

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

1.1 Product identifier

Product name: Calcium oxalate monohydrate
CAS-No.: 5794-28-5
EC-No.: 209-260-1

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

Identified use: Laboratory chemical

1.3 Details of the supplier of the safety data sheet

Company: NETZSCH-Gerätebau GmbH
Wittelsbacherstraße 42
95100 Selb / Germany

Customer service Phone: +49 9287 881-555

1.4 Emergency Phone: +49 9287 881-174 (during office hours)

Fax: +49 9287 881-505

E-mail Address: service@ngb.netzsch.com

2. Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008


Acute Tox. 4 (oral) H302 Harmful if swallowed.

Acute Tox. 4 (dermal) H312 Harmful in contact with skin.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms: 

Signalword: Warning

Hazard statements: H302+H312 Harmful if swallowed or in contact with skin.

Precautionary statements: P270 Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+P35 IF ON SKIN: Wash with plenty of water.

Additional information:

2.3 Other hazards

All chemicals are potentially dangerous.
They are therefor only be handled by specially trained personnel with the necessary care.

Results of PBT- und vPvB assessment

PBT: Not applicable

vPvB: Not applicable

3. Composition / information on ingredients

3.1 Chemical characterization:

Substances

CAS-No. Description: 5794-28-5 Calcium oxalate monohydrate

Identification number(s):

EC number: 209-260-1

Formula: $\text{CaC}_2\text{O}_4 \cdot \text{H}_2\text{O}$

Molar mass [g/mol]: 146,1

4. First aid measures

4.1 Description of first aid measures

General information: Take off contaminated clothing.

After inhalation: Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

After skin contact: Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

After eye contact: Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

After swallowing: Rinse mouth. Call a doctor if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Gastrointestinal complaints, Nausea, Vomiting

4.3 Indication of any immediate medical attention and special treatment needed

none

5. Fire-Fighting measures

5.1 Extinguishing agents

Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
water spray, foam, dry extinguishing powder, carbon dioxide (CO₂)

For safety reasons unsuitable extinguishing agents: water jet

5.2 Special hazards arising from the substance or mixture

In the event of fire development of hazardous combustion gases or vapours possible.

In case of fire, the following can be released:

carbon monoxide (CO), carbon dioxide (CO₂), calcium oxide (CaO)

5.3 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.
Prevent fire-fighting water from entering surface water or groundwater.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment.
Do not breathe dust. Prevent skin contact.

6.2 Environmental precautions

Do not allow to enter sewers / ground water or penetrate the soil.
Keep contaminated washing water and dispose of appropriately.

6.3 Methods and material for containment and cleaning up

Pick up mechanically.
Dispose of the material collected according to regulations.

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.

7. Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin or eyes.
Avoid dust formation.
Ensure good ventilation / exhaustion at the workplace.

Information about fire and explosion protection:

7.2 Conditions for safe storage, including any incompatibilities

Requirements to be safe storage, including any incompatibilities: Keep container tightly closed. Store in a dry place.

Information about storage in one common storage facility: Store away from foodstuffs.

Further information about storage conditions: Use local and general ventilation.

Recommended storage temperature: 15-25°C

7.3 Specific end use(s)

No further relevant information available.

8. Exposure controls / personal protection

Additional information about design of technical facilities:

No additional data; refer to Section 7.

8.1 Control parameters

Ingredients with limit values that require monitoring at the workplace:

5794-28-5 Calcium oxalate monohydrate

WEL (Great Britain)	Long-term value: 10 mg/m ³ (Inhalable fraction) Long-term value: 4 mg/m ³ (Respirable fraction)
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Additional information:

8.2 Exposure controls

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with eyes or skin.

Individual protection measures:

Respiratory protection:

Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P2 (filters at least 94 % of airborne particles, colour code: White). Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190).

Protection of hands:

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Type of material: NBR (Nitrile rubber)

Material thickness: >0,11 mm.

Breakthrough times of the glove material: >480 min (permeation: level 6)

Eye protection:

Tightly sealed safety goggles.

Body protection:

Protective work clothing.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

<u>Appearance</u>	
Form:	solid (powder, crystalline)
Colour:	white
Odour:	odourless
Odour threshold:	no data available
pH-value:	no data available
<u>Change in condition</u>	
Melting point / Melting range:	200°C
Boiling point / Boiling range:	no data available
Flash point:	not applicable
Flammability (solid, gaseous):	non-flammable
Ignition temperature:	not applicable
Decomposition temperature:	no data available
Self-igniting:	not applicable
Danger of explosion:	no data available
<u>Explosion limits</u>	
Lower:	not applicable
Upper:	not applicable
Oxidizing properties:	none
Vapour pressure:	no data available
Density at 20°C:	2,12 g/cm ³
Relative density:	no data available
Vapour density:	not applicable
Evaporation rate:	not applicable
Solubility in / Miscibility with water:	practically insoluble
Partition coefficient (n-octanol / water):	-0,97 (anhydr.)
<u>Viscosity</u>	
Dynamic:	not applicable
Kinematic:	not applicable

9.2 Other information

No further relevant Information available.

10. Stability and reactivity

10.1 Reactivity

Dust explosibility

10.2 Chemical stability

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specification.

10.3 Possibility of hazardous reactions

Reacts with oxidizing agents.

10.4 Conditions to avoid

No further relevant information available.

10.5 Incompatible materials

Water/humidity
Oxidizing agents

10.6 Hazardous decomposition products

In case of fire: see item 5.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD / LC50 values relevant
for classification: no data available

Potential health effects

Skin: May cause irritation. Risk of absorption via the skin.
Eyes: May cause irritation.
Inhalation: Inhalation of dust may cause irritation of the respiratory system.
Ingestion: gastrointestinal complaints, nausea, vomiting
Sensitization: No sensitizing effects known.

CMR effects

Germ cell mutagenicity:
Carcinogenicity: No data available
Reproductive toxicity:

Aspiration hazard:

Shall not be classified as presenting an aspiration hazard.

Specific target organ toxicity – single exposure:

Shall not be classified as a specific target organ toxicant (single exposure).

Specific target organ toxicity – repeated exposure:

Shall not be classified as a specific target organ toxicant (repeated exposure).

Additional toxicological information:

None

Further information:

The product shall be handled with the usual care as necessary for chemicals

12. Ecological information**12.1 Toxicity** (according to 1272/2008/EC):

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

Theoretical Oxygen Demand: 0 mg/mg

Theoretical Carbon Dioxide: 0,6024 mg/mg

12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW) -0,97

12.4 Mobility in soil

no data available

Ecotoxicological effects

Remark: Do not allow to enter waters, waste water, or soil!

12.5 Results of PBT and vPvB assessment

PBT: not applicable

vPvB: not applicable

12.6 Other adverse effects

Slightly hazardous to water.

13. Disposal considerations**Waste treatment methods**

Recommendation: Dispose of residual amounts and non-reusable solutions in accordance with local legal regulations. Waste codes must be assigned by the user based on the application for which the product was used.

Uncleaned packaging

Recommendation: Disposal same as for unused product.

14. Transport information

	ADR	IMDG	IATA
14.1 UN-Number	none	none	none
14.2 UN proper shipping name	not relevant	not relevant	not relevant
14.3 Transport hazard class(es) / -label			
14.4 Packing group:	not relevant	not relevant	not relevant
Transport hazard class(es):	not relevant	not relevant	not relevant
Label:	none	none	none
Danger symbol:			
14.5 Environmental hazards:	none	none	none

14.6 Special precautions for user

No data available.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.No data available.

15. Regulatory information

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

National regulations:

Information about limitation of use: Employment restrictions concerning juveniles must be observed.

Waterhazard class: Water hazard class 1 (Self-assessment): Slightly hazardous for water.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

16. Other Information

Guarantee

This information has been compiled to the best of our knowledge; however, we make no claim as to its completeness and it is meant to serve only as a guideline. NETZSCH-Gerätebau GmbH disclaims any liability for damages which may occur in handling or in contact with these chemicals.

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