

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

• Product identifier

• Trade name: SANOTHERM 500 MC

• Relevant identified uses of the substance or mixture and uses advised against

• Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

• Product category PC4 Anti-Freeze and de-icing products

• Application of the substance / the preparation Inhibitor antifreeze product

• Details of the supplier of the safety data sheet

• Manufacturer/Supplier:

PRAGMA CHIMICA srl
Via Dell'Industria, 48/B
36071 Arzignano (VI)
luca@pragmachimica.it

• Further information obtainable from: product safety department, see section 16

• Emergency telephone number:

During workin time 8.30-18.00: +39 0444 451373

After working time and 24h/day :

ITALY : Centro Antiveleni Niguarda Milano tel. +039 02 66101029

GERMANY: Notrufnummer +49 361 730730

AUSTRIA: Notrufnummer +43 14064343

2 Hazards identification

• Classification of the substance or mixture

• Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R22: Harmful if swallowed.



Xi; Sensitising

R43: May cause sensitisation by skin contact.

• Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

• Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

• Label elements

• Labelling according to EU guidelines:

The product has been classified and marked in accordance with Direttive 1999/45/CE

• Code letter and hazard designation of product:

Xn Harmful

• Hazard-determining components of labelling:

mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one [EC no. 220-239-6] (3:1)
ethanediol

• Risk phrases:

22 Harmful if swallowed.

43 May cause sensitisation by skin contact.

• Safety phrases:

23 Do not breathe fumes/aerosol.

28 After contact with skin, wash immediately with plenty of soap and water.

36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

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

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture: consisting of the following components.

- **Dangerous components:**

CAS: 107-21-1 EINECS: 203-473-3	ethanediol ☒ Xn R22 Acute Tox. 4, H302	50-100%
CAS: 55965-84-9	mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2-isothiazol-3-one [EC no. 220-239-6] (3:1) T R23/24/25; ☒ C R34; ☒ Xi R43; ☒ N R50/53 R33 ☒ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 3, H331; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Sens. 1, H317	< 5.0%

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

4 First aid measures

- **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.
rescuers must be well equipped
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Take off immediately all contaminated clothing.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Call for a doctor immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture**
CO₂
Carbon monoxide (CO)
Under certain fire conditions, traces of other toxic gases cannot be excluded.

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- **Advice for firefighters**
- **Protective equipment:** *Firefighters, and others exposed, wear self-contained breathing apparatus.*

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **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.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about fire - and explosion protection:** *No special measures required.*
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** *Store in a cool location. (0°-35°C)*
- **Information about storage in one common storage facility:** *Not required.*
- **Further information about storage conditions:** *Keep container tightly sealed.*
- **Storage class:** 10
- **Specific end use(s)** *No further relevant information available.*

8 Exposure controls/personal protection

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

Ingredients with limit values that require monitoring at the workplace:

107-21-1 ethanediol

WEL Short-term value: 104** mg/m³, 40** ppm
Long-term value: 10* 52** mg/m³, 20** ppm
Sk *particulate **vapour

- **Additional information:** *The lists valid during the making were used as basis.*
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

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- **Respiratory protection:**
Not required.
Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:** *Protective gloves*
- **Material of gloves:** *Neoprene gloves*
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** *Goggles recommended during refilling*
- **Body protection:** *Use protective suit.*

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form:	Fluid
Colour:	Colourless
· Odour:	Characteristic

- **pH-value at 20°C:** 6.5 (sol acq. 10%)

- **Change in condition**

Melting point/Melting range:	-3 °C
Boiling point/Boiling range:	> 145°C

- **Flash point:** 111°C

- **Flammability (solid, gaseous):** Not applicable.

- **Ignition temperature:** 410°C

- **Self-igniting:** Product is not selfigniting.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Explosion limits:**

Lower:	3.2 Vol %
Upper:	53.0 Vol %

- **Vapour pressure at 20°C:** 0.1 hPa

- **Density at 20°C:** 1.1 g/cm³

- **Solubility in / Miscibility with water:** Fully miscible.

- **Segregation coefficient (n-octanol/water):** *Not determined.*

- **Solvent content:**

Organic solvents:	0.0 %
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- **Other information**

No further relevant information available.

10 Stability and reactivity

- **Reactivity**

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*

- **Possibility of hazardous reactions** *No dangerous reactions known.*

- **Conditions to avoid** *No further relevant information available.*

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- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

107-21-1 ethanediol

Oral	LD50	5840 mg/kg (rat)
Dermal	LD50	9530 mg/kg (rabbit)

55965-84-9 mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one [EC no. 220-239-6] (3:1)

Oral	LD50	67 mg/kg (rat)
Dermal	LD50	>140 mg/kg (rat)
Inhalative	LC50/4 h	0.17 mg/l (rat)

- **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** No irritating effect.
- **Sensitization:** Sensitization possible through skin contact.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

12 Ecological information

- **Toxicity**
Note: no ecological testing was carried out on the product. Data are based on the properties of the main components.

- **Acquatic toxicity:**

55965-84-9 mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2Hisothiazol-3-one [EC no. 220-239-6] (3:1)

EC50	0.12 mg/l (daphnia)
EC50/96h	0.22 mg/l (Oncorhynchus mykiss)
	0.025 mg/l (Selenastrum capricornutum)

- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **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.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

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· **Other adverse effects** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 03 00	off-specification batches and unused products
16 03 05	organic wastes containing dangerous substances

· **Uncleaned packaging:**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

14 Transport information

· **UN-Number**

· **ADR, ADN, IMDG, IATA** Void

· **UN proper shipping name**

· **ADR, ADN, IMDG, IATA** Void

· **Transport hazard class(es)**

· **ADR, ADN, IMDG, IATA**

· **Class** Void

· **Packing group**

· **ADR, IMDG, IATA** Void

· **Environmental hazards:**

· **Marine pollutant:** No

· **Special precautions for user** Not applicable.

· **Transport in bulk according to Annex II of**

MARPOL73/78 and the IBC Code Not applicable.

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Labelling according to EU guidelines:** See section 2

· **National regulations:**

· **Other regulations, limitations and prohibitive regulations** Not applicable

· **Substances of very high concern (SVHC) according to REACH, Article 57** None

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

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.

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· Relevant phrases

- H301 Toxic if swallowed.
- H302 Harmful if swallowed.
- H311 Toxic in contact with skin.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H331 Toxic if inhaled.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- R22 Harmful if swallowed.
- R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- R33 Danger of cumulative effects.
- R34 Causes burns.
- R43 May cause sensitisation by skin contact.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· Department issuing MSDS: Research and development department**· * Data compared to the previous version altered.**

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