

KOSTUSA

DefendAL®

Heavy Duty Pre-Charged Coolant/Antifreeze

Approved for use in all heavy duty diesel engines requiring SCAs

No initial SCA pre-charge required

Phosphate-free, low silicate formulation

DefendAL® Heavy Duty Pre-Charged Coolant/Antifreeze is a premium quality, conventional technology ethylene glycol-based fluid. The product is specially formulated with industry-leading additives to provide optimum performance in heavy duty vehicles requiring supplemental coolant additives (SCAs).

Available in:

Concentrate

Bulk #10225

Totes #10223

Drums #10230

Cases #10849

50/50 Premix

Bulk #10240

Totes # 10235

Drums #10245

Cases #10125



Think of our products as
Liquid Assets.™

DefendAL® Heavy Duty Pre-Charged Coolant/Antifreeze is your cooling system's best defense.

- Contains nitrites for superior wet sleeve liner cavitation protection.
- Provides maximum freeze and boil-over protection.
- Designed for heavy duty applications, yet can be used in automotive applications where conventional technology coolants are acceptable.
- Phosphate-free with low silicates.
- Effective, long-term corrosion protection for steel, solder, copper, iron, brass and aluminum.
- High-quality defoamer system, non-harmful to hoses, plastics or gaskets.
- Compatible with all major American brands of conventional coolants, with and without the addition of SCAs.*
- Appropriate for use in on- and off-road diesel engines, as well as in stationary engine applications where a conventional pre-charged coolant is required.

*SCA levels will need maintaining throughout the life of the engine. Consult your vehicle's owner's manual for recommendations.

KOST® USA, Inc. recommends to always properly dispose of spent coolant. Contact your state or local municipality for instructions on proper disposal to protect our environment. If a coolant spill occurs, call local authorities and ask for proper instruction on how to clean up the spill.





Heavy Duty Pre-Charged Coolant/Antifreeze

Performance Specifications*

AGCO (Massey Ferguson) M1130A
 ASTM D3306
 ASTM D4985
 ASTM D6210
 BS 6580:2010
 Buhler Versatile 86050054
 CAT DEAC/ NGE
 CID-A-52624A
 Chrysler MS-7170
 CNH MAT 3620 (87692740)
 Cummins CES 14603
 Daimler DBL 7700.00
 Daimler DBL 7700.10
 Daimler DBL 7700.20
 DDC 93K217
 EMD MI 1748F
 Ford ESE-M97B18-C
 Ford ESE-M97B44-A
 GM 1825M
 GM 6038M
 GM 1899M
 GET-2594F (MI-09500)
 JCB STD00088
 Jenbacher 1000-201
 John Deere JDM H24A
 John Deere JDM H24B, C
 John Deere JDS-G135
 Liebherr
 Mack GS17004
 MTU 5048
 MWM Deutz TR0199-99-1115
 Navistar CEMS B-1 Type I
 Navistar CEMS B-1 Type II
 Perkins (CAT)
 SAE J1034
 SAE J1941
 TMC RP 302A
 TMC RP 302B
 TMC RP 303C
 TMC RP 329
 Volvo Coolant VCS
 Waukesha 4-2429H
 Wisconsin Motors (Continental)

Always consult your vehicle's owner's manual for proper fluid removal and flushing procedures.

*Meets performance requirements but may or may not meet certain chemical requirements.

	ASTM Method	Concentrate	50/50
Glycols Content, mass %	GC	96.5	49
Bittering Agent (yes/no)		Yes	Yes
Water Content, mass %	D1123	2	50
Corrosion Inhibitor System, mass %		2	1
Specific Gravity @ 60°F	D1122	1.125	1.075
Flash Point	D97	240°F (116°C)	N/A
pH	D1287	10.8	10.5
RA	D92	5.6	2.8
Storage Stability		1 year	1 year
Effect on Non-Metals	D1882	No Effect	No Effect
Cavitation Erosion Rating	D2809	8 min	8 min
Foam Test, ml/sec	D1881	<50/3	<50/3
Fluid Color	Visual	Fuchsia	Fuchsia
Coolant/Antifreeze % 40/60 Freeze Point	D1177	-24°F (-12°C)	N/A
Coolant/Antifreeze % 50/50 Freeze Point	D1177	-34°F (-36°C)	-34°F (-36°C)
Coolant/Antifreeze % 60/40 Freeze Point	D1177	-62°F (-52°C)	N/A
Coolant/Antifreeze % 40/60 Boil Point	D1120	221°F (105°C)	N/A
Coolant/Antifreeze % 50/50 Boil Point	D1120	226°F (108°C)	226°F (108°C)
Coolant/Antifreeze % 60/40 Boil Point	D1120	234°F (112°C)	N/A
Ash Content	D1119	<5.0	<2.5
Chloride (mg/L)	D3634	<25	<25
Silicon Content (mg/L)	D6130	<250	<125
Nitrite Content (mg/L)	D5827	2550	1250
Nitrate Content (mg/L)	D5827	600	300

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Our products are cool.

Our people are warm.

KOST® USA, Inc. is the largest family-owned manufacturer, supplier and marketer of antifreeze and functional fluids in the United States. Founded in 1985, our headquarters and manufacturing facility is strategically located in Cincinnati, Ohio. We build our customers' brands and our own brands through high performance products and superior service, focusing primarily in the Automotive & Heavy Duty retail aftermarket, as well as in the Oil & Gas sector.

It's more than business... it's personal.