



Product description

Havoline® Xtended Life Inhibitor is a water based, low toxicity, environmentally friendly, nitrite free carboxylate inhibitor concentrate

Customer benefits

- **Corrosion Protection** – Corrosion protection for engine metals, including aluminum, iron, copper and solder alloys.
- **Wide Service Application** – Recommended as a coolant for all types of gasoline engine cooling systems where freeze protection is not required.
- **Long service life** – The corrosion inhibitors in Havoline Xtended Life Inhibitor contain a synergistic combination of mono and di-carboxylates that provides superior protection up to 250,000 km or 5 years in on-road gasoline engine applications.
- **Compatibility** – Havoline Xtended Life Inhibitor is a super concentrate and should be diluted to 5.5%– 10% with good quality water before use. Compatible with glycol-based engine coolants but further dilution of Havoline Xtended Life Inhibitor - Concentrate by more than 25% with other corrosion inhibitor technologies will reduce the effectiveness of this product.
- **Heat Transfer** – Silicate and phosphate free formulation does not contribute to deposit build up, as can be seen with phosphate and silicate containing coolants, which can help maintain heat transfer efficiency.
- **Improved economics** – No regular inhibitor additions and longer service life means lower overall maintenance costs.
- **Excellent toxicological and environmental aspects** – Based on low toxicity inhibitors these products are readily biodegradable. The extended service life characteristic of this product contributes to the protection of the environment due to less frequent fluid disposal.
- **Easy Testing** – Inhibitor concentration testing can be easily done using a brix refractometer.

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Features

Havoline Xtended Life Inhibitor provides long life corrosion protection by using optimized and patented aliphatic carboxylate organic inhibitors that provide long lasting protection for cooling system metals and components including hard to protect aluminum.

Havoline Xtended Life Inhibitor helps maintain excellent heat transfer since it does not contain silicates and phosphates which can over time create deposits on heat transfer surfaces.

Havoline Xtended Life Inhibitor comes in a super concentrate and should be diluted to 5.5% - 10% with good quality water before use.

Havoline Xtended Life Inhibitor exhibits low depletion rates and does not require the addition of supplemental coolant additives with correct maintenance practices. Dilution of Havoline Xtended Life Inhibitor - Concentrate by more than 25% will reduce inhibitor performance.

Havoline Xtended Life Inhibitor protects against erosion, corrosion and cavitation of cooling system components.

Applications

Havoline Xtended Life Inhibitor is recommended for use in OEM equipment recommending a nitrite free, water based carboxylate based corrosion inhibitor.

Product Reference

Product Code : 510548

Havoline Xtended Life Inhibitor - Premixed

Havoline Xtended Life Inhibitor – Concentrate



Havoline® Xtended Life Inhibitor

Typical test data

Havoline Xtended Life Inhibitor - Concentrate

Technical Characteristics	Method	Havoline Xtended Life Inhibitor - Concentrate
Inhibitor content		32%w/w
Water content	ASTM D1123	68%w/w
Nitrite, amine, phosphate, borate, silicate		Nil
Color		Clear
Specific gravity, 20°C	ASTM D1122	1.06 typ.
pH	ASTM D1287	8.3 typ.
Storage stability		> 4 years
	Method	5 % dilution
pH	ASTM D1287	8.1 typ.
Foaming properties at 25°C	ASTM D1881	10ml typ.
• Break Time		1 sec. typ.
Effect on non-metals	GME 60 255	no effect
Hard water stability	VW PV 1426	no precipitate

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

Corrosion Protection

Table 1 : Modified ASTM D1384 Glassware Corrosion Tests - 300 ppm chloride

	ASTM D1384 (max)	5% Havoline® Xtended Life Inhibitor - Weight loss in mg/coupon ¹
Copper	10 max	0.6
Solder	30 max	4.5
Brass	10 max	0.6
Steel	10 max	0.0
Cast Iron	10 max	0.7
Aluminum	30 max	9.8
AlMn	/	4.8

Table 2: Modified MTU High Temperature Corrosion est (2000 W)

test duration 116 hrs	Weight loss in mg/coupon ²	
	5% Havoline Xtended Life Inhibitor in D9 water hot coupon	5% Havoline Xtended Life Inhibitor in FVV-water hot coupon
Cast Iron	-1.3	-9.0
Aluminum SAE 329	9.3	-16.4
Aluminum AlMg Si1	1.8	40.7

¹ Weight loss AFTER chemical cleaning. All weight losses are in mg/coupon. Weight gain is indicated by a "-" sign.

² Weight loss AFTER chemical cleaning. All weight losses are in mg/coupon. Weight gain is indicated by a "-" sign.



Havoline® Xtended Life Inhibitor



Handling Practices

Havoline Xtended Life Inhibitor has a shelf life of 1 year as purchased and a service life of at least 4 years with correct maintenance practices. This product is water based and will freeze. It is recommended that this product should be stored where it will not freeze. This product is not combustible. It 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.havoline.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 Lubricants
- Asia Pacific

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