



HDAX[®] ELC ANTIFREEZE/COOLANT - PREMIXED 40/60

PRODUCT DESCRIPTION

HDAX[®] ELC Antifreeze/Coolant - Premixed 40/60 is formulated with Chevron's patented carboxylate corrosion inhibitor technology for use in heavy duty stationary natural gas engines that require improved heat transfer performance and long-life cooling system protection in a wide range of operating conditions.

CUSTOMER BENEFITS

HDAX ELC Antifreeze/Coolant - Premixed 40/60 delivers value through:

- **Superb cooling system operation** — The silicate free formula provides improved heat transfer when compared to traditional stationary gas engine coolants that typically contain silicates. When compared to traditional 50/50 stationary gas engine coolants - there is even better heat transfer performance:
 - Lab tests have measured a 7% improvement in thermal conductivity with this formula.
 - As a 40/60 blend, there is a 10% increase in thermal conductivity at operating temperature.
 - These combined benefits can provide up to 17% better heat transfer performance.This improved heat transfer supports fewer high temperature engine derating events or shutdowns.
- **Phosphate Free Formulation** — Elimination of phosphates helps reduce the occurrence of hard water and phosphate scale on heat transfer surfaces such as liners, hoses and radiators versus high phosphate-containing heat transfer fluids (typically containing 3000 ppm or greater of Phosphate).
- **Long Service Life** — Up to 32,000 hours of stationary engine coolant life when following OEM coolant maintenance recommendations and maintaining a correct 40/60 dilution ratio. For 32,000 hour life operations, always ensure the system is topped-off with HDAX ELC Antifreeze/

Coolant - Premixed 40/60 and take coolant samples every 6 months to check for coolant dilution. Should dilution occur, add either HDAX ELC Antifreeze/Coolant - Premixed 40/60 or Chevron's Delo[®] FleetFix[®] CME product to maintain appropriate coolant system protection.

- **Excellent Protection** — Effective, long term corrosion protection, even at elevated temperatures, of commonly found cooling system metals. Effective at protecting aluminum in high temperature applications and protecting against liner cavitation and pitting. Maximizes water pump seal life due to its silicate-free, phosphate-free formulation.
- **Low Maintenance Fluid** — Recommended for use in all stationary gas engine applications. Excellent for operations where stationary engines are in remote locations, or are periodically moved from job site to job site and coolant maintenance is sporadic. Check with your OEM for specific product application and maintenance requirements and always monitor through periodic coolant analysis.
- **Ready to Use Formulation** — No need to add water - product is ready to use. HDAX ELC Antifreeze/Coolant - Premixed 40/60 will provide freeze protection down to -12°F.
- **Compatibility** — Compatible with other coolant formulations and supplemental coolant additives. Chevron recommends that this product not be diluted by more than 20% with other coolant formulations. Dilution by more than 20% will reduce extended life performance.
- **Biodegradability** — Biodegradable in its unused form.
- **Stability** — Storage stability for a minimum of 8 years as purchased.

Product(s) manufactured in the USA.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.

A **Chevron** company product

1 April 2015
COOL-56

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PERFORMANCE

HDAX® Extended Life Technology is being utilized today with stationary gas engine operators who report excellent long-life performance, superb cavitation protection, and low maintenance costs. It is used in various engine models including Caterpillar and Waukesha stationary gas engines in severe operating conditions.

Note: This product is not to be used to protect the inside of potable water systems against freezing.

APPLICATIONS

Meets or Exceeds:

- **ASTM D6210 and D3306**

Suitable for use in these stationary gas engines:

- **Ajax**
- **Caterpillar**
- **Cooper-Bessemer**
- **MWM**
- **Wärtsilä**
- **Waukesha**
- **White Superior**

PRODUCT REFERENCE

Note: Bitterant is a flavor aversive that may help reduce the accidental ingestion of this product. This product contains bitterant.

Product Number 227075

SDS Number 32023

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TYPICAL TEST DATA

HDAX ELC ANTIFREEZE/COOLANT - PREMIXED 40/60

Appearance	Red
Specific gravity 15/15°C	1.06
Freezing point, °F/°C ^a , ASTM D1177	-12/-24
Boiling Protection, °F/°C (using a 15 lb pressure cap)	262/128
pH ^a , ASTM D1287	8.3
Reserve alkalinity ^a , ASTM D1121	6.0

a 60 vol % aqueous solution.

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

Notes:

- HDAX ELC Antifreeze/Coolant - Premixed 40/60 should be used as manufactured. No dilution is recommended.
- Always dispose of used coolant in accordance with local, state and federal guidelines.

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ASTM D1384 Glassware Corrosion Test

Data generated on a 33% dilution as per the method.

ASTM D1384 Glassware Corrosion Test		
	ASTM Limit	Weight loss, mg per coupon ^a
Copper	10 max	0
Solder	30 max	3
Brass	10 max	0
Steel	10 max	0
Iron	10 max	-1
Aluminum	30 max	-3

a Negative indicates net gain.

HANDLING PRACTICES

HDAX ELC Antifreeze/Coolant - Premixed 40/60 has a storage shelf life of up to 8 years.

Always confirm that the product selected is consistent with the original equipment manufacturer's recommendation for the equipment operating conditions and customer's maintenance practices.