

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 03.2021

Version number 4

Revision: 03.2021

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

1.1 Product identifier

Trade name: CLEAR 'N' CLEAN

1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.

Application of the substance / the mixture Biocidal agent used in swimming pools.

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier:

Mineral Supplies International Ltd

Church Lane

Horsted Keynes,

Sussex, RH17 7AR

UK

tel: +44 (0) 1825790524

Further information obtainable from: sales@mineralsi.com

1.4 Emergency telephone number: National Poisons Information Service (NPIS): 0870 600 6266 (UK only)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

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



N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS07

GHS09

Signal word Warning

Hazard statements

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

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- P103 Read label before use.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P273 Avoid release to the environment.
- P264 Wash thoroughly after handling.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards
· Results of PBT and vPvB assessment
· PBT:

Does not meet the specific criteria detailed in Annex XIII of Regulation 1907/2006 and the substance is not considered as a PBT.

· vPvB:

Does not meet the specific criteria detailed in Annex XIII of Regulation 1907/2006 and the substance is not considered as a vPvB.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterization: Mixtures
· Description: Mixture of substances listed below with non-hazardous additions.

· Dangerous components:

| | | |
|---|--|---------|
| CAS: 77-92-9 EINECS: 201-069-1 Reg.nr.: 01-2119457026-42-XXXX | citric acid ☒ Xi R36 ⚠ Acute Tox. 4, H312; Eye Irrit. 2, H319 | 10-<20% |
| CAS: 7758-99-8 EINECS: 231-847-6 Reg.nr.: 01-2119520566-40-XXXX | copper sulphate pentahydrate ☒ Xn R22; ☒ Xi R36/38; ☒ N R50/53 ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319 | 3-<10% |

· Additional information:

 All the percentages given are percentages by weight unless stated otherwise.
 For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures
· General information: In case of doubt or when symptoms persist, always call a doctor.

· After inhalation: Supply fresh air; consult doctor in case of complaints.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

Rinse with water for at least 15 minutes.

Remove contact lenses.

· After swallowing:

Do not induce vomiting; call for medical help immediately.

Rinse out mouth and then drink plenty of water.

· 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

For specialist advice physicians should contact the anti poison control centre.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media
· Suitable extinguishing agents:

Not applicable. The product is not flammable.

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- Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** Formation of toxic gases is possible during heating or in case of fire.
- **5.3 Advice for firefighters**
- **Protective equipment:**
Standard protective clothing for firefighters.
Wear self-contained breathing apparatus.
- **Additional information** 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**
Wear protective equipment. Keep unprotected persons away.
Avoid contact with eyes, skin and clothing.
Use suitable protective equipment (see Chapter 8).
- **6.2 Environmental precautions:**
Do not allow to enter sewers/ surface or ground water.
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Shut off leaks if without risk.
If possible dike the spill with inert material.
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
- **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**
The handling of this product should be done in good industrial hygiene and with safety procedures.
Ensure good ventilation/exhaustion at the workplace.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool, dry, well ventilated place.
- **Information about storage in one common storage facility:**
Do not store together with materials with which contact should be avoided (see chapter 10).
- **Further information about storage conditions:** Store in cool, dry conditions in well sealed receptacles.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

| | | |
|---|----------------------------|---|
| · DNELs | | |
| 7758-99-8 copper sulphate pentahydrate | | |
| Oral | DNEL (Long Term; Systemic) | 0.041 mg/kg BW/day (General Population) |
| Dermal | DNEL (Long Term; Systemic) | 137 mg/kg BW/day (Workers) |

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| · PNECs | |
|---|--|
| 7758-99-8 copper sulphate pentahydrate | |
| PNEC | 0.0078 mg/l (Freshwater) 0.0052 mg/l (Seawater) 87 mg/kg dwt (Freshwater Sediment) 676 mg/kg dwt (Seawater Sediment) 65 mg/kg dwt (Soil) 0.230 mg/l (Sewage Water Treatment Plant) |
| 77-92-9 citric acid | |
| PNEC | 0.44 mg/l (Freshwater) 0.044 mg/l (Seawater) 34.6 mg/kg dwt (Freshwater Sediment) 3.46 mg/kg dwt (Seawater Sediment) 33.1 mg/kg dwt (Soil) > 1000 mg/l (Sewage Water Treatment Plant) |

· Additional information:

The lists valid during the making of this safety data sheet were used as basis to compile the above information.

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

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and at the end of work.

Keep away from foodstuffs, beverages and feed.

Avoid contact with the eyes and skin.

Ensure good ventilation/exhaustion at the workplace.

Provide eyewash station and safety shower.

· Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.

· Protection of hands:


Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· Material of gloves

Suitable materials for safety gloves (EN374)

Rubber gloves

· Penetration time of glove material

For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).

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

· Eye protection:


Tightly sealed goggles (EN 166)

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Wear face shield when using in large amount of the product and during raised risk of splattering.

 · **Body protection:** Use protective suit (EN340).

SECTION 9: Physical and chemical properties

| | |
|--|---|
| · 9.1 Information on basic physical and chemical properties | |
| · General Information | |
| · Appearance: | |
| Form: | Liquid |
| Colour: | Blue |
| · Odour: | Characteristic |
| · Odour threshold: | Not determined. |
| · pH-value: | Not determined. |
| · Change in condition | |
| Melting point/Melting range: | Undetermined. |
| Boiling point/Boiling range: | 100 °C |
| · Flash point: | Not applicable. |
| · Flammability (solid, gaseous): | Not applicable. |
| · Ignition temperature: | 1010 °C |
| · Decomposition temperature: | Not determined. |
| · Self-igniting: | Product is not self-igniting. |
| · Danger of explosion: | Product does not present an explosion hazard. |
| · Explosion limits: | |
| Lower: | Not determined. |
| Upper: | Not determined. |
| · Vapour pressure at 20 °C: | 23 hPa |
| · Density: | Not determined. |
| · 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: | |
| Organic solvents: | 0.0 % |
| Water: | 80.0 % |
| VOC (EC) | 0.00 % |
| Solids content: | 100.0 % |
| · 9.2 Other information | No further relevant information available. |

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SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **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** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**
- **Available data:** Based on available data acute toxic effects are not expected.

| | | |
|--|------|--|
| · LD/LC50 values relevant for classification: | | |
| 7758-99-8 copper sulphate pentahydrate | | |
| Oral | LD50 | 482 mg/kg (rat) (OECD 401; EU Method B.1) |
| Dermal | LD50 | > 2000 mg/kg (rat) (OECD 402; EU Method B.3) |

- **Primary irritant effect:**

- **on the skin:**

No irritant effect.

| | | |
|---|----------------|--|
| · 7758-99-8 copper sulphate pentahydrate | | |
| Irritation of skin | Skin Corrosion | - (rabbit) (OECD 404; EU Method B.4) not irritating |

- **on the eye:**

Causes serious eye irritation.

| | | |
|---|---------------|--|
| · 7758-99-8 copper sulphate pentahydrate | | |
| Irritation of eyes | Eye Corrosion | (rabbit) (OECD 405; Method B.5) highly irritating |

- **Respiratory tract:** Not applicable.

- **Ingestion:** Not applicable.

| | | |
|---|----------------------|--|
| · Sensitization: | | |
| 7758-99-8 copper sulphate pentahydrate | | |
| Irritation of skin | Skin Sensibilisation | (Guinea Pigs) (OECD 406; EU Method B.6) not sensitising |

- **Specific Target Organ Toxicity (STOT) single exposure:** Not applicable.

| | | |
|---|----------------------|---|
| · Specific Target Organ Toxicity (STOT) repeated exposure: | | |
| 7758-99-8 copper sulphate pentahydrate | | |
| Oral | NOAEL (rep dose tox) | 1000 mg/kg bw/day (mouse) (EU Method B.26) LOAEL: 2000 ppm |

| | | |
|---|------------------------|---|
| · Repeated dose toxicity | | |
| 7758-99-8 copper sulphate pentahydrate | | |
| Inhalative | NOAEL (rep. dose. tox) | (rat) (OECD 412) LOEL: 0.2 mg/m ³ air MOAEL: ≥ 2 mg/m ³ air |

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· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**

| | |
|---|-------------------------------------|
| · Study results: | |
| 7758-99-8 copper sulphate pentahydrate | |
| Mutagenicity | - (Bacteria) (OECD 471) negative |

* **SECTION 12: Ecological information**

· **12.1 Toxicity**

· **Aquatic toxicity:**

Toxic to aquatic life with long lasting effects.

| | |
|---|----------------------------|
| 7758-99-8 copper sulphate pentahydrate | |
| EC50 (48h) | 0.024 mg/l (Daphnia Magna) |
| LC50 (96h) | < 1 mg/l (fish) |

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **Additional ecological information:**

· **General notes:**

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

· **12.5 Results of PBT and vPvB assessment**

· **PBT:**

Does not meet the specific criteria detailed in Annex XIII of Regulation 1907/2006 and the substance is not considered as a PBT.

· **vPvB:**

Does not meet the specific criteria detailed in Annex XIII of Regulation 1907/2006 and the substance is not considered as a vPvB.

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

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· **Recommendation**

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

Disposal must be made according to official regulations.

· **Uncleaned packaging:**

· **Recommendation:**

Disposal must be made according to official regulations.

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

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

* **SECTION 14: Transport information**

| | |
|---------------------------------------|---|
| · 14.1 UN-Number | UN3082 |
| · ADR, IMDG, IATA | |
| · 14.2 UN proper shipping name | 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (copper sulphate pentahydrate) |
| · ADR | |
| · IMDG | |

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| | |
|---|--|
| · IATA | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (copper sulphate pentahydrate) |
| · 14.3 Transport hazard class(es) · ADR, IMDG, IATA | |
|   | |
| · Class · Label | 9 Miscellaneous dangerous substances and articles. 9 |
| · 14.4 Packing group · ADR, IMDG, IATA | III |
| · 14.5 Environmental hazards: · Marine pollutant: | Product contains environmentally hazardous substances: copper sulphate pentahydrate No |
| · Special marking (ADR): · Special marking (IATA): | Symbol (fish and tree) Symbol (fish and tree) |
| · 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: | Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F |
| · 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | |
| · ADR · Limited quantities (LQ) · Excepted quantities (EQ) | 5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| · Transport category · Tunnel restriction code | 3 - |
| · IMDG · Limited quantities (LQ) · Excepted quantities (EQ) | 5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml |
| · UN "Model Regulation": | UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (copper sulphate pentahydrate), 9, III |

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- European regulations: No further relevant information available.
- 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.

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· Relevant phrases

- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- R22 Harmful if swallowed.
- R36 Irritating to eyes.
- R36/38 Irritating to eyes and skin.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· Abbreviations and acronyms:

- NOEC: No Observed Effect Concentration
- IC50: Inhibition Concentration, 50 percent
- ADR: Accord européen sur le transport 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 Harmonized 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 (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
- Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2
- Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1
- Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

· * Data compared to the previous version altered.