



Shamrock Ultra Nitrite Free Antifreeze/Coolant

Engine manufacturers have demanded a superior extended life Antifreeze/Coolant in order to perform under higher combustion temperatures and cylinder pressures of today's low emission heavy duty engines. Shamrock Ultra Nitrite Free incorporates the latest generation Organic Acid Technology to meet these requirements. Shamrock Ultra is an all organic formulation. It contains no Nitrite, Silicate, Phosphate, Borate, or any other inorganic salt. It is also free of 2-Ethylhexanoic Acid which has proven to cause gasket and seal failures. The all organic formulation also assures that the product exceeds the low solids anti-scaling Caterpillar EC-1 requirement. Performance is further enhanced by the addition of anti-scalant, anti-fouling, and water pump lubrication additives.

Shamrock Ultra has a normal service life of 600,000 miles or 12,000 hours or 6 years, whichever comes first. However engine manufacturer service guidelines should always be followed. No additional charge is required but the fluid should be checked visually and by pH periodically. Shamrock Ultra is compatible with all other antifreeze/coolant types and therefore suitable for mixed fleets. Bitterant is added in order to prevent accidental ingestion.

Can be made with Ethylene Glycol base or environmentally favorable Propylene Glycol. Meets or exceeds the following specifications:

ASTM D3306	ASTM D4985	ASTM D4656(50%)
ASTM D5345(50%)	ASTMD6210	ASTM D6211(w/PG)
TMC of ATA RP329/330/338	Caterpillar EC-1	Case Corp MS1710
Chrysler MS-7170	Cummins 14603	Cummins 90T8-4
Detroit Diesel 7SE298	Federal A-A 870	Ford ESD-M97B44-A
Ford New Holland 9-86	Freightliner 48-22880	GM1899M
GM6043	John Deere H-5	John Deere 8650-5
Navistar B1 (B5-009GO)	Mack Truck 014GS17004	Mercedes

Typical Properties(when mixed to 50% with Deionized water):

Parameter	Method	Typical Value with 50% water
Specific Gravity	D1122	1.115
Foam Test	D92	250F Min.
Foam Test	D1881	45 ml/2.7 sec., Max
pH	D1127	7.9-8.6
Reserve Alkalinity	D1121	8.0 M
Freeze Point	D1177	Minus 34F
Boiling Point	D1120	263F Min
Glassware Corrosion Test	D2809	Pass
Aluminum Corrosion Test	D4340	Pass
Simulated Service Test	D2570	Pass