

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 06.09.2023

Version number 1

Revision: 06.09.2023

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

- **1.1 Product identifier**
- **Trade name:** Cooltech 41 Si-OAT
- **Registration number** Mixture
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Product category** PC4 Anti-Freeze and de-icing products
- **Application of the substance / the mixture**
Antifreeze
Coolant
- **Uses advised against**
Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).
Any use involving significant release of aerosol, vapour or dust in the breathing zone of workers where they are exposed without suitable respiratory protective equipment (RPE).
Processes involving extreme heat use advised against.
Processes involving the use of incompatible substances - refer to section 10.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Smith & Allan
Valley Street North
Darlington
County Durham
DL1 1QE
Tel: 01325 462228
Fax: 01325 368122
e-mail: enquiries@smithandallan.com
- **Further information obtainable from:** Product safety department.
- **1.4 Emergency telephone number:**
Members of the public seeking specific information on poisons should contact:
In England and Wales: NHS 111 - dial 111
In Scotland: NHS 24 - dial 111

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



Acute Tox. 4 H302 Harmful if swallowed.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the GB CLP regulation.
- **Hazard pictograms** GHS07, GHS08
- **Signal word** Warning
- **Hazard-determining components of labelling:**
Ethanediol
- **Hazard statements**
H302 Harmful if swallowed.
H373 May cause damage to organs through prolonged or repeated exposure.
- **Precautionary statements**
P260 Do not breathe dust/fume/gas/mist/vapours/spray.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 06.09.2023

Version number 1

Revision: 06.09.2023

Trade name: Cooltech 41 Si-OAT

(Contd. of page 1)

- P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
 P330 Rinse mouth.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Chemical characterisation: Mixtures**
- **Description:** Mixture of ethylene glycol, water and additives.

- **Dangerous components:**

CAS: 107-21-1	Ethanediol	☠ STOT RE 2, H373; ⚠ Acute Tox. 4, H302	25–100%
EINECS: 203-473-3			

- **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:**
Supply fresh air.
If rapid recovery does not occur, transport to nearest medical facility for additional treatment.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact:**
Check for and remove any contact lenses.
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Wash mouth out with water
Do not induce vomiting; call for medical help immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
- **Information for doctor:**
Contains ethanediol.
If ingested, early diagnosis and treatment is essential.
Refer to section 11.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
Obtain medical attention urgently, informing the emergency services that a product containing ethylene glycol/diethylene glycol has been ingested and that specific treatment is needed.
Gastric lavage may be effective when performed within 4 hours of ingestion.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Use fire extinguishing methods suitable to surrounding conditions.

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 06.09.2023

Version number 1

Revision: 06.09.2023

Trade name: Cooltech 41 Si-OAT

(Contd. of page 2)

- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Do not inhale explosion gases or combustion gases.
Wear fully protective suit.
- **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation
- **6.2 Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations.
Dispose contaminated material as waste according to section 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Handling:** Avoid direct personal contact (eyes, skin and inhalation).
- **Information about fire - and explosion protection:** Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
Prevent any seepage into the ground.
Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from oxidising agents.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Storage class:** 12
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see section 7.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 06.09.2023

Version number 1

Revision: 06.09.2023

Trade name: Cooltech 41 Si-OAT

(Contd. of page 3)

· Ingredients with limit values that require monitoring at the workplace:
107-21-1 Ethanediol

WEL	Short-term value: 104** mg/m ³ , 40** ppm Long-term value: 10* 52** mg/m ³ , 20** ppm Sk *particulate **vapour
-----	--

· DNELs
107-21-1 Ethanediol

Dermal	DNEL Long-term systemic effects	53 mg/kg bw/day (general population) 106 mg/kg bw/day (worker)
Inhalative	DNEL Long-term local effects	7 mg/m ³ (general population) 35 mg/m ³ (worker)

· **Additional information:** The lists valid during the making were used as basis.

· 8.2 Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Avoid contact with the eyes and skin.
Do not eat, drink, smoke or sniff while working.
Do not inhale gases / fumes / aerosols.
Wash hands before breaks and at the end of work.
Store protective clothing separately.

· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.
Filter A/P2

· Protection of hands:


Protective gloves.

Use gloves tested and approved under appropriate government standards such as NIOSH (US) or EN374 (EU).

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

PVC gloves
Nitrile rubber, NBR
Neoprene gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

Thickness: >0.35 mm.
Break-through time: >480 minutes

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:


Safety glasses with side-shields conforming to EN166.

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Goggles recommended during refilling

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 06.09.2023

Version number 1

Revision: 06.09.2023

Trade name: Cooltech 41 Si-OAT

(Contd. of page 4)

· **Body protection:**

Protective work clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· Form:	Liquid
· Colour:	Pink
· Odour:	Characteristic
· Odour threshold:	Not determined.

· **pH-value at 20 °C:** 5–7· **Change in condition**

· Melting point/freezing point:	-37 °C
· Initial boiling point and boiling range:	>100 °C

· **Flash point:** Not applicable.· **Flammability (solid, gas):** Not applicable.· **Auto-ignition temperature:** >200 °C· **Decomposition temperature:** Not determined.· **Ignition temperature:** Product is not self-igniting.· **Explosive properties:** Product does not present an explosion hazard.· **Explosion limits:**

· Lower:	3 Vol %
· Upper:	15 Vol %

· **Vapour pressure:** Not determined.

· Density at 20 °C:	1.07 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

· **Solubility in / Miscibility with water:** Fully miscible.· **Partition coefficient: n-octanol/water:** Not determined.· **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· **Solvent content:**· **VOC (EC)** 0.00 %· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 06.09.2023

Version number 1

Revision: 06.09.2023

Trade name: Cooltech 41 Si-OAT

(Contd. of page 5)

- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** Heat and static discharge.
- **10.5 Incompatible materials:** Strong oxidising agents.
- **10.6 Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Toxic metal oxide smoke

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- **Acute toxicity**
Harmful if swallowed.

· LD/LC50 values relevant for classification:

107-21-1 Ethanediol

Oral	LD50	7,712 mg/kg (rat)
Dermal	LD50	3,500 mg/kg (mouse)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
 ROUTES OF EXPOSURE: Can be absorbed into the body by ingestion, by inhalation (mist and vapour) and through the skin.
 Contains ethanediol. Ingestion of large quantities may cause damage to the kidneys.
 There is a marked difference in acute oral toxicity between rodents and man, man being more susceptible than rodents.
 The estimated fatal dose for man is 100 milliliters (1/2 cup).
 This material has also been shown to be toxic and potentially lethal by ingestion to cats and dogs.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure**
May cause damage to organs through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

107-21-1 Ethanediol

EC50 (96 h)	>100 mg/l (Bacteria)
-------------	----------------------

- **12.2 Persistence and degradability** Readily biodegradable
- **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.
- **12.4 Mobility in soil** Potential for mobility in soil is very high (Koc between 0 and 50).
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 06.09.2023

Version number 1

Revision: 06.09.2023

Trade name: Cooltech 41 Si-OAT

(Contd. of page 6)

- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Recommended Hierarchy of Controls:
 - Minimise waste;
 - Reuse if not contaminated;
 - Recycle, if possible; or
 - Safe disposal (if all else fails).
 Must not be disposed together with household garbage. Do not allow product to reach sewage system. Contact waste processors for recycling information. Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.
- **Uncleaned packaging:**
- **Recommendation:**
Disposal must be made according to official regulations. Containers, even those that are "empty," may contain residues that can develop flammable and/or hazardous vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- | | |
|---|--|
| · 14.1 UN-Number
· ADR/RID/ADN, IMDG, IATA | Void |
| · 14.2 UN proper shipping name
· ADR/RID/ADN, IMDG, IATA | Void |
| · 14.3 Transport hazard class(es)
· ADR/RID/ADN, ADN, IMDG, IATA
· Class | Void |
| · 14.4 Packing group
· ADR/RID/ADN, IMDG, IATA | Void |
| · 14.5 Environmental hazards: | Not applicable. |
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | Void |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

(Contd. on page 8)

GB

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 06.09.2023

Version number 1

Revision: 06.09.2023

Trade name: Cooltech 41 Si-OAT

(Contd. of page 7)

· 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H302 Harmful if swallowed.

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

· Abbreviations and acronyms:

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

DNEL: Derived No-Effect Level (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity – Category 4

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

GB

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31 as amended

Printing date 06.09.2023

Version number 1

Revision: 06.09.2023

Trade name: Cooltech 41 Si-OAT

(Contd. of page 8)

Annex: Exposure scenario

- **Product category** PC4 Anti-Freeze and de-icing products
- **Description of the activities / processes covered in the Exposure Scenario**
See section 1 of the annex to the Safety Data Sheet.
- **Conditions of use**
- **Duration and frequency** 5 workdays/week.
- **Physical parameters**
- **Physical state** Fluid
- **Concentration of the substance in the mixture** The substance is main component.
- **Other operational conditions**
- **Other operational conditions affecting environmental exposure** No special measures required.
- **Other operational conditions affecting worker exposure** Avoid contact with eyes.
- **Other operational conditions affecting consumer exposure** No special measures required.
- **Other operational conditions affecting consumer exposure during the use of the product** Not applicable.
- **Risk management measures**
- **Worker protection**
- **Organisational protective measures** No special measures required.
- **Technical protective measures** Ensure that suitable extractors are available on processing machines
- **Personal protective measures**
Do not inhale gases / fumes / aerosols.
Avoid contact with the eyes.
Tightly sealed goggles conforming to EN166.
- **Measures for consumer protection** Ensure adequate labelling.
- **Environmental protection measures**
- **Water** No special measures required.
- **Disposal measures** Ensure that waste is collected and contained.
- **Disposal procedures**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Waste type** Partially emptied and uncleaned packaging
- **Exposure estimation**
- **Consumer** Not relevant for this Exposure Scenario.
- **Guidance for downstream users** No further relevant information available.

GB