



CALTEX

# Delo<sup>®</sup> XLC Antifreeze/Coolant

Product Data Sheet

## Product description

Delo<sup>®</sup> XLC is a non-nitrited extended life Antifreeze/Coolant formulation for heavy duty and light duty diesel vehicles and equipment. Delo XLC is formulated with an aliphatic corrosion inhibitor system available as a concentrate and a premix 50/50.

## Customer benefits

Delo XLC Antifreeze/Coolant products deliver value through:

**Optimal Service life** – Service life tested up to 960,000 kilometers/12,000 hours/ 6 years with no Extender needed

**Excellent Protection** – Excellent protection against pitting, corrosion and erosion even on hard to protect metals like aluminum.

**Minimized maintenance and related costs** – Helps minimize the need for regular testing with proper top-up practices and helps eliminate the need for supplemental coolant additives.

**Heat Transfer** – Excellent heat transfer compared to silicate containing coolants.

**Hardware Life** – Helps maximize water pump life due to no silicate formula.

**Variable Applications** – Excellent protection for heavy duty engines where the OEM specifies a nitrite free coolant. Can be used in all heavy duty engines using reduced emission protocols including or combining EGR, DPF or ACERT technologies. This product is recommended for mixed fleet applications.<sup>1</sup>

**Wide Temperature Applications** – Protection against winter freeze-up and summer boil-over.

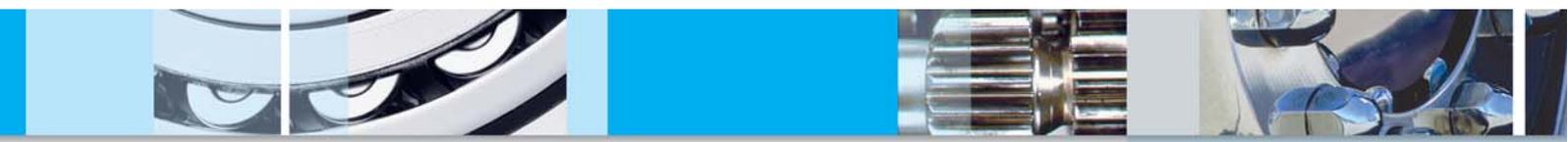
**Biodegradability** – Biodegradable in its unused form.

**Compatibility** – Compatible with conventional antifreeze. Dilution with conventional antifreeze will reduce extended life benefits. Chevron recommends that this product not be diluted by more than 25% with other coolant formulations.

**Stability** – Can be stored for approximately 8 years in sealed containers without any effect on the product quality or performance.

## Product features:

- Delo XLC Antifreeze/Coolant is a heavy-duty, ethylene glycol based engine coolant which incorporates patented organic corrosion inhibitor technology called aliphatic carboxylates.
- Delo XLC is a nitrite, nitrate, borate, phosphate, silicate, and amine free formulation that is designed to provide maximum protection of the six basic metal alloys found in most heat transfer systems.
- Delo XLC products do not contain phosphates or silicates which are known to contribute to hard water scale issues.
- Delo XLC promotes maximum water pump seal life by eliminating inorganic corrosion inhibitors.
- Delo XLC has a recommended service life of 960,000 kilometers/12,000 hours/ 6 years. This product will not require the addition of SCA's to achieve its recommended service life. Routine visual inspections, coolant top-off and annual



## Applications

Recommended applications for Delo XLC Antifreeze/Coolant:

- Heavy duty engines regardless of fuel type or environmental controls being used where the OEM recommends a nitrite free, silicate free coolant.
- Mixed fleets where automobiles, light duty trucks and heavy duty trucks are being serviced and the OEM recommends a nitrite free, silicate free product.<sup>2</sup>
- Recreational vehicles where a nitrite free, silicate free product is recommended.
- On-road, Off-road and Marine cooling system applications.

Delo<sup>®</sup> XLC Antifreeze/Coolant is approved for::

- Cummins CES 14439
- Detroit Diesel DFS93K217ELC
- Deutz DOC CB-14
- Komatsu KES 07.892
- MAN 324 Type SNF
- MB-Approval 325.3 (Concentrate)
- MB-Approval 326.3 (Premixed 50/50)

*1•2 Some OEM's require the use of nitrite in heavy duty engine applications.*

Delo<sup>®</sup> XLC Antifreeze/Coolant meets the specifications of:

- ASTM D3306
- ASTM D6210
- DAF 74002
- MTU MTL 5048
- TMC RP 364

Delo XLC Antifreeze/Coolant may be used in:

- Deutz Stationary Diesel Engines
- GE - Jenbacher Stationary Natural Gas Engines
- Hino Truck Diesel Engines
- Isuzu Truck Diesel Engines
- Kobelco Construction Equipment Diesel Engines
- Komatsu Construction Equipment Diesel Engines

## Product features *continued:*

testing are recommended to ensure maximum service life.

- **Note:** These products are not to be used to protect the inside of potable water systems against freezing.



## Applications continued

- MTU 2000/4000 Diesel Engines
- Navistar™ MAXXFORCE Engines
- Scania Truck Diesel Engines
- Volvo Construction Equipment (VCE) Diesel Engines
- Volvo and Mack Truck Diesel Engines
- Wartsila Stationary Diesel Engines
- European HD OEMs that require both Phosphate-free and Nitrite-free formulations
- Japanese HD OEMs that require Silicate-free formulations
- Vestas Wind Turbine Power Electronics External Coolant System

*It is recommended that this product not be diluted with other coolant formulations by more than 25% in order to maintain performance claims.*

### Product Dilution and Boil Over Protection Recommendations For Delo XLC Antifreeze/Coolant - Concentrate

#### Boiling Protection, °C/°F (using a 15 lb pressure cap)

- 50% 1:1 (1 part antifreeze/1 part water) 129.4/265

#### Freezing Protection, °C/°F

- 33% 33:67 (33 parts antifreeze/67parts water) -19/-2.2
- 40% 2:3 (2 parts antifreeze/3 parts water) -26/-14.8
- 50% 1:1 (1 part antifreeze/1 part water) -37/-34.6
- 60% 3:2 (3 parts antifreeze/2 parts water) -50/-58

#### Notes

- Product concentrates should be agitated before use or dilution.
- Delo XLC Antifreeze/Coolant - Premixed 50/50 should be used as purchased. No dilution is recommended.
- For maximum protection against freezing in extremely cold areas, a 60 percent solution of Delo XLC Antifreeze/Coolant - Concentrate (3 parts antifreeze/2 parts water) can be used. Concentrations greater than 67 percent are not recommended.
- Always dispose of used coolant in accordance with local, state and federal guidelines.



## Applications continued

### Product Reference

- Note: Bitterant is a flavor aversive that may help reduce the accidental ingestion of this product. These products contain bitterant.
- Product Code: 510614 – Delo XLC Antifreeze/Coolant - Concentrate
- Product Code: 510609 – Delo XLC Antifreeze/Coolant - Premixed 50/50

### Typical key properties

DELO® XLC ANTIFREEZE/ COOLANT CONCENTRATE	TEST METHOD	RESULTS
Appearance		Orange
Specific gravity 15/15 °C		1.117
Freezing point, °C <sup>3</sup>	D1177	-37
pH <sup>4</sup> ,	D1287	8.5
Reserve alkalinity <sup>5</sup>	D1121	6.0
Silicate, % <sup>6</sup>		None

Minor variations in product typical test data are to be expected in normal manufacturing.

2205

<sup>3</sup> 50 vol % aqueous solution

<sup>4</sup> 1:2 dilution with water

<sup>5</sup> As received

<sup>6</sup> As anhydrous alkali metasilicate

### Handling practices

The primary limiting factor in the shelf life of a coolant is silicate instability. Since silicate will eventually polymerize to silicate gel, silicate containing coolants have a shelf life of approximately 18 months. Delo XLC Antifreeze/Coolant is silicate-free and can be stored for 8 years, provided the container remains sealed. Product should be agitated before use.

### ENVIRONMENT, HEALTH and SAFETY

Information is available on this product in the Material Safety Data Sheet (MSDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain a MSDS for this product, visit [www.caltex.com](http://www.caltex.com).

This bulletin was prepared in good faith from the best information available at the time of issue. While the values and characteristics are considered representative, some variation, not affecting performance, can be expected. It is the responsibility of the user to ensure that the products are used in the applications for which they are intended.

Produced by:  
**Chevron Global Lubricants**  
– Asia Pacific