



CHEVRON DELO[®] EXTENDED LIFE COOLANT/ANTI-FREEZE PG

PRODUCT NUMBER 275110 (MSDS 23711)

CHEVRON DELO EXTENDED LIFE COOLANT/ANTIFREEZE PG

Chevron Delo Extended Life Coolant/Antifreeze PG concentrate is a single phase, propylene glycol type coolant/antifreeze based on Chevron's patented carboxylate inhibitor system with nitrite and molybdate added. This product is less toxic than an ethylene glycol based product and is recommended for use in areas where accidental ingestion by pets or wildlife may be an issue. Delo ELC PG concentrate is recommended for adjusting freeze point or can be used for initial fill if diluted 50/50. This product in service provides protection for up to 750,000 miles/12,000 hours/8 years with no Delo Extender needed or 1,000,000 miles/20,000 hours/8 years with the addition of Delo Extender at 500,000 miles/10,000 hours/4 years.

PRODUCT NUMBER 275109 (MSDS 23715)

CHEVRON DELO EXTENDED LIFE PREDILUTED 50/50 COOLANT/ANTI-FREEZE PG

Chevron Extended Life Prediluted 50/50 Coolant/Antifreeze PG is a ready to use blend of our Chevron Extended Life concentrate in propylene glycol with deionized water. Chevron Extended Life Prediluted 50/50 Coolant/Antifreeze PG delivers unsurpassed heavy-duty cooling system protection for up to 750,000 miles/15,000 hours/8 years with no Delo Extender needed or 1,000,000 miles/20,000 hours/8 years with Delo Extender at 500,000 miles/10,000 hours/4 years in on-road and off-road applications. The use of the patented carboxylate inhibitors promote excellent corrosion protection, improved heat transfer, extended water pump life and in general reduce maintenance time and costs.

PRODUCT APPLICATION

Chevron Delo Extended Life Coolant/Antifreeze PG is recommended for use in all heavy duty applications including on-road and off-road heavy duty diesel applications where a propylene glycol, silicate and phosphate free coolant are recommended. This coolant/antifreeze meets ASTM D6210. The carboxylate technology in Chevron Delo Extended Life Coolant/Antifreeze PG provides maximum protection for all 6 basic cooling system metals found in most heat transfer systems. Use of Chevron Delo Extended Life Coolant/Antifreeze PG helps reduce or eliminate issues found with hard water usage and silicate deposits. The low abrasive formula in Chevron Delo Extended Life Coolant/Antifreeze PG also helps improve heat transfer and improves water pump seal life.

The recommended service life of Chevron Delo Extended Life Coolant/Antifreeze PG is 750,000 miles/12,000 hours/8 years with no Delo Extender addition needed or 1,000,000 miles/20,000 hours/8 year with Delo Extender added at 500,000 miles/10,000 hours/4 years.

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

PRODUCT DESCRIPTIONS AND FEATURES

Chevron Delo Extended Life Coolant/Antifreeze PG is manufactured with propylene glycol and is pink in color.

BENEFITS

In service, Chevron Delo Extended Life Coolant/Antifreeze PG:

- Meets ASTM D6210.
- Uses a propylene glycol base that is less toxic than ethylene glycol.
- Provides a minimum service life of 750,000 miles/12,000 hours/8 years with no Delo Extender addition needed or 1,000,000 miles/20,000 hours/8 years with Delo Extender added at 500,000 miles/10,000 hours/4 years.
- Contains nitrite and molybdate for additional cylinder liner protection.

- Excellent heat transfer properties due to non-silicate formula.
- Silicate, borate, phosphate, nitrate and amine-free.
- Provides effective, long term corrosion protection for aluminum, brass, cast iron, steel, solder and copper even under high operating temperatures.
- When used as directed protects against winter freeze up and minimizes the chance of summer boil over.
- Contains no abrasive solids and minimizes the formation of abrasive dissolved solids.
- Storage stable for at least eight years with no silicate gel or drop-out formation, provided the integrity of the container is maintained.
- 100% biodegradable in its pure unused form.
- Compatible with conventional antifreeze.
Note: Mixing propylene glycol based coolants with ethylene glycol based coolants will increase the toxicity of product and will change freeze and boil-over protection properties.
- Dilution with other non-Chevron extended life propylene glycol based coolants beyond 25% is not recommended since long term performance will be affected.

PRODUCT RECOMMENDATIONS AND APPROVALS

Chevron Delo Extended Life Coolant/Antifreeze PG is recommended for use in all heavy duty applications where a propylene glycol product is recommended. This product is recommended for use in concentrations between 40% and 60%.

This product meets the following:

- ASTM D6210

This product is recommended for use in:

- All heavy diesel, gasoline and natural gas powered heavy duty engines.
- Mixed fleets where a nitrite containing product is recommended.

PRODUCT MAINTENANCE

This product is simple to maintain in use but you should always review your manufacturer's recommendation for maintaining your vehicle's fluids. Other general recommendations for maintaining this product include the following:

- Check the coolants color and be sure that it is clear and pink without any debris or discoloration.
- Check the freeze point of your coolant at least 1 time per year using a refractometer made for measuring PG based coolants.
- If water is added to the system use deionized water or good quality tap water.
- Do not add ethylene glycol based products or this products toxicity will be altered.
- Dilution by more than 25% with other non-Chevron Extended Life products will diminish this products extended life characteristics.
- Concentration of this product should be maintained at between 40 and 60%.

TYPICAL TEST DATA**Chevron Delo Extended Life PG Concentrate**

	ASTM 3306 requirements	Method used	
<i>Product Number</i>			275110
<i>MSDS Number</i>			23711
Propylene glycol	Base		93.0% w/w glycol
Other glycols	5% w/w max.		0.5% max.
Inhibitor content			5% w/w
Water content	5% w/w max	ASTM D1123	4% w/w max
Ash content	5% w/w max	ASTM D1119	1.4% w/w
Nitrite content			1100
Color			Pink
Specific gravity, 15°C	1.030 to 1.065	ASTM D1122	
Specific gravity, 20°C		ASTM D1122	1.042
Equilibrium boiling point	> 152°C	ASTM D1120	165°C
Reserve alkalinity	report	ASTM D1121	6.3
Refractive index			1.431

Typical test data are average values only. Minor variations which do not affect product performance are to be expected in normal manufacturing.

Chevron Delo Extended Life Prediluted 50/50 Coolant/Antifreeze PG

	ASTM 3306 requirements	Method used	
<i>Product Number</i>			275109
<i>MSDS Number</i>			23715
pH	7.5 to 11.0	ASTM D1287	8.8
Foaming properties at 25°C break time		ASTM D1881	50 ml 5 sec.
Foaming properties at 88°C break time	150 ml max.	ASTM D1881	50 ml 5 sec. typ.
Initial crystallization	< - 32 °C	ASTM D 1177	< - 32.6 °C
Freezing protection			-33°C
Effect on non-metals		GME 60 255	no effect
Staining characteristics	no effect	ASTM D 1882	/
Hard water stability		VW PV 1426	no precipitate

ASTM D 1384 Glassware Corrosion Test

	ASTM Limit	Weight loss, mg per coupon*
Brass	10 max	0.7
Copper	10 max	1.1
Solder	30 max	1.8
Steel	10 max	0.1
Cast Iron	10 max	-0.3
Aluminum	30 max	1.5

* Negative indicates net gain

ASTM D4340 Aluminum heat rejection test, 25%

	Weight loss in mg/cm²/week
ASTM D3306 (max)	1.0
Chevron Delo Extended Life Coolant/Antifreeze PG	< 0.4

HANDLING PRACTICES

This product is storage stable for a minimum of 8 years provided that the integrity of the package has been maintained. It is recommended that this product be agitated before use especially if the product has been seating for an extended period of time. Any unused product should be disposed of using all applicable regulations.