



Rotella® Ultra ELC Coolant Pre-Diluted 50/50

Next Generation OAT Extended Life, NAP-Free heavy-duty ethylene glycol engine coolant premixed and ready to use

Rotella Ultra ELC Coolant Pre-Diluted 50/50 is an extended life ethylene glycol coolant for heavy duty diesel, gasoline, and natural gas powered engines. Rotella Ultra ELC Coolant Pre-Diluted 50/50 contains OAT corrosion inhibitor technology that provides effective corrosion protection of engine and cooling system metals. The product is free of nitrites, amines, phosphates (NAP), borates and silicates. Rotella Ultra ELC Coolant Pre-Diluted 50/50 is suitable for both heavy and light duty applications without supplemental coolant additives (SCAs), making it ideal for use in mixed fleet applications. Rotella Ultra ELC Coolant Pre-Diluted 50/50 is premixed and ready to use. It requires no further dilution. In markets outside North America where Rotella Ultra ELC Coolant Pre-Diluted 50/50 is not available, use Shell HD Ultra ELC Coolant Pre-Diluted 50/50.

Applications

Heavy duty gasoline or diesel engine antifreeze

Rotella Ultra ELC Coolant Pre-Diluted 50/50 is formulated to be an extended life coolant in heavy duty applications, found in on-road, off-road, marine, farm, mining and construction equipment.

Rotella Ultra ELC Coolant Pre-Diluted 50/50 contains organic additive technology corrosion inhibitors along with molybdate to provide extra protection to cylinder liners found in heavy-duty applications. It will not require an initial charge or additional supplemental coolant additives (SCAs) in the future.

Rotella Ultra ELC Coolant Pre-Diluted 50/50 also provides protection in light duty engines making it highly suitable for mixed fleets (light duty as well as heavy duty gasoline and diesel engines).

Performance Features and Benefits

- **All-Climate Year Round Performance**
As sold, Rotella Ultra ELC Coolant Pre-Diluted 50/50 provides freeze protection down to -34.6°F and boil over protection up to +265°F (with the use of a 15 lb. pressure cap).
- **Extended Life Capability**
Rotella Ultra ELC Coolant Pre-Diluted 50/50 typically provides up to 12,000 hours or 600,000 miles in heavy duty applications under normal operating conditions, provided the

coolant is checked and kept in good condition.

- **Field Compatibility**

Rotella Ultra ELC Coolant Pre-Diluted 50/50 is miscible and compatible with other engine antifreeze of similar type; although to get the best performance from the long life capabilities, it is always recommended to not dilute Rotella Ultra ELC Coolant Pre-Diluted 50/50 with other coolants. It is also compatible with standard heavy duty SCAs, coolant filters and hard water should circumstances dictate its use in that environment.

Rotella Ultra ELC Coolant Pre-Diluted 50/50 is part of the Shell family of heavy-duty lubricants and coolants for the heavy-duty market.

Specification and Approvals

Rotella Ultra ELC Coolant Pre-Diluted 50/50 has been formulated to meet the following coolant specifications and is recommended against these specifications:

OEM / Industry	Specification
ASTM	D3306, D4985, D6210
AS/NZS	2108.1:1997 "Type A"
Caterpillar	EC-1 (Sections 2.3 - 4.5 incl.)
Cummins	Bulletin 3666132 and 14603
DAF	MAT 74002

<i>OEM / Industry</i>	<i>Specification</i>
<i>Detroit Diesel</i>	<i>7SE298 and 93K217</i>
<i>Freightliner</i>	<i>48-22880,</i>
<i>General Motors</i>	<i>1825M, 1899M, Heavy Truck</i>
<i>Kenworth</i>	<i>R026-170-97</i>
<i>International Truck & Engine</i>	<i>CEMS B-1</i>
<i>JIS</i>	<i>K2234</i>
<i>John Deere</i>	<i>JDM H24</i>
<i>Landrover</i>	
<i>Mack Truck</i>	<i>014GS17004</i>
<i>MAN</i>	<i>324</i>
<i>Mercedes-Benz</i>	<i>DBL 7700</i>
<i>MTU</i>	<i>MTL 5048</i>
<i>PACCAR</i>	<i>CS0185</i>
<i>Peterbilt</i>	<i>8502.002</i>
<i>SAE</i>	<i>J1034,</i>
<i>Scania</i>	<i>TB1451</i>
<i>TMC</i>	<i>RP 329</i>
<i>Volvo</i>	

Health and Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet that can be obtained from your Shell representative.

Handling and protective measures

The usual precautions for handling chemicals must be observed. In particular the place of work must be well ventilated, the skin protected and safety glasses worn at all times. Avoid contact with the skin. This product contains a **bitterant** thus reducing the chance of accidental ingestion. The product is based on monoethylene glycol and should be protected from children and animals to prevent exposure.

Storage Requirements

Store at ambient temperatures and limit periods of exposure to temperatures above 95°F.

Protect the environment

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

Advice

Advice on applications not covered in this leaflet may be obtained from your Shell Representative.

Typical Physical Characteristics

	Rotella Ultra ELC Coolant Pre-Diluted 50/50	Test Methods
Appearance, visual colour	Yellow	Visual
Ash Content (% w/w)	2.5 Max	ASTM D 1119
Freeze point as sold	-34.6°F	ASTM D 1177
pH as sold	8.0 – 9.0	ASTM D 1287
Reserve Alkalinity (ml 0.1N HCL)	2.0 Min	ASTM D 1121
Shelf life (unused)	5 years	
Silicon as silicate (ppm)	<10	ASTM D 6130
Specific Gravity (60.08°F)	1.070 – 1.080	ASTM D 1122

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

Typical Freeze and Boilover Protection Mixing Chart

Rotella Ultra ELC Coolant Pre-Diluted 50/50	Freeze Point Protection* (°F)	Boilover Protection* (°F)
As sold	-34.6	+264.2
*Using a 15 lb. pressure cap		