

Typical chemical and physical properties

Inhibitor FG-4SC is a non-toxic corrosion inhibitor for mono-propylene glycol (MPG) or re-inhibition of depleted MPG based coolants for the food and beverage industry.

Composition: aqueous solution of inhibiting salts. The formulation is perfectly balanced to protect all metals present in the hydraulic cooling systems for the food and beverage industry.

Appearance	slightly turbid liquid
Colour	Colourless*
Density (20 °C)	1.40 ± 0.05 g/cm ³
Solubility in water	complete
Freezing point	- 8 ± 2 °C
Storage stability	12 month

**Solution can be colored on request with 94/36 EC approved colorants*

This information is intended as a guideline only. For specifications please consult the Certificate of Analyses.

Applications and typical treat level recommended

The requirement of ASTM D 3306 are fully met by adding 4% w/w of Inhibitor FG-4SC to MPG.
Before using Inhibitor FG-4SC to re-inhibit depleted MPG based coolants it is strongly recommended to consult our technical service on phone : **+31 492 59 75 75**

Add Inhibitor FG-4SC to the MPG and homogenize for 30 minutes.

Toxicology

All ingredients of Inhibitor FG-4SC are approved by **95/32 EC and US-FDA** as food additives.



Nonfood Compounds

ADDAPT[®] Inhibitor FG-4SC

Safety and Handling	Please read Material Safety Data Sheet (MSDS) before handling.
Product Specification	This information is available on request through our local representative.
Packaging	This information is available on request through our local representative.

Quality Policy The objective of our quality policy is the continuous fulfillment of the internal and external requirements agreed upon with our partners with regards to everybody's performance.

The Quality System of ADDAPT[®] Chemicals BV is based on the principles of the NEN-EN-ISO-Standard 9001 : 2015.

Liabilities *All recommendations for the use of our products, whether given by us in writing, orally, or to be implied from the results of tests carried out by us, are based on the current state of our knowledge. Notwithstanding any such recommendations, buyer or user remains responsible for satisfying himself that the products as supplied by us are suitable for his intended process or purpose. Since we cannot control the application, use or processing of the products, we cannot accept responsibility thereof. Buyer has to ensure that the intended use of the products will not infringe any third party's intellectual property rights. We warrant that our products are free from defects in accordance with, and subject to, our general conditions of sale and supply.*

ADDAPT Chemicals BV
Speltdijk 1
NL-5704 RJ Helmond
The Netherlands
Tel: + 31 - 492 - 59 - 75 - 75
Fax: + 31 - 492 - 55 - 29 - 55
E-mail: info@addapt-chem.com
Home page: <http://www.addapt-chem.com>

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ADDAPT[®] Inhibitor FG-4SC

Typical characteristics of Engine Inhibitor manufactured with Inhibitor FG-4SC

CHARACTERISTICS	Inhibitor FG-4SC MPG	4% 96%	ASTM D 3306 LIMITS
Appearance	Clear		***
Water, mass %	3,2		5 max.
Reserve alkalinity	9,7		***
pH (aqueous solution 50%)	10		7,5 – 11,0
Density 15/15 °C	1,125		1,110 – 1,145
Hard water resistance	Not Resistant !		***

ASTM D 1384 – Corrosion Test for Engine Coolants in Glassware

METALS	Inhibitor FG-4SC MEG	4% 96%	ASTM D 3306 LIMITS
	Weight loss – mg/specimen		Weight loss – mg/specimen
Copper	0,6		10 max.
Solder	1,9		30 max.
Brass	0,9		10 max.
Steel	0,1		10 max.
Cast Iron	0,1		10 max.
Aluminium	0,8		30 max.

Hard Water resistance

Inhibitor FG-4SC contains phosphates. Anti-Freeze products containing phosphate salts show very effective and prolonged anti-corrosion properties. However their solutions are not resistant to hard water. In case of dilution with standard tap water (15-20 °f hardness) the MPG/Inhibitor blend will become turbid and formation of a light precipitate can occur.

The ASTM D 3306 specification does not require the anti-freeze to show resistance to hard water. The functional and anti-corrosion properties are not affected by the eventual turbidity and formation of precipitate.

It is however strongly advisable to use demineralised, deionised or distilled water to dilute the MPG/Inhibitor FG-4SC blend before filling the hydraulic circuits.

Miscibility with Standard Inorganic or Organic Based Anti-Freeze Formulations

It is not recommended to mix Inhibitor FG-4SC or MPG/Inhibitor FG-4SC blends with anti-freeze formulations based on borates/silicates or organic acids. In case of mixing, the non-toxic properties of Inhibitor FG-4SC will be compromised.

Furthermore formation of precipitate in the hydraulic circuits may occur with subsequent blocking of filters.