



Product Data Sheet

PolarZone™ Heavy Duty ESI Antifreeze/Coolant Heavy Duty and Fleet Applications

Description

PolarZone™ Heavy Duty ESI Antifreeze/Coolant is a premium quality hybrid organic acid technology (HOAT) antifreeze/coolant designed for use in heavy duty and fleet applications. This product provides an extended service life when properly maintained in accordance with engine manufactures maintenance recommendations.

This Extended Service Antifreeze/Coolant eliminates the need for Supplemental Coolant Additives (SCAs) and provides unsurpassed corrosion protection to all standard metals and protection of non-metal cooling system components. The silicate and phosphate-free formulation minimizes the occurrence of deposits and hard water scale.

Advantages

- Eliminates need for SCAs and chemically charged filters
- Provides excellent cavitation-erosion and corrosion protection
- Protects brass, copper, steel, solder, cast iron, and aluminum
- DOES NOT contain phosphates, amines, or silicates
- Unsurpassed high temperature aluminum protection
- Improved water pump life

Applications

- Mixed fleet diesel and gas heavy duty engines
- Phosphate-free requirements of European OEMs
- Silicate-free requirements of Japanese OEM

Meet or exceed the following specification standards and performance requirements:

ASTM D3306, D4985, and D6210	
<ul style="list-style-type: none"> • BMW Mercedes Blatt 325.0, 325.2 • Caterpillar CAT DEAC, EC-1, ELC • Chrysler MS7170, MS9769 • Cummins 90T8-4, CES14603 • Detroit Diesel 7SE298; DDC Powercool, DDC Powercool 3000, 7SE298; DDC Powercool Plus, Powercool Plus 6000 • Freightliner 48-22880 • GSA A-A-870A, GSA A-A-52624 • Hyundai 	<ul style="list-style-type: none"> • J.I. Case JIC-501, MS1710 • John Deere JDM H24B1, H24C1, H5 • Mack Truck 014 GS17004 • MIL O-A-5480 (superseded) • Mitsubishi • MTU MTL5048, MTL5049 • Navistar/International B-1, Type I, II, III • TMC of ATA RP302A, RP329, RP338 • Volvo 014 GS 17009

Typical Characteristics – Nemco PolarZone™ Heavy Duty ESI Antifreeze/Coolant

Properties	Method	Performance	
		ESI Pure	ESI 50:50
Colour	Appearance	Red	Red / Dark Pink
Specific gravity, 20°C (F)	Internal	1.112	1.070
pH	D1287	10.5*	>9.5*
Freeze point, °C(F)	D3321	-15(5)*	-37(-34.6)*
Boiling point, °C(F)	D3321	173(343)*	106(223)*
Nitrite, ppm	D5827	2000 – 2400*	1000 – 1200*
Carboxylate, %	Test strip	100*	n/a
Reserve Alkalinity	D1121	2 – 3*	n/a
Glycol Content %	D3321	≥97.5*	≥48

These characteristics are typical of current production, variations in these characteristics may occur. Items with “*” display our product test results from a CALA accredited lab conforming to ISO/IEC 17025.

Availability and product codes

Pack size	4x4L case	20L pail	205L drum	1,000L tote	Bulk
ESI concentrate	AEAFZ0011	AEAFZ0049	AEAFZ0073	AEAFZ0105	AEAFZ0121
ESI 50:50 prediluted	AEAFZ0010	AEAFZ0048	AEAFZ0072	AEAFZ0104	AEAFZ0120
ESI 60:40 prediluted	-	-	-		AEAFZ0136*
Availability	Year round / Speak to a Sales rep*				

Use and Storage

Coolant concentrate should be diluted prior to use. For best performance it is recommended coolant concentrate be premixed with distilled, deionized, or demineralized water. Dilution should not fall below a 40:60 (coolant/water) ratio at initial fill. Always check your vehicle manufacturer’s specifications for coolant use. Coolant typically has a shelf life of 5 to 8 years under ideal storage conditions; keep packages closed while not in use, store in a cool and dry area.

Health, Safety, & Environment

GHS compliant Safety Data Sheets are available at nemco.ca under the Safety Data Sheets. For SDS in French, please contact info@nemco.ca. This material is WHMIS 2015 classified. The SDS contains valuable information critical to the safe handling and proper use of the product. Always take used glycol to an authorized collection point. Avoid discharge into drains, soil, or water. As with any chemical, keep out of reach of children and animals.

Quality

Nemco works with respected industry suppliers for coolant additives and our ethylene glycol meets ASTM E1177. Nemco Resources Limited manufacturing facility in Winnipeg, Manitoba is proud to be certified to ISO9001. For questions regarding quality, please contact your local sales representative.