



PERFORMANCE PLUS OILS AND LUBRICANTS
PERFORMANCE UNDER THE MOST EXTREME CONDITIONS



AUTOMOTIVE ENGINE | AUTOMOTIVE DRIVELINE | HEAVY DUTY ENGINE | HEAVY DUTY DRIVELINE | HYDRAULIC | GEAR OILS | GREASES | INDUSTRIAL LUBRICANTS | ANTIFREEZE

**LD/HD EXTENDED SERVICE INTERVAL HOAT
50/50 PRE-DILUTED ANTIFREEZE/COOLANT**

Performance Plus® LD/HD Extended Service Interval HOAT antifreeze/coolant is formulated for use in domestic and foreign passenger cars, light-duty trucks, and heavy-duty diesel trucks requiring a low silicate, phosphate free hybrid organic acid technology (HOAT) type antifreeze/coolant. Fully formulated for heavy-duty diesel applications, this product does not require the addition of supplemental coolant additive (SCA) at initial fill. Contains industry-recommended concentration of nitrite to protect diesel engine cylinder liners from cavitation corrosion (liner pitting).

PERFORMANCE PLUS PROPERTIES	
Relative Density 60°F (15.5°C)	1.065 to 1.085
Freeze Point, °F (°C)	-34 (-37) max
Boiling Point, °F (°C)	226 (108) min
Ash Content, mass %	< 2.5
pH	10 to 11
Chloride, ppm	< 25
Nitrite (as NO ₂ ⁻), ppm	> 1,200
Sulfate, ppm	< 50
Effect on Automotive Finish	No Effect
Service Interval: Cars/Light-duty truck*	3 yrs. / 60,000 miles (96K km)
Service Interval: Heavy-duty diesel*	60,000 miles or 3 yrs. / 300,000 miles (480K km)*
Color	Yellow
Bittering Agent, ppm	30 to 50

Approvals and Specifications

Performance Plus® LD/HD Extended Service Interval HOAT was tested against and meets the following specifications:

- ASTM D6210
- ASTM D4985
- ASTM D3306
- TMC RP 329

Performance Plus® LD/HD Extended Service Interval HOAT is suitable for use and recommended for use in many OEM applications (where applicable**).

*With ongoing monitoring using nitrite test strips and compatible SCA/slow release chemical filter.
+Requires a complete cooling system flush and fill, and on-going OEM specified maintenance.

Note: Values shown above are representative of current production and may vary within modest ranges

**Information regarding recommended maintenance and equipment operating conditions can be found by referencing Original Equipment Manufacturer's (OEM) antifreeze/coolant recommendations.

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Features and Benefits: Performance Plus Antifreeze/Coolants deliver the protection and performance demanded by today’s light duty and heavy duty vehicles. Tested, proven, and trusted quality are why those demanding the best, turn to Performance Plus. Additionally, Performance Plus LD/HD Extended Service Interval HOAT Antifreeze/Coolant offers the following benefits:

- Versatile for various applications
- Fully formulated for heavy duty diesel applications
- Exceptional heat transfer and anti-scaling properties
- Superior properties
- Excellent multi-alloy protection

- Gasoline and Heavy Duty diesel engines
- Does not require the addition of SCA at initial fill
- Preventing hard water mineral build-up
- Protecting components during critical wear conditions
- Protecting against corrosion of aluminum, brass, cast iron, copper, solder, and steel

Proven and Trusted: The foundation of all Performance Plus products is the tested, proven and trusted quality. Every production batch of Performance Plus Antifreeze/Coolant is tested in a laboratory against industry specifications prior to distribution. This focus on quality is why hundreds of thousands of vehicle and stationary engine owners/operators across North America trust Performance Plus to protect their engine cooling systems.

PERFORMANCE PLUS PROPERTIES		SPECIFICATIONS	PERFORMANCE
Corrosion in Glassware: Weight Loss (mg/specimen)			
Copper Brass Steel Cast Iron	(ASTM D1384)	10 max (EA)	Pass
Solder Aluminum	(ASTM D1384)	30 max (EA)	Pass
Simulated Service Test: Weight Loss (mg/specimen)			
Copper Brass Steel Cast Iron	(ASTM D2570)	20 max (EA)	Pass
Solder Aluminum	(ASTM D2570)	60 max (EA)	Pass
Corrosion of Cast Aluminum Alloys at Heat Rejecting Surfaces			
mg/cm ² /week	(ASTM D4340)	1.0 max	Pass
Foaming			
Volume, mL	(ASTM D1881)	150 max	Pass
Break Time, seconds	(ASTM D1881)	5 max	Pass
Cavitation-Erosion Rating			
	(ASTM D2809)	8 min	Pass

Health and Safety: Information detailing health and safety associated with using the product can be found in the corresponding Safety Data Sheet (SDS) on the Performance Plus website. Ethylene glycol based antifreeze is toxic and must not be used to winterize potable water systems.

Storage: Product is stable for at least 5 years when stored in original container at ambient temperature. Agitate before use.

Disposal: All efforts should be made to protect the environment. Waste antifreeze should never be disposed of by dumping onto the ground, or into a septic system or storm sewer. Should you need any assistance with disposal, please contact your sales representative for information on Safety-Kleen’s waste antifreeze collection services.

For additional questions, please contact your Performance Plus® Products Sales Representative.

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