
Corrosion Inhibitor BSB

1 Description

Corrosion Inhibitor BSB is an economical aqueous super concentrate that can be used to formulate coolants that provide frost and corrosion protection. These coolants are recommended when price considerations take priority but to get a higher performance, **Havoline XLC, Havoline XLC-PG or Havoline XLI** is preferred. Exempt from

potentially harmful additives such as nitrites, amines and phosphates, the coolant also contributes to a safer environment. The coolant is also free of silicates and borates. Unlike higher performance coolants, it is recommended to change the coolant every year.

2 Benefits

Coolants formulated from **Corrosion Inhibitor BSB** offer the following benefits to the user:

- **corrosion protection**
- **frost protection**
- **boiling protection**
- **miscibility**
- **seal compatibility**
- **hard water stability**
- **low cost**

3 Blending engine coolant from Corrosion Inhibitor BSB

Coolants meeting the British Standard requirements can be blended from **Corrosion Inhibitor BSB** by simply mixing the following ingredients at ambient temperatures:

<i>Ingredient (weight %)</i>	BS Coolant
Ethylene glycol	90.95
Corrosion Inhibitor BSB	6.00
Water	3.00
Coloring agent	optional

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4 Application

Corrosion Inhibitor BSB mixed at 6 % wt in monoethylene glycol provides year-round frost and corrosion protection. This package can also be used in monopropylene glycol. It is recommended to use at least 33 vol. % of the antifreeze in the final coolant solution.

This provides frost protection to -20°C. Concentrations higher than 70 vol % are not recommended; maximum frost protection (about -69°C) is obtained at a concentration of 68 vol %.

5 Standards

Coolants made from **Corrosion Inhibitor BSB** are conformable to British Standard BS6580: 1992 and BS 6580:2010*

** For product containing 25% or more 1,2 ethane diol (MEG) which is supplied as packaged goods intended for retail to the general public, BS 6580:2010 requires the addition of minimum 25 ppm of denatonium benzoate (bitterant), or the package has to be fitted with a childproof closure.*

6 Availability

Corrosion Inhibitor BSB is available in bulk and 1000 L containers. Product is available uncoloured and dark blue.

7 Storage requirements & Product handling

The product should be stored above -5°C and preferably at ambient temperatures. Periods of exposure to temperatures above 35°C should be minimized.

Corrosion Inhibitor BSB can be stored for minimum 2 years in unopened containers without any effect on the product quality or performance. It is strongly recommended to use new dark containers and not recycled ones.

Exposure to direct sunlight might degrade the colour dyes present in the coolant or cause discoloration, although the product itself and its properties remain stable. This reaction

can be accelerated if coupled with high ambient temperatures.

At higher temperatures and in open containers considerable amounts of water can evaporate and this may result in solidification of the product, without negative effect on the product.

As with any antifreeze coolant, the use of galvanized steel is not recommended for pipes or any other part of the storage/mixing installation.

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8 Toxicity & safety

For Toxicity and Safety Data we refer to the Material Safety Data Sheet. The transport is not regulated.

All information contained in this Product Information Leaflet is accurate to the best of our knowledge and belief as at the date of issue specified. However, the Company makes no warranty or representation, express or implied, as to the accuracy or completeness of such information.

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Addendum - Technical information

Chemical and physical properties

	BSB	method
Inhibitor content	42 % w/w	
Water content	58 % w/w	ASTM D1123
Nitrite, amine, phosphate, borate, silicate	Nil	
Colour	Uncoloured or Dark Blue	
Specific gravity, 20°C	1.050 – 1.080	ASTM D5931
pH	9.6 typ.	ASTM D1287
	6 % BSB in MEG	method
pH (33 vol%)	8.0 – 9.0	BS 5117:1.1
Reserve alkalinity (pH 5.5)	2.0 – 4.5	BS 5117:1.1
Foaming properties at 88°C ↳ break time	50 ml max 5 sec. max	BS 5117:1.4
Hard water stability	< 0.01 ml	BS 5117:1.5

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BS 5117 : 2.2 Hot immersion glassware corrosion test

	Weight loss in mg/coupon ¹					
	Brass	Copper	Solder	Steel	Cast Iron	Aluminium
ASTM D3306 (max)	10	10	30	10	10	30
BS 6580 : 1992 (max)	10	10	15	10	10	15
6 % BSB in MEG	0.7	0.2	2.5	-0.8	-0.5	1.2
6 % BSB in PG	0.5	0.7	5.3	0.6	-0.6	1.4

¹ Weight loss AFTER chemical cleaning acc. to ASTM procedure. Weight gain is indicated by a - sign.

BS 5117 : 2.2 Aluminium heat transfer test

	Weight loss in mg/cm ² /week
BS 6580 (max)	1.0
6 % BSB in MEG	-0.2
6 % BSB in PG	-0.3

Corrosion Protection