



DefendAL™ Heavy Duty Pre-Charged Antifreeze/Coolant

DefendAL™ Heavy Duty Pre-Charged Antifreeze/Coolant with SCA (Supplemental Coolant Additives) is made from industrial and antifreeze grade virgin ethylene glycol and industry leading additive components. It is pre-charged with the initial SCA treatment as recommended by most diesel engine manufacturers and the TMC maintenance council. KOST® USA manufactures and distributes this product from strategic locations servicing the entire continental United States. DefendAL™ Heavy Duty Pre-Charged Antifreeze/Coolant is also available pre-diluted 50/50 with de-ionized filtered water, making it easier to assure proper coolant mixture for top off and cooling system fill. DefendAL™ Heavy Duty Pre-Charged Antifreeze/Coolant is a low silicate no phosphate formula.

PROPERTIES	METHOD	Concentrate	50/50
SPECIFIC GRAVITY @ 60/60 °F.	ASTM D 1122	1.125	1.065
BOILING POINT	ASTM D 1120	327 °F.	227° F.
FREEZE POINT, °F.	ASTM D 1177	-34° Maximum	-34 Maximum
FOAM TEST	ASTM D 1881	45 ml/ 2.7 seconds	45 ml/ 2.7 seconds
pH, 50% VOLUME SOLUTION	ASTM D 1287	10.4	10.4
RESERVE ALKALINITY	ASTM D 1121	6.8 ml	3.5 ml
TOTAL WATER	ASTM D 1123	4.8%	52.5%
TOTAL GLYCOLS	ASTM D 202	95.0% Minimum	47.5% Minimum
SILICON CONTENT		230 ppm	115 ppm
NITRITE CONTENT		2800 ppm	1400ppm
OTHER HEAVY-DUTY INHIBITORS		1750 ppm**	875ppm
**This includes Nitrate and Borate Content			
Product Number		9027	9028

DEFENDAL HEAVY DUTY PRE-CHARGED MEETS THE PERFORMANCE REQUIREMENTS AND SPECIFICATIONS FOR AFTERMARKET ANTIFREEZE/COOLANTS INCLUDING:

<u>AUTOMOBILE:</u>	<u>HEAVY-DUTY:</u>
ASTM D-3306, ASTM D-4340	ASTM D-4985, ASTM D-6210 , TMC RP 302B, 329
Chrysler MS 7170	GM 1899M (Non-Aluminum)
Ford ESE-M97B44-A, Sec. 3.1.1 & 3.1.2	Ford ESE M97BI8-C
GM 1825M (Aluminum)	SAE J1941
	Detroit Diesel 7SE298, Powercool, Powercool 3000
GSA A-A-52624-A	Caterpillar Heavy Duty Coolant (DEAC)
SAE J1034, J814, J1941	John Deere H24A1, H24B1, H24C1 H5
VW TL 774 (G11)	Peterbilt, Kenworth
MIL-0-A-5480	Cummins 90T8-4, CES 14603, CES 60049
Porsche TL774C	Freightliner 48-22880
<u>HEAVY-DUTY:</u>	Mack Truck 014G, S17004
Ford New Holland WSN-M97D18D	CID A-A-52624
CASE JIC-501, MS1710	GSA A-A-52624, Type II
Navistar BI, TYPE II	ASTM D-1384 Glassware Corrosion Test , VWTL774D (G12), RED
	ASTM D-2570 Simulated Service Corrosion Testing