



NEW ADVANCED  
FORMULATION  
SUITABLE FOR  
AUSTRALIAN  
CONDITIONS

# ILD SAFEGUARD HD MULTI-FLEET COOLANT

**50% PRE-DILUTED**

## NOT YOUR ORDINARY HEAVY DUTY COOLANT

ILD Safeguard HD Multi-Fleet Coolant delivers the best defence in engine cooling system against rust and corrosion, highly efficient heat transfer and excellent aluminum and wet sleeve liner cavitation protection in heavy duty diesel applications. Fortified with a proven nitrite & molybdate based formula, it provides long service life for extended service intervals and aluminum compatibility while operating in the harshest environments.

Recommended for use in many off-road, earth-moving, on-road, farm and marine engine applications including Caterpillar, Cummins, MTU/Detroit Diesel, Kenworth, Volvo, Mack, Freightliner, PACCAR. The coolant is premixed at 50/50 ratio with high quality soft water to ensure optimal performance.



### LONG SERVICE LIFE

Up to 1,200,000 km, 15,000 hours or 8 years of life in heavy duty diesel engines



### ONE-FOR-ALL COOLANT

Suitable for multi-fleet sites requiring nitrated-based OAT long-life coolant. Fully compatible with CAT EC-1, Cummins and other major OEMs.



### PROVEN PROTECTION

Protects all coolant system metals even in the harshest environments and high temperatures,



### MULTI-COOLANTS COMPATIBILITY

Compatible mixing with other fully formulated engine coolants.



### LOW OPERATING COSTS & EASY MAINTENANCE

Does not require addition of SCA or extenders



# ILD SAFEGUARD HD MULTI-FLEET COOLANT

## Key features and benefits

**Long Service Life:** Up to 1,200,000 km, 15,000 hours or 8 years of life under standard operating conditions as long as the coolant is maintained according to guidelines with nitrite levels in line with the engine's OEM's requirements. No silicate drop-out or gel formation due to its silicate-free formulation.

**Suitable for Multi-Fleet Environment:** A single coolant solution suited for heavy duty diesel applications that require for nitrite-based, silicate-free OAT coolant with extended service interval. This makes it an ideal choice in meeting CAT EC-1 and many other on-road, off-road, farm and marine engine manufacturers requirements.

**Low Operating Costs and Easy Maintenance:** Formulated with proprietary OAT corrosion inhibitors package rich with nitrite and molybdate as well as free from Silicate, Borate, Amine, Phosphate and 2-EHA, the coolant provides the best defence against engine cooling system degradation in extreme conditions lowering operating and asset ownership costs. Does not require the any addition of SCA or Coolant Extenders which provides the benefits of low and easy maintenance.

**Proven Protection:** Even in the harshest environments and high temperatures, it protects all coolant system metals against rust, corrosion and pitting especially from wet sleeve liner cavitation.

**Seal Compatible:** It does not contain 2-EHA meaning it is compatible and safe to use with all coolant system seal materials for a longer lasting continued protection.

**Compatible with Other Coolants and Hard Water:** Compatible with other fully formulated engine coolants and ability to tolerate with hard water in case of accidental mixing.

## Meets and exceeds the following engine coolants specifications:

CAT EC-1 (incl. Sec. 2.3 - 4.5)	ASTM D6210	MAN 324
Cummins CES 14603	ASTM D3306	Mercedes Benz DBL 7700
Cummins 3666132	ASTM D4985	Kenworth RO26-170-97
MTU MTL 5048	ASTM D7820	Mack 014GS17009
TMC RP329B	GB 29743-2013	PACCAR CS0185
TMC RP338	GM Heavy Truck	Peterbilt 8502.002
Detroit Diesel 7SE 298	GM 1825M	Scania TB1451
Detroit Diesel 93K217	GM 1899M	Volvo Heavy Truck
SAE J1034	Navistar CEMS B-1	JIS K 2234
John Deere JDM H24	Freightliner 48-22880	AS/NZS 2108.1:1997 "Type A"



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## Typical physical and chemical properties:

Properties	Values	Test Method
Appearance, colour	Red – Orange	Visual
pH	7.5 – 9.5	ASTM D 1287
Ash content (% w/w)	5.0 max	ASTM D 1119
Reserve Alkalinity (ml)	1.5 min	ASTM D 1121
Specific gravity	1.07 – 1.08	ASTM D 1122
Flash point (°C)	116 min	ASTM D 92
Freeze point	-37 °C	ASTM D 1177
Foam volume (ml)	50 max	ASTM D 1881
Foam break time (sec)	5 max	ASTM D 1881
Chloride (ppm)	25 max	ASTM D 3634
Silicon (ppm)	10 max	ASTM D 6130
Phosphate (ppm)	10 max	ASTM D 5827
Shelf life (unopened, original container)	5 years	

## Performance testing results:

Metal type	ASTM D1384 Glassware corrosion		ASTM D2570 Simulated service	
	Test results	Max. spec	Test results	Max. spec
Copper	-2	10	4	20
Solder	-3	30	4	60
Brass	0	10	3	20
Steel	0	10	1	20
Cast iron	-2	10	3	20
Aluminium	0	30	1	60

	Test results	Specification
ASTM D4340 Heat Rejecting Aluminium Corrosion (mg/cm <sup>2</sup> /week)	0.1	1.0 maximum
ASTM D2809 Aluminium Water Pump Cavitation – Erosion Corrosion Rating	8	8 minimum
ASMT D7583 Deere Liner Cavitation Test	107	200 maximum



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## Application Note

When added as an initial fill and properly maintained in accordance with engine manufacturer's maintenance recommendation, this product will provide an in-service life of up to 1,200,000 km, 15,000 hours or 8 years, whichever comes first. While detrimental effects are not expected to be significant, mixing with other conventional coolants or hard water will result in a lower than expected lifetime.

## Handling, Storage & Shelf Life

The coolant should be stored in original container such as IBC, drum or pails, or a dedicated tank covered from the external environment. Although temperature fluctuations will not adversely affect coolant, unused coolant should be stored at ambient conditions. Under typical conditions and when the container integrity is maintained, product can be stored for up to 5 years without any adverse effect on quality. It is recommended that the product be agitated before use especially after long in storage.

## Health & Safety

Guidance on Health and Safety is available on the appropriate Safety Data Sheet, which can be obtained from your ILD representative.

## Protect the Environment

Used coolant must be disposed responsibly. Do not discharge into drains, soil or water.