CAFLON Si-OAT

Long life Antifreeze with Organic Acid Technology and Silicates

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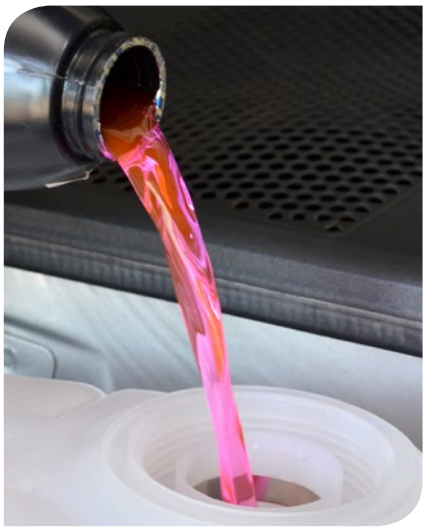

- Is an ethylene glycol based coolant concentrate formulated for use in all engines including those constructed from aluminium alloys.
- Provides all year-round frost and corrosion protection. It is recommended to dilute the material 50 vol. % in the final coolant solution. This provides frost protection to -38°C.
- Contains an inhibitor package based on salts of Organic Acid's and silicates.
- Is supplied pink/red in colour and contains a bittering agent.

Performance, Features & Benefits:

- Offers outstanding protection against corrosion, overheating and frost.
- Is a 'Long life' coolant due to the slow depletion rates of the OAT inhibitors versus traditional inorganic / mineral variants.
- Adopts low silicate technology that boosts overall corrosion protection (in particular against aluminium).
- Contains silicate stabilisers to prevent the formation of silicate gel often observed with inferior formulations / products.
- The exceptional thermal stability eliminates the risks of deposits particularly near the cylinder head, engine block, radiator, water pump and heat exchanger.
- Is Nitrite, Amine, Phosphate (NAP) and Borate free.
- Has excellent hard water stability.
- Exceeds the requirements of most European and International Standards, including – BS:6580 (2010); ASTM D3306, SAE J1034, ASTM D6210, AFNOR NF R15601 (with the exception of reserve alkalinity).
- Meets the performance requirements of Cummins CES14603, MAN 324 Typ Si-OAT, Scania TB 145, MTU MTL 5048, VW TL 774-G

Typical Properties (Not a Specification)	CAFLON Si-OAT	ASTM D3306
Appearance @ 20°C	Clear pink/red liquid (*)	Not specified
Relative Density 15.5/15.5°C (60/60°F)	1.120	1.110 – 1.145
Freezing Point (°C) 50 vol % in DI water	-38.0	-36.4°C max
Boiling Point (°C) 50 vol % in DI water	109°C	108°C min
pH (neat)	8.8	Not specified
pH, 50 vol % in DI water	8.4	7.5 – 11.0
pH, 33 vol % in DI water	8.2	
Reserve Alkalinity @ pH 5.5	3.8	Report
Water (% w/w – Karl Fischer)	3.5	5.0 max
Flash Point (°C)	>120	
Foaming Properties (ASTM D1881) Vol. (ml) Break (s)	40 1	150 max 5 max

DILUTION

CAFLON Si-OAT must be diluted with water before use (ideally with DI water). It is hard water compatible and can be mixed with tap water (*) before filling into the cooling system.
(*) water quality should not exceed the following limits;

- Water Hardness
  0 - 20° dH (0 – 3.6mmol/l)
- Chloride content
  100 ppm max
- Sulphate content
  100 ppm max
- CAFLON Si-OAT can also be supplied pre-diluted

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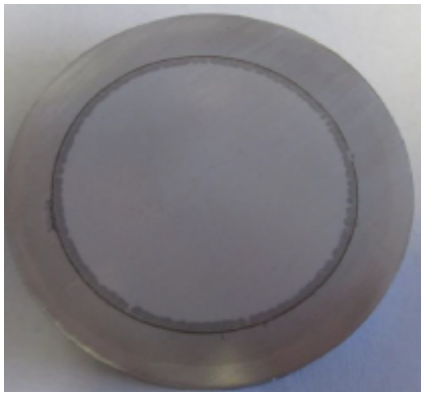
CORROSION PROTECTION
Glassware Corrosion Test - ASTM D 1384

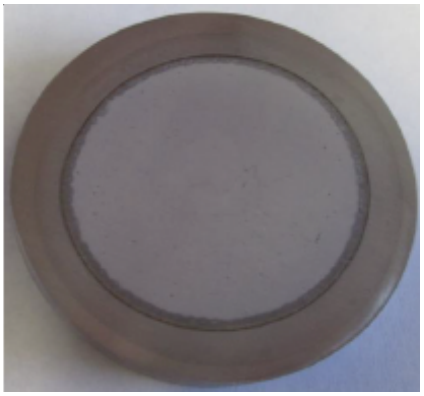
ASTM D 1384[1] Test Results					
ASTM D 1384	Specimen Corrosion Weight Loss (mg)				
Specimen	#1	#2	#3	Avg	Max**
Copper	0	0	0	0	10
Solder	0	0	0	0	30
Brass	1	0	1	1	10
Steel	0	0	0	0	10
Cast Iron	0	1	0	0	10
Cast Aluminium	-2	-2	-2	-2	30

** Maximum corrosion weight loss as specified by ASTM D3306

Corrosion of Aluminium under Heat Rejecting Conditions - ASTM D 4340

ASTM D 43401 Test Results			
Run #1 Weight Loss ($mg/cm^2/wk$)	Run #2 Weight Loss ($mg/cm^2/wk$)	Average Weight Loss ($mg/cm^2/wk$)	ASTM Limit ** ($mg/cm^2/wk$)
-0.07	-0.02	-0.04	1.00
pH After (1)	pH After (2)	Appearance	
8.05	8.05	No Visible Deposit	



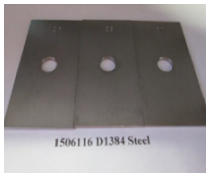


Copper

Solder

Brass

Steel



Cast Iron

Cast Aluminium

STORAGE

CAFLON Si-OAT has a shelf life of two years when stored in originally closed, air-tight containers at temperatures ⩽ 30°C.

AVAILABILITY

20 & 25 LITRE KEGS

1000 LITRE IBC's

205 LITRE DRUMS

BULK

Mixing **CAFLON Si-OAT** with other coolants is not recommended.

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