



SAFETY DATA SHEET CAFLON SI OAT GREEN

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name CAFLON SI OAT GREEN

Product number 52926

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses Coolant Antifreeze liquid.

1.3. Details of the supplier of the safety data sheet

Supplier Univar
Aquarius House
6 Mid Point Business Park
Bradford
BD3 7AY
+44 1274 267300
+44 1274 267306
sds@univar.com

1.4. Emergency telephone number

Emergency telephone SGS - +32 (0)3 575 55 55 (24h)

Sds No. 52926

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 STOT RE 2 - H373

Environmental hazards Not Classified

2.2. Label elements

Pictogram



Signal word Warning

Hazard statements H302 Harmful if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements P260 Do not breathe vapour/ spray.
P264 Wash contaminated skin thoroughly after handling.
P301+P312 IF SWALLOWED: Call a POISON CENTRE/doctor if you feel unwell.
P501 Dispose of contents/ container in accordance with national regulations.

CAFLON SI OAT GREEN

Contains ETHANEDIOL

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

ETHANEDIOL			60-100%
CAS number: 107-21-1	EC number: 203-473-3	REACH registration number: 01-2119456816-28-XXXX	
Classification Acute Tox. 4 - H302 STOT RE 2 - H373			
2-ETHYLHEXANOIC ACID, SODIUM SALT			1-5%
CAS number: 19766-89-3	EC number: 243-283-8	REACH registration number: 01-2119488942-23-XXXX	
Classification Repr. 2 - H361d			

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
Ingestion	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse mouth thoroughly with water. Give plenty of water to drink. DO NOT induce vomiting. Get medical attention immediately.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if any discomfort continues.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Ingestion	Harmful if swallowed. Ingestion of large amounts may cause unconsciousness. Lethal dose to humans 100ml Causes damage to organs through prolonged or repeated exposure if swallowed.
------------------	--

4.3. Indication of any immediate medical attention and special treatment needed

CAFLON SI OAT GREEN

Notes for the doctor

If several ounces (60 - 100 ml) of ethylene glycol have been ingested, early administration of ethanol may counter the toxic effects (metabolic acidosis, renal damage). Consider hemodialysis or peritoneal dialysis & thiamine 100 mg plus pyridoxine 50 mg intravenously every 6 hours. If ethanol is used, a therapeutically effective blood concentration in the range of 100 - 150 mg/dl may be achieved by a rapid loading dose followed by a continuous intravenous infusion. Consult standard literature for details of treatment. 4-Methyl pyrazole (Antizol®) is an effective blocker of alcohol dehydrogenase and should be used in the treatment of ethylene glycol (EG), di- or triethylene glycol (DEG, TEG), ethylene glycol butyl ether (EGBE), or methanol intoxication if available. Fomepizole protocol: loading dose 15 mg/kg intravenously, follow by bolus dose of 10 mg/kg every 12 hours; after 48 hours, increase bolus dose to 15 mg/kg every 12 hours. Continue fomepizole until serum methanol, EG, DEG, TEG or EGBE are undetectable. The signs and symptoms of poisoning include anion gap metabolic acidosis, CNS depression, renal tubular injury, and possible late stage cranial nerve involvement. Respiratory symptoms, including pulmonary edema, may be delayed. Persons receiving significant exposure should be observed 24-48 hours for signs of respiratory distress. In severe poisoning, respiratory support with mechanical ventilation and positive end expiratory pressure may be required. Maintain adequate ventilation and oxygenation of the patient. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. If burn is present, treat as any thermal burn, after decontamination. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

5.3. Advice for firefighters

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of spray mist and contact with skin and eyes. Provide adequate ventilation.

6.2. Environmental precautions

Environmental precautions Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with inert, damp, non-combustible material. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

CAFLON SI OAT GREEN

Usage precautions Provide adequate ventilation. Avoid inhalation of vapours/spray and contact with skin and eyes.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

ETHANEDIOL

Long-term exposure limit (8-hour TWA): WEL 20 ppm 52 mg/m³ vapour

Short-term exposure limit (15-minute): WEL 40 ppm 104 mg/m³ vapour

Sk

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate

Sk

WEL = Workplace Exposure Limit

Sk = Can be absorbed through the skin.

ETHANEDIOL (CAS: 107-21-1)

Ingredient comments	WEL = Workplace Exposure Limits
DNEL	Industry - Inhalation; Short term : 35 mg/m ³ Industry - Dermal; Long term : 106 mg/kg/day Consumer - Dermal; Long term : 53 mg/kg/day Consumer - Inhalation; Long term : 7 mg/m ³
PNEC	- Fresh water; 10 mg/l - Marine water; 1 mg/l - Soil; 1.53 mg/kg - STP; 199.5 mg/l - Sediment (Freshwater); 37 mg/kg - Sediment (Marinewater); 3.7 mg/kg - Intermittent release; 10 mg/l

SODIUM METASILICATE PENTAHYDRATE (CAS: 10213-79-3)

DNEL	Workers - Dermal; Long term : 1.49 mg/kg/day Workers - Inhalation; Long term : 6.22 mg/m ³ Consumer - Dermal; Long term : 0.74 mg/kg/day Consumer - Inhalation; Long term : 1.55 mg/m ³ Consumer - Oral; Long term : 0.74 mg/kg/day
PNEC	- Fresh water; 7.5 mg/l - Marine water; 1 mg/l - Water, Intermittent release; 7.5 mg/l - STP; 1000 mg/l

WATER (CAS: 7732-18-5)

Ingredient comments	No exposure limits known for ingredient(s).
----------------------------	---

8.2. Exposure controls

CAFLON SI OAT GREEN

Protective equipment



Appropriate engineering controls

As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.

Eye/face protection

Chemical splash goggles. EN 166

Hand protection

It is recommended that chemical-resistant, impervious gloves are worn. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Polyvinyl chloride (PVC). Neoprene. Nitrile rubber. EN 374

Other skin and body protection

Wear suitable protective clothing as protection against splashing or contamination.

Hygiene measures

Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.

Respiratory protection

If ventilation is inadequate, suitable respiratory protection must be worn. Wear a respirator fitted with the following cartridge: Gas filter, type A2. EN 136/140/141/145/143/149

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Clear liquid.
Colour	Green.
Odour	No data available.
Odour threshold	Data lacking.
pH	pH (concentrated solution): 8.4 - 8.8
Melting point	No information available.
Initial boiling point and range	> 165°C
Flash point	Data lacking.
Evaporation rate	Data lacking.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Data lacking.
Other flammability	No information available.
Vapour pressure	Data lacking.
Vapour density	Data lacking.
Relative density	1.110 - 1.145 @ 20°C
Bulk density	No information available.
Solubility(ies)	Soluble in water.

CAFLON SI OAT GREEN

Partition coefficient	Not available.
Auto-ignition temperature	Data lacking.
Decomposition Temperature	Data lacking.
Viscosity	Data lacking.
Explosive properties	Data lacking.
Explosive under the influence of a flame	No information available.
Oxidising properties	Not available.

9.2. Other information

Other information	Not available.
Refractive index	No information available.
Particle size	No information available.
Molecular weight	No information available.
Volatility	No information available.
Saturation concentration	No information available.
Critical temperature	No information available.
Volatile organic compound	No information available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.
------------	---

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.
-----------	---

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Will not polymerise.
------------------------------------	----------------------

10.4. Conditions to avoid

Conditions to avoid	Avoid excessive heat for prolonged periods of time.
---------------------	---

10.5. Incompatible materials

Materials to avoid	Strong oxidising agents. Strong acids. Strong alkalis.
--------------------	--

10.6. Hazardous decomposition products

Hazardous decomposition products	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.
----------------------------------	--

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD ₅₀)	Data lacking.
ATE oral (mg/kg)	538.79

CAFLON SI OAT GREEN

Skin corrosion/irritation

Animal data Data lacking.

Serious eye damage/irritation

Serious eye damage/irritation Data lacking.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Data lacking.

Germ cell mutagenicity

Genotoxicity - in vitro Data lacking.

Carcinogenicity

Carcinogenicity Data lacking.

Reproductive toxicity

Reproductive toxicity - fertility Data lacking.

Specific target organ toxicity - single exposure

STOT - single exposure Data lacking.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Data lacking.

Aspiration hazard

Aspiration hazard No information available.

Inhalation Gas or vapour in high concentrations may irritate the respiratory system.

Ingestion Harmful if swallowed. Lethal dose to humans 100ml Causes damage to organs through prolonged or repeated exposure if swallowed.

Skin contact Prolonged and frequent contact may cause redness and irritation.

Eye contact May cause temporary eye irritation.

Target organs Liver Kidneys

Toxicological information on ingredients.

ETHANEDIOL

Acute toxicity - oral

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 10,600.0

Species Rabbit

Notes (dermal LD₅₀) LD₅₀ > 10600 mg/kg, Dermal, Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 2.5

CAFLON SI OAT GREEN

Species	Rat
Notes (inhalation LC₅₀)	LD ₅₀ > 2.5 mg/l, Inhalation, Rat
ATE inhalation (vapours mg/l)	2.5
<u>Skin corrosion/irritation</u>	
Animal data	Not irritating.
<u>Serious eye damage/irritation</u>	
Serious eye damage/irritation	Not irritating.
<u>Respiratory sensitisation</u>	
Respiratory sensitisation	Not sensitising.
<u>Skin sensitisation</u>	
Skin sensitisation	Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vivo	This substance has no evidence of mutagenic properties.
<u>Carcinogenicity</u>	
Carcinogenicity	There is no evidence that the product can cause cancer.
<u>Reproductive toxicity</u>	
Reproductive toxicity - development	Symptoms following overexposure may include the following: Possible risk of adverse reproductive effects.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	No information available.
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	May cause damage to organs (Kidneys) through prolonged or repeated exposure if swallowed.
<u>Aspiration hazard</u>	
Aspiration hazard	No information available.
<u>Inhalation</u>	
Inhalation	Vapour may irritate respiratory system/lungs.
<u>Ingestion</u>	
Ingestion	Harmful if swallowed. Lethal dose to humans 100ml
<u>Skin contact</u>	
Skin contact	Prolonged and frequent contact may cause redness and irritation.
<u>Eye contact</u>	
Eye contact	May cause temporary eye irritation.
<u>Target organs</u>	
Target organs	Liver Kidneys

SECTION 12: Ecological Information

Ecotoxicity	The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
--------------------	--

Ecological information on ingredients.

CAFLON SI OAT GREEN

ETHANEDIOL

Ecotoxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity

Toxicity Not considered toxic to fish.

Ecological information on ingredients.

ETHANEDIOL

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 72860 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: > 100 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 96 hours: 6500 - 13000 mg/l,

Acute toxicity - microorganisms EC₅₀, 30 minutes: 225 mg/l, Activated sludge

12.2. Persistence and degradability

Persistence and degradability There are no data on the degradability of this product.

Ecological information on ingredients.

ETHANEDIOL

Persistence and degradability The substance is readily biodegradable.

Biodegradation - Degradation (%) 90%: > 10 days
OECD 301A

12.3. Bioaccumulative potential

Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient Not available.

Ecological information on ingredients.

ETHANEDIOL

Bioaccumulative potential The product is not bioaccumulating.

Partition coefficient -1.36

12.4. Mobility in soil

Mobility The product is soluble in water.

Ecological information on ingredients.

ETHANEDIOL

Mobility The product is soluble in water.

CAFLON SI OAT GREEN

Adsorption/desorption
coefficient

Water - Koc: 1 @ °C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB
assessment

This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

ETHANEDIOL

Results of PBT and vPvB
assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects

None known.

Ecological information on ingredients.

ETHANEDIOL

Cod

1.22

Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

Waste is classified as hazardous waste. Do not puncture or incinerate, even when empty.

Disposal methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: Transport information

General

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

CAFLON SI OAT GREEN

Transport in bulk according to Not applicable.
Annex II of MARPOL 73/78
and the IBC Code

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

Commission Regulation (EU) No 2015/830 of 28 May 2015.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

CAFLON SI OAT GREEN

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.
 CAS: Chemical Abstracts Service.
 DNEL: Derived No Effect Level.
 IATA: International Air Transport Association.
 IMDG: International Maritime Dangerous Goods.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 vPvB: Very Persistent and Very Bioaccumulative.
 IARC: International Agency for Research on Cancer.
 MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.
 cATpE: Converted Acute Toxicity Point Estimate.
 BCF: Bioconcentration Factor.
 BOD: Biochemical Oxygen Demand.
 EC₅₀: 50% of maximal Effective Concentration.
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 LOEC: Lowest Observed Effect Concentration.
 DMEL: Derived Minimal Effect Level.
 EL50: Exposure Limit 50
 hPa: Hectopascal
 LL50: Lethal Loading fifty
 OECD: Organisation for Economic Co-operation and Development
 POW: Octanol-water partition coefficient
 SCBA: self-contained breathing apparatus
 STP: Sewage Treatment Plant
 VOC: Volatile Organic Compounds

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity
 Aquatic Acute = Hazardous to the aquatic environment (acute)
 Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Revision comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date

03/11/2017

Version number

1.000

SDS number

52926

SDS status

Approved.

CAFLON SI OAT GREEN

Hazard statements in full

H302 Harmful if swallowed.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

Signature

Jitendra Panchal