

### Typical chemical and physical properties

Coolant SiF-11SCS is a corrosion inhibitor for high performance Engine Coolant, free of borates, silicates, amines, phosphates, nitrites and nitrates

#### Composition: aqueous solution of organic acids salts

Appearance	liquid
Colour	pale yellow
Density (20 °C)	min. 1.20 g/cm <sup>3</sup>
Solubility in water	complete
Freezing point	- 18 °C
Storage stability	12 month

*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 met by adding 11,0% w/w of Coolant SiF-11SCS to MEG or MPG.  
11,0% Of Coolant SiF-11SCS added to MEG or MPG provides an a Coolant with reserve alkalinity > 12 ml HCl (0,1) and a pH 7-8 (33% in dest. water).

**Add Coolant SiF-11SCS to the MEG or MPG and homogenize for 30 minutes.**

### Benefits

#### International, National and Military Standards met by Engine Coolant based on Coolant SiF-11SCS:

BS 6580 (UK)	FVV Heft R 443 (D)	Afnor R 15/601 (1) (F)
SAE J 1034 (1)	JIS K 2234 (1) (J)	KSM 2142 (K)
CUNA NC 956-16 (I)	UNE 26361-88 (E)	EMPA (CH)
ASTM D 3306 and 4985	NATO S 759	E/L 1415c (MIL Italy)

#### OEM Specifications met by Engine Coolant based on Coolant SiF-11SCS:

PSA B 715110

# ADDAPT<sup>®</sup> Coolant SiF-11SCS

---

<b>Safety and Handling</b>	Please read Material Safety Data Sheet (MSDS) before handling.
<b>Product Specification</b>	This information is available on request through our local representative.
<b>Packaging</b>	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<sup>®</sup> 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](mailto:info@addapt-chem.com)  
Home page: <http://www.addapt-chem.com>

Publication Number CO81250  
© ADDAPT Chemicals BV 2009  
Version 4: 2019

# ADDAPT® Coolant SiF-11SCS

## Typical characteristics of Engine Coolant manufactured with Coolant SiF-11SCS

CHARACTERISTICS	Coolant SiF-11SCS MEG	13,0% 87,0%	ASTM D 3306 LIMITS
Appearance	Clear		***
Water, mass %	2.1		5 max.
Reserve alkalinity (pH 5.5)	13,5 (1)		***
Reserve alkalinity (acid #)	3.0 (2)		***
pH ( aqueous solution 33%)	7.8 (3)		
pH (aqueous solution 50%)	7.9		7,5 – 11,0
Density 15/15 °C	1,135		1,110 – 1,145
Hard water resistance	***		***
Boiling point	Min. 170 °C		

Note: (1) Specification limit according to PSA B 715110: 12-14

Note: (2) Specification according to PSA B 715110: 2-4

Note: (3) Specification limit according to PSA B 715110: 7-8 (33% in dist. Water).

## ASTM D 1384 – Corrosion Test for Engine Coolant in Glassware

METALS	Coolant SiF-11SCS MEG	9% 91%	ASTM D 3306 LIMITS
	Weight loss – mg/specimen		Weight loss – mg/specimen
Copper	1,1		10 max.
Solder	1,2		30 max.
Brass	0,9		10 max.
Steel	0,4		10 max.
Cast Iron	1,3		10 max.
Aluminium	2,7		30 max.

## STM D 4340 – Corrosion of Cast Aluminium Alloys in Engine Coolants under Heat Rejecting Conditions

METALS	Coolant SiF-11SC MEG	11.0% 89.0%	ASTM D 3306 LIMITS
	Weight loss – mg/cm <sup>2</sup> / week		Weight loss – mg/cm <sup>2</sup> / week
Aluminium	0,4		1,0 max.

# ADDAPT® Coolant SiF-11SCS

## ASTM D 2570 – Simulated Service Corrosion Testing of Engine Coolants

METALS	Coolant SiF-11SCS 11.0% MEG 89.0%	ASTM D 3306 LIMITS
	Weight loss – mg/specimen	Weight loss – mg/specimen
Copper	1,9	20 max.
Solder	3,2	60 max.
Brass	3,4	20 max.
Steel	2,8	20 max.
Cast Iron	3,9	20 max.
Aluminium	5,4	60 max.

## ASTM D 2809 – Cavitation Corrosion and Erosion Characteristics of Aluminium Pumps with Engine Coolants

METALS	Coolant SiF-11SC 11.0% MEG 87.0%	ASTM D 3306 LIMITS
	Visual Rating	Visual Rating
Aluminium	9	8 min.

## Resistance to High Temperature – GFC-CEC-FL-21-A-01

	Coolant SiF-11SC 11.0% MEG 89.0%	GFC-CEC-FL-21-A-01 Limits
pH Value after test	7,2	+/- change
Volume deposit after test	2,3 ml	3 ml max.