

SAFETY DATA SHEET

Safety Data Sheet according to (EC) No. 1907/2006.

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

1.1. Product identifier:

Steel & Copper cleaner, Part No 99990002

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

Steel and copper cleaning agent.

1.3. Details of the supplier of the safety data sheet:

SCANPAN A/S Phone.: + 45 8774 1400

Industrivej 49

DK 8550 Ryomgaard www.scanpan.dk

Responsible person for the safety data sheet (e-mail): service@scanpan.dk

1.4. Emergency telephone number:

NHS (England or Wales): Dial 111 or 0845 4647 NHS 24 (Scotland): Dial 111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture:

CLP (1272/2008): None

2.2. Label elements:

EUH210: Safety data sheet available on request.

2.3. Other hazards: None known

PBT/vPvB: No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

SECTION 3: Composition/information on ingredients

3.2. Mixtures:

| % w/w | Substance name | CAS-no. | EC-no. | Index-no. | REACH reg.no. | Classification | Note |
|-------|-------------------|------------|-----------|-----------|---------------|----------------------------------------|------|
| 8-13 | Citric acid | 77-92-9 | 201-069-1 | - | - | Not classified | - |
| 8-10 | Ammonium chloride | 12125-02-9 | 235-186-4 | - | - | Acute Tox. 4;H302 Eye Irrit. 2;H319 | 1 |

1: The substance has an occupational exposure limit.

Wording of hazard statements - see section 16.

SECTION 4: First-aid measures

4.1. Description of first aid measures:

Inhalation: Move the affected person to fresh air. Keep at rest. If needed: Get medical attention.

Skin contact: Remove contaminated clothing and wash skin with water and mild soap. If irritation persists: Seek medical advice.

Eye contact: Immediately flush with water or physiological salt water for at least 15 minutes, holding eyelids open, remember to remove contact lenses, if any. If irritation persists: Seek medical advice.

Ingestion: Rinse mouth and drink plenty of water. If needed: Get medical attention.

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

Can cause irritation of eyes. May cause slight irritation of skin, lungs and gastrointestinal tract.

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

Show this safety data sheet to a physician or emergency ward.

SECTION 5: Fire-fighting measures

5.1. Extinguishing media:

Use water spray (never water jet), dry chemical, foam or carbon dioxide.

5.2. Special hazards arising from the substance or mixture:

Do not inhale smoke fumes. In case of fire, the product may form hazardous decomposition products such as oxides of carbon.

5.3. Advice for firefighters:

Remove containers if possible or keep containers cool by spraying with water. Use breathing apparatus with an independent source of air.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment - see section 8. Avoid further spreading. Ventilate area of leak or spill.

6.2. Environmental precautions:

Do not empty into drains – see section 12. Inform appropriate authorities in accordance with local regulations.

6.3. Methods and material for containment and cleaning up:

Absorb spilled liquid with a cloth, inert material, or similar. Flush area of spill with plenty of water. Further handling of spillage - see section 13.

6.4. Reference to other sections:

See references above.

SECTION 7: Handling and storage

7.1. Precautions for safe handling:

Provide adequate ventilation. Avoid contact with skin, eyes and clothing. Wash with plenty of water and soap after end use.

7.2. Conditions for safe storage, including any incompatibilities:

Store in a tightly closed original container in a well-ventilated area.

7.3. Specific end use(s):

See section 1.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters:

Occupational exposure limits (EH40/2005):

| Substance | 8 h TWA | 15 min. STEL |
|-------------------------|----------------------|----------------------|
| Ammonium chloride, fume | 10 mg/m ³ | 20 mg/m ³ |

DNEL/PNEC: No CSR.

8.2. Exposure controls:

Appropriate engineering controls: None particular.

Personal protective equipment:

Inhalation: Normally not necessary.

Skin: Wear protective gloves of e.g. nitrile (EN374). Breakthrough time, approx. 3 hours.

Eyes: Wear tight fitting safety goggles (EN166) when there is a risk of splashes.

Environmental exposure controls: None particular.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties:

| | |
|---------------------------------------------------------------|-------------------|
| Appearance: | White liquid |
| Odour: | Slightly aromatic |
| pH: | 4-5 |
| Melting point / freezing point (°C): | <0 |
| Initial boiling point and boiling range (°C): | No available data |
| Decomposition temperature (°C): | No available data |
| Flash point (°C): | >110 |
| Evaporation rate: | No available data |
| Flammability (solid, gas): | Not relevant |
| Upper/lower flammability or explosive limits (vol.-%): | No available data |
| Vapour pressure (mbar, 25°C): | No available data |
| Vapour density (air=1): | No available data |
| Relative density (g/ml): | >1 |
| Solubility: | Soluble |
| Partition coefficient: n-octanol/water, Log K _{ow} : | No available data |
| Auto-ignition temperature (°C): | No available data |
| Viscosity: | No available data |
| Explosive/Oxidising properties: | Not explosive |
| 9.2. Other information: | None relevant |

SECTION 10: Stability and reactivity

10.1. Reactivity:

No available data.

10.2. Chemical stability:

Stable under the recommended storage conditions - see section 7.

10.3. Possibility of hazardous reactions:

None known.

10.4. Conditions to avoid:

None known.

10.5. Incompatible materials:

None known.

10.6. Hazardous decomposition products:

When heated to high temperatures (decomposition) toxic gasses are formed such as oxides of carbon.

SECTION 11: Toxicological information

11.1. Information on toxicological effects:

| Hazard class | Data | Test | Data source |
|-----------------------|----------------------------------------------------------|-------------------|--------------|
| Acute toxicity: | | | |
| Inhalation | No available/applicable data. | - | - |
| Dermal | LD ₅₀ (rat) = >2000 mg/kg (Citric acid) | OECD 402 | ECHA |
| | LD ₅₀ (rat) = >2000 mg/kg (Ammonium chloride) | EU Method B.3 | ECHA |
| Oral | LD ₅₀ = >5000 mg/kg (product) | No info | Supplier |
| | LD ₅₀ (rat) = 5400 mg/kg (Citric acid) | OECD 401 | ECHA |
| | LD ₅₀ (rat) = 1410 mg/kg (Ammonium chloride) | No info | ECHA |
| Corrosion/irritation: | Moderate skin irritation, rabbit (Ammonium chloride) | No info | ECHA |
| Sensitization: | Not sensitizing, guinea pig (Ammonium chloride) | EPA 540/9-82-025 | ECHA |
| CMR: | No CMR effects (Citric acid) | OECD 475, No info | ECHA, IUCLID |
| | No mutagenic effects (Ammonium chloride) | In vivo | ECHA |

Information on likely routes of exposure: inhalation, skin and ingestion.

Symptoms:

Inhalation: Vapours may cause slight irritation to the airways.

Skin: May cause irritation.

Eyes: Can cause eye irritation with redness and pain.

Ingestion: May cause irritation of the gastrointestinal tract, nausea, vomiting and headache.

Chronic effects: Long term or repeated skin contact may cause irritation and dry, cracked skin.

SECTION 12: Ecological information

12.1. Toxicity:

| Aquatic | Data | Test (Media) | Data source |
|---------|------------------------------------------------------------------------------------|--------------|-------------|
| Fish | LC ₅₀ (<i>Leuciscus idus melanotus</i> , 96h) = 440 mg/l (Citric acid) | No info | ECHA |
| | LC ₅₀ , (<i>Cyprinus carpio</i> , 96h) = 209 mg/l (Ammonium chloride) | E03-05:APHA | ECHA |
| Daphnia | EC ₅₀ (<i>Dreissena polymorpha</i> , 48h) = >50 mg/l (Citric acid) | OECD 202 | ECHA |
| | EC ₅₀ , (<i>Daphnia magna</i> , 48h) = 101 mg/l (Ammonium chloride) | ASTM E729-80 | ECHA |
| Algae | EC ₅₀ (<i>Scenedesmus quadricauda</i>) = 640 mg/l (Citric acid) | No info | ECHA |
| | EC ₅₀ , (<i>Navicula</i> sp. 10d) = 90,4 mg/l (Ammonium chloride) | No info | ECHA |

12.2. Persistence and degradability:

Citric acid is readily biodegradable (98%, OECD 301B). Ammonium chloride is an inorganic substance, methods for the determination of the biological degradation is not applicable to inorganic substances

12.3. Bioaccumulative potential:

Citric acid: Log K_{ow} < 1 - No significant bioaccumulative potential.

12.4. Mobility in soil:

Citric acid: K_{oc} < 10 - Large mobility in soil.

12.5. Results of PBT and vPvB assessment:

No ingredients are PBT/vPvB, according to the criteria in REACH Annex XIII.

12.6. Other adverse effects:

None known

SECTION 13: Disposal considerations

13.1. Waste treatment methods:

Disposal should be according to local, state or national legislation.

EWC-code: 20 01 01 (mixture itself)
15 02 03 (paper towel, inert material etc. contaminated with the mixture)

SECTION 14: Transport information

Not dangerous goods (ADR/RID/IMDG/IATA).

14.1. UN-no.: None

14.2. UN proper shipping name: None

4.3. Transport hazard class(es): None

14.4. Packing group: None

14.5. Environmental hazards: No

14.6. Special precautions for user: None

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

SECTION 15: Regulatory information

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

None

15.2. Chemical Safety Assessment:

No CSR.

SECTION 16: Other information

Hazard statements mentioned in section 2 and 3:

H302: Harmful if swallowed.

H319: Causes serious eye irritation.

EUH210: Safety data sheet available on request.

Abbreviations:

CMR = Carcinogenicity, mutagenicity and reproductive toxicity.

CSR = Chemical Safety Report

DNEL = Derived No-Effect Level

EC₅₀ = Effect Concentration 50%

FW = Fresh Water

LC₅₀ = Lethal Concentration 50%

LD₅₀ = Lethal Dose 50%

PBT = Persistent, Bioaccumulative, Toxic

PNEC = Predicted No-Effect Concentration

vPvB = very Persistent, very Bioaccumulative

Literature:

ECHA = European Chemicals Agency

Training advice:

No special training is required. However, the user should be well instructed in the execution of his/her task, be familiar with this Safety Data Sheet and have normal training in the use of personal protective equipment.

Changes since the previous edition:

Not relevant

Prepared by: Altos a/s – Tonsbakken 16-18 - 2740 Skovlunde - Phone +45 - 38 34 77 98 / AP - Quality control: PW