely affect coolant, unused coolant should be stored at ambient conditions. Under typical conditions and when the container integrity is maintained, product can be stored for up to 5 years without any adverse effect on quality. Product should be agitated before use.

#### Health, Safety & Environment

For detailed information and recommended practices related to Health and Safety, please refer to the appropriate Safety Data Sheet (SDS).

New or spent coolant is never to be disposed of into a septic system, storm sewer or onto the ground. Always dispose coolant in accordance with local, provincial/ state and federal guidelines. Contain any spilled coolant and contact appropriate authorities on appropriate clean-up instructions.

**NOTICE:** This product is shipped in compliance with applicable laws and regulations regarding classification, packaging, shipping and handling. The performance and physical property data described for this product are typical results not sale specifications, except where maximum or minimum is indicated. Refer to Safety Data Sheets for further information.

Because use conditions and applicable laws may differ from one location to another and may change with time, the customer is responsible for determining whether product and the information in this document are appropriate for their use and for ensuring that their workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Recochem's warranty is limited to the claims of product meeting stated performance specifications. It is the responsibility of the end-user to determine product suitability as recommended in the owner's manual and to follow engine manufacturer's instructions.