

KOST USA
DefendAL®

Global Heavy Duty Extended Life Coolant/Antifreeze



Approved for use in all makes and all models of foreign and domestic passenger vehicles and light duty trucks

Compatible with any coolant/antifreeze, regardless of color
 5 years | 150,000 miles protection

DefendAL® Global Heavy Duty Extended Life Coolant/Antifreeze is a premium quality global Hybrid Organic Acid Technology (HOAT) ethylene glycol-based fluid, specially formulated with industry-leading additives to provide optimum performance in gasoline engines, light duty diesel engines, and heavy duty applications. The product can also be used with, and is compatible with, fluids formulated for use in vehicles requiring DEX-COOL®* (GM 6277M) coolant.

Available in:

Concentrate
 Bulk #10286
 Totes #10285
 Drums #10287
 Cases #10288

50/50 Premix

Bulk #10290
 Totes #10289
 Drums #10291
 Cases #10292



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

- *One fleet. One fluid.* User-friendly fluid color and product formulation allows for top-off of any fluid color and fluid consolidation.
- Specifically formulated for use in automobiles and light duty diesel engines.
- Contains a combination of nitrite and molybdate additives to provide superior wet sleeve liner cavitation protection.
- Better heat transfer properties than conventional coolants requiring SCAs.
- No initial SCA precharge required.
- Eliminates the need for SCAs at initial fill and when topping off.
- Provides maximum freeze and boil-over protection.
- Phosphate-free with low silicates.
- 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 conventional and extended life Organic Acid Technology (OAT)-type coolant/antifreeze.

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

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.



Think of our products as
Liquid Assets.™



Global Heavy Duty Extended Life Coolant/Antifreeze

Performance Specifications*

AGCO (Massey Ferguson) M1130A	JCB STD00088
ASTM D3306	Jenbacher 1000-201
ASTM D6210	John Deere JDM H24A
BS 6580:2010	John Deere JDM H24B, C
Buhler Versatile 86050054	John Deere JDS-G135
CAT DEAC/NGECEC	Kia MS 591-08
CAT EC-1	Komatsu KES 07 892
CID-A-52624A	Liebherr
Chrysler MS-7170	Mack GS17004
CNH MAT 3620 (87692740)	Mack GS17004
Cummins CES 14603	MAN 324 Type N
Daimler DBL 7700.00	MAN 324 Type NF
Daimler DBL 7700.10	MAN 324 Type SNF
Daimler DBL 7700.20	MTU 5048
Daimler DBL 7700.30	MWM Deutz TR0199-99-1115
DDC 93K217	Navistar CEMS B-1 Type I
EMD MI 1748F	Navistar CEMS B-1 Type II
Ford ESE-M97B18-C	Navistar CEMS B-1 Type III
Ford ESE-M97B44-A	Nissan
Ford WSS-M97B44-D	Perkins (CAT)
Ford WSS-M97B51-A1	SAE J1034
Ford WSS-M97B55-A	SAE J1941
GM B 040 1065 - GM 6277M	TMC RP 302A
GM 6277M (DEX-COOL®)**	TMC RP 302B
GM 1825M	TMC RP 303C
GM 6038M	TMC RP 329
GM 1899M	TMC RP 338A
GET-2594F (MI-09500)	Toyota TSK 26016
Hino Trucks	Volvo Coolant VCS
IVECO Standard 18-1830	VW TL774-C
	Waukesha 4-2429H
	Wisconsin Motors (Continental)

	ASTM Method	Concentrate	50/50
Glycols Content, mass %	GC	93.5	47
Bittering Agent (yes/no)		Yes	Yes
Water Content, mass%	D1123	2.5	51
Corrosion Inhibitor System, mass %		4	2
Specific Gravity @ 60°F	D1122	1.133	1.08
Flash Point	D97	240°F (116°C)	N/A
pH	D1287	8.8	8.5
RA	D92	11	5.5
Storage Stability		2 years	2 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	Yellow	Yellow
Coolant/Antifreeze % 40/60 Freeze Point	D1177	-12°C (-24°F)	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	1300	650
Nitrate Content (mg/L)	D5827	3500	1750
Molybdate Content (ppm)	D6130	1300	650

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.

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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.