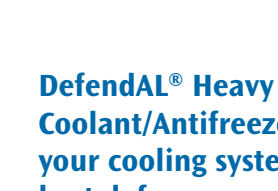


KOSTUSA

DefendAL®

Heavy Duty Extended Life Coolant/Antifreeze



Approved for use in all heavy duty diesel engines
No addition of SCAs required
1,000,000 mile | 20,000 hour protection
Meets CAT EC-1 requirements

DefendAL® Heavy Duty Extended Life Coolant/Antifreeze is a premium quality Nitrite Organic Acid Technology (NOAT) ethylene glycol-based fluid. Specially formulated with industry-leading additives, this product provides extended service maintenance protection in heavy duty applications without the addition of SCAs.

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

- Extended service life of 1,000,000 miles on-road | 8 years or 20,000 hours of off-road use.*
- Offers excellent wet sleeve liner cavitation protection, with a nitrite and molybdate additive combination.
- Contains better heat transfer properties than conventional coolants requiring SCAs.
- Eliminates maintenance with no SCAs required.
- Provides maximum freeze and boil-over protection.
- Free of phosphates, silicates and amines.
- Extended life 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 extended life Organic Acid Technology (OAT)-type coolant/antifreeze.

*HD Extender may be needed based on test results.

Available in:

Concentrate

- Bulk #10262
- Totes #10260
- Drums #10263
- Cases #10264

50/50 Premix

- Bulk #10279
- Totes #10277
- Drums #10280
- Cases #10281



Think of our products as **Liquid Assets.**



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 Extended Life Coolant/Antifreeze

Performance Specifications*

AGCO (Massey Ferguson) M1130A	Komatsu KES 07 892 Liebherr
ASTM D3306	Mack GS17004
ASTM D6210	MAN 324 Type N
BS 6580:2010	MAN 324 Type SNF
CAT EC-1	MTU 5048
CID-A-52624A	MWM Deutz
CNH MAT 3620 (87692740)	TR0199-99-1115
Daimler DBL 7700.30	MWM Deutz TR0199-99-2091
DDC 93K217	Navistar CEMS B-1 Type I
EMD MI 1748F	Navistar CEMS B-1 Type II
GM B 040 1065 - GM 6277M	Navistar CEMS B-1 Type III
GM 6277M (DEX-COOL®)**	Perkins (CAT) SAE J1034
GM 1825M	SAE J1941
GM 6038M	TMC RP 302A
GM 1899M	TMC RP 302B
Hino Trucks	TMC RP 303C
IVECO Standard 18-1830	TMC RP 329 TMC RP 338A
JCB STD00088	Volvo Coolant VCS
Jenbacher 1000-201	Waukesha 4-2429H
John Deere JDM H24A	Wisconsin Motors (Continental)
John Deere JDM H24B, C	
John Deere JDS-G135	

	ASTM Method	Concentrate	50/50
Glycols Content, mass %	GC	93	47
Bittering Agent (yes/no)		Yes	Yes
Water Content, mass %	D1123	2	50.5
Corrosion Inhibitor System, mass %		5	2.5
Specific Gravity @ 60°F	D1122	1.122	1.075
Flash Point	D97	240°F (116°C)	N/A
pH	D1287	8.7	8.5
RA	D92	4.5	2.8
Storage Stability		5 years	5 years
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	Red	Red
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
Silicate (SO ₃) (mg/L)	D6130	<10	<10
Nitrite Content (mg/L)	D5827	1050	600
Molybdate Content (ppm)	D6130	1650	900

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.

**DEX-COOL® is a registered trademark of the General Motors Corporation®.

All reasonable care has been taken to ensure that the information herein is accurate as of the date of printing. Freedom to use any patent owned by KOST® USA, Inc. or others is not to be inferred from any statement contained herein. The test results listed are typical properties only. Formula and blending changes may result in slight color and appearance changes.



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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.