

Product description

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

Customer benefits and product features

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.



Customer benefits and product features

Product 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 maintenance and handling

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.



Typical test data

Product Code: 510548

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.		
рН	ASTM D1287	8.3 typ.		
Storage Stability		>4 years		
HAVOLINE® XTENDED LIFE INHIBITOR – 5% DILUTION				
рН	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



Typical test data cont...

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

	ASTM D1384	5% Havoline ® Xtended Life Inhibitor – Weight loss in mg/coupon¹
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
Aluminium	30 max	9.8
AlMn	/	4.8

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

Weight loss in mg/coupon ²				
Test Duration 116 hrs	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		
Aluminium	9.3	-16.4		
SAE 329				
Aluminium	1.8	40.7		
AIMg Si1				

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.



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.

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 the Product Information Center.

This Product Data Sheet (PDS) was produced for the Asia Pacific region based on the best available information at the time of issue. The specific information included may not directly reflect the market or conditions, and may vary. For the most up-to-date, country-specific information, please contact your local customer service center.