

Safety Data Sheet
acc. to OSHA HCS

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Printing date 06/01/2023
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Version number: 7.04

1 Identification

- **Product identifier**
- **Trade name:** copper sulphate
- **Article number:** 2726
- **CAS Number:**
7758-98-7
- **EC number:**
231-847-6
- **Index number:**
029-004-00-0
- **Application of the substance / the mixture** Laboratory chemicals
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
PANREAC QUIMICA S.L.U.
C/Garraf 2
Polígono Pla de la Bruguera
E-08211 Castellar del Vallès (Barcelona)
- **Information department:** email: product.safety@panreac.com
- **Emergency telephone number:**
Single telephone number for emergency calls: 112 (EU)
Tel.: (+34) 937 489 499

Tel. (+34) 937 489 400
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e-mail: product.safety@itwreagents.com

2 Hazard(s) identification

- **Classification of the substance or mixture**
Acute Toxicity - Oral 4 H302 Harmful if swallowed.
Skin Irritation 2 H315 Causes skin irritation.
Eye Irritation 2A H319 Causes serious eye irritation.

- **Label elements**

- **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

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Trade name: copper sulphate

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· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard statements**

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

· **Precautionary statements**

P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear eye protection / face protection.
P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
P330 Rinse mouth.
P302+P352 If on skin: Wash with plenty of water.
P321 Specific treatment (see on this label).
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P337+P313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2
Fire = 0
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 2
Fire = 0
Reactivity = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.
· **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Substances**

· **CAS No. Description**

7758-98-7 copper sulphate

· **Identification number(s)**

· **EC number:** 231-847-6

· **Index number:** 029-004-00-0

US

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Trade name: copper sulphate

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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.
Involve doctor immediately.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Call a doctor immediately.
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Call a doctor immediately.
- **After swallowing:** Call 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 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Sulfur oxides (SO_x)
Non-combustible.
- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Avoid formation of dust.
Avoid substance contact.
Ensure adequate ventilation
- **Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Avoid formation of dust.
Dispose contaminated material as waste according to section 13.
Clean up affected area.
- **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.
- **Protective Action Criteria for Chemicals**
- **PAC-1:** 7.5 mg/m³
- **PAC-2:** 9.9 mg/m³

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Trade name: copper sulphate

· **PAC-3:** 59 mg/m³

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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Prevent formation of dust.
Any deposit of dust which cannot be avoided must be regularly removed.
- **Information about protection against explosions and fires:** The product is not flammable.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Prevent any seepage into the ground.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Open receptacle only under localized extractor facilities.
Store under lock and key and with access restricted to technical experts or their assistants only.
- **Recommended storage temperature:** Room Temperature
- **Storage class:** 13
- **Specific end use(s):** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation 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.
Vacuum clean contaminated clothing. Do not blow or brush off contamination.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
Required when dusts are generated.
- **Protection of hands:**



Protective gloves

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**

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.

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- **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.
- **For the permanent contact gloves made of the following materials are suitable:**
Recommended thickness of the material: ≥ 0.11 mm
Value for the permeation: Level ≥ 480 min
- **As protection from splashes gloves made of the following materials are suitable:**
Recommended thickness of the material: ≥ 0.11 mm
Value for the permeation: Level ≥ 480 min
- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Use protective suit.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

- | | |
|-----------------|-----------------|
| Form: | Solid |
| Color: | Not determined. |
| Odor: | Characteristic |
| Odor threshold: | Not determined. |

- | | |
|-----------|-----------------|
| pH-value: | Not applicable. |
|-----------|-----------------|

· Change in condition

- | | |
|------------------------------|-----------------|
| Melting point/Melting range: | 200 °C (392 °F) |
| Boiling point/Boiling range: | Undetermined. |

- | | |
|--------------|-----------------|
| Flash point: | Not applicable. |
|--------------|-----------------|

- | | |
|--------------------------------|------------------------------------|
| Flammability (solid, gaseous): | Not determined.
Not applicable. |
|--------------------------------|------------------------------------|

- | | |
|----------------------------|-----------------|
| Decomposition temperature: | Not determined. |
|----------------------------|-----------------|

- | | |
|-----------------------|-----------------|
| Ignition temperature: | Not determined. |
|-----------------------|-----------------|

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

· Explosion limits:

- | | |
|--------|-----------------|
| Lower: | Not determined. |
| Upper: | Not determined. |

- | | |
|-----------------|-----------------|
| Vapor pressure: | Not applicable. |
|-----------------|-----------------|

- | | |
|---------------------------|--|
| Density at 20 °C (68 °F): | 3.603 g/cm ³ (30.067 lbs/gal) |
| Relative density | Not determined. |
| Vapor density | Not applicable. |
| Evaporation rate | Not applicable. |

- | | |
|--|-----------------|
| Partition coefficient (n-octanol/water): | Not determined. |
|--|-----------------|

· Viscosity:

- | | |
|----------|-----------------|
| Dynamic: | Not applicable. |
|----------|-----------------|

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Trade name: copper sulphate

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Kinematic: Not applicable.

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

10 Stability and reactivity

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

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:**
Quantitative data on the toxicological effect of this product are not available.

Components	Type	Value	Species
Oral LD50	300 mg/kg (rat)		

- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**
- **IARC (International Agency for Research on Cancer)** Substance is not listed.
- **NTP (National Toxicology Program)** Substance is not listed.
- **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Water hazard class 3 (Assessment by list): extremely hazardous for water
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.

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Trade name: copper sulphate

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Very toxic for aquatic organisms

· **Results of PBT and vPvB assessment**

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

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Chemicals must be disposed of in compliance with the respective national regulations.
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:**

Disposal must be made according to official regulations.
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.

14 Transport information

· **UN-Number**

· **DOT, ADR, IMDG, IATA**

UN3077

· **UN proper shipping name**

· **DOT**

Environmentally hazardous substance, solid, n.o.s.
(Copper sulfate)

· **ADR, IATA**

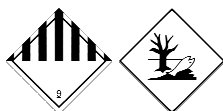
ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S. (Copper sulfate)

· **IMDG**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
SOLID, N.O.S. (Copper sulfate), MARINE POLLUTANT

· **Transport hazard class(es)**

· **DOT, IMDG, IATA**



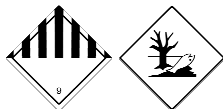
· **Class**

9 Miscellaneous dangerous substances and articles

· **Label**

9

· **ADR**



· **Class**

9 (M7) Miscellaneous dangerous substances and articles

· **Label**

9

· **Packing group**

· **DOT, ADR, IMDG, IATA**

III

· **Environmental hazards:**

· **Marine pollutant:**

Symbol (fish and tree)

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Trade name: copper sulphate

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· Special marking (ADR):	Symbol (fish and tree)
· Special marking (IATA):	Symbol (fish and tree)
· Special precautions for user	Warning: Miscellaneous dangerous substances and articles
· Hazard identification number (Kemler code):	90
· EMS Number:	F-A,S-F
· Stowage Category	A
· Stowage Code	SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Remarks:	Special marking with the symbol (fish and tree).
· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· IMDG	
· Limited quantities (LQ)	5 kg
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
· UN "Model Regulation":	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (COPPER SULFATE), 9, III

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
- **Sara**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is listed.
- **TSCA (Toxic Substances Control Act):** ACTIVE
- **Hazardous Air Pollutants** Substance is not listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **Cancerogenity categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.
- **GHS label elements**
The substance is classified and labeled according to the Globally Harmonized System (GHS).

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Trade name: copper sulphate

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· **Hazard pictograms**



GHS07

· **Signal word** Warning

· **Hazard statements**

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

· **Precautionary statements**

P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear eye protection / face protection.
P301+P312 If swallowed: Call a poison center/doctor if you feel unwell.
P330 Rinse mouth.
P302+P352 If on skin: Wash with plenty of water.
P321 Specific treatment (see on this label).
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P337+P313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **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.

· **Contact:**

· **Date of preparation / last revision** 06/01/2023

· **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
DOT: US Department of Transportation
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Acute Toxicity - Oral 4: Acute toxicity – Category 4
Skin Irritation 2: Skin corrosion/irritation – Category 2
Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

· * **Data compared to the previous version altered.**