

Material Safety Data Sheet

According to Regulation (EU) 2015/830



Trade name:	KRONE Calcium Sulphate Hemihydrate FEED		
Revised on:	25 Oct. 2016	Effective date:	01 Jan. 2017
Version:	5	Replaces version:	4 dated 01 Feb. 2016

Section 1: Identification of the substance/mixture and of the company

1.1 Product identifier

Trade name:	Krone Calcium Sulphate Hemihydrate FEED
Name of the substance:	Calcium sulphate hemihydrate
Chemical name:	Calcium sulphate
Formula:	$\text{CaSO}_4 \cdot 0.5\text{H}_2\text{O}$
Synonyms:	Ground natural gypsum, sulphuric lime
CAS-No.:	7778-18-9
EC-No.:	231-900-3
REACH No.:	01-2119444918-26-0183

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

Use of the substance:	Filler, intermediate product, processing aid, Adsorption and absorption agent for gases or liquids
Relevant identified uses:	Industrial use, Research, Commercial use, analytics, Use by private consumers, Scientific education
Uses advised against:	None

1.3 Details of the supplier providing the material safety data sheet

Manufacturer/Supplier	Hilliges Gipswerk GmbH & Co. KG
Street / P.O. box	Hüttenweg 1
Nat. ID/ zip code/town or city:	DE – 37520 Osterode
Phone:	+49(0) 5522 9909-0
Fax:	+49(0) 5522 9909-90
E-Mail:	wichmann.mark@krone-gips.de

1.4 Emergency number

GIZ-Nord: [(Information centre for poisoning cases)]	+49 (0) 551 19240
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Section 2: Potential hazards

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008

The substance has been classified as not hazardous.

[The product has not been classified according to the CLP-regulation]

2.2 Labelling elements

Labelling according to Regulation (EC) No. 1272/2008

Not applicable

Hazard pictograms

None

Signal word:

None

Hazards information:

None

Safety information:

None

2.3 Other hazards

Results of PBT- and vPvB-assessment:

PBT: Not applicable.

vPvB: Not applicable

Section 3: Composition / information on ingredients

3.1 Substances

This product is a substance.

3.2 Mixtures

Chemical name:

Calcium sulphate

Formula:

$\text{CaSO}_4 \cdot 0.5\text{H}_2\text{O}$

CAS-No.:

7778-18-9

EC-No.:

231-900-3

REACH No.:

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Stabilizers:

None

Contaminations

No contaminations relevant for classification and labelling.

Hazardous ingredients:

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Section 4: First-aid measures

4.1 Description of first-aid measures

General information:	No adverse effects when the substance is used as specified.
After inhalation:	Fresh air, consult physician when complaints occur.
After skin contact:	Wash off with water and soap.
After eye contact:	Rinse eyes under running water with eyelids open for at least 15 minutes and consult an eye specialist.
After ingestion:	Rinse out mouth and drink plenty of water. Seek medical attention.
Notes for the physician:	Skin compatible neutral salt. No allergic reactions known. Soluble dust.

4.2 Main symptoms and effects, both acute and delayed

No specific symptoms or effects known.

4.3 Information on medical emergency assistance or special treatment needed

No additional relevant information available.

Section 5: Fire-fighting measures

5.1 Extinguishing agents

General information:	The product itself is non-combustible. In the event of a surrounding fire, the following points have to be observed:
Suitable extinguishing agents	All extinguishing agents are suitable.
Unsuitable extinguishing agents:	None

5.2 Special hazards arising from the substance or mixture

None

5.3 Advice for firefighters

Special protective equipment.	Wear self-contained breathing apparatus
Further information:	The product is not combustible.

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Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personnel and members of emergency services not trained for emergencies: Ensure sufficient ventilation.
Wear suitable personal protective equipment.
Avoid dust formation.
The product forms slippery surfaces when combined with water.

6.2 Environmental precautions

No special environmental precautions required.

6.3 Methods and material for containment and cleaning up

Take up mechanically, take up dry.

6.4 Reference to other sections

None

Section 7: Handling and storage

7.1 Precautions for safe handling

Precautions: Avoid formation of dust and contact with eyes.
Fire protection measures: The product itself is non-combustible. No special measures required.
Measures to prevent aerosol and dust formation: If technically feasible, use equipment with local evacuation.
Advice relating to general industrial hygiene: Do not eat, drink, smoke or snuff at the workplace.
Wash hands before breaks and after work.
Used work clothing should not be worn outside the workplace.

7.2 Conditions for safe storage, including incompatibilities

Requirements for storage rooms and containers: No specific requirements.
Information on storage with other products: Not required.
Further information about storage conditions: Store in a dry place.
Keep container tightly closed.
Storage category: Non-flammable solid material (LGK 13) [storage category]

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7.3 Specific end use

No additional relevant information available.

Section 8: Exposure controls and personal protection

8.1 Parameters to be monitored

Substance	Dust, alveolar fraction		Dust, respirable fraction		Calcium sulphate		
	Limit Value	8 h (mean value)	Short-term exposure	8 h (mean value)	Short-term exposure	8 h (mean value)	Short-term exposure
Unit	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³	mg/m ³
Germany (TRGS 900)	3 A	6 A	10 E	20 E	6 A	-----	-----
Germany (DFG)	1.5 A	-----	4 E	-----	4 A	-----	-----

8.1.4. Exposure limits under processing conditions

DNEL-values:

Exposure path:	Exposure pattern:	DNEL (employee)	DNEL (consumer)
Inhalation:	Short-term, repeated and acute	5082 mg/m ³	3811 mg/m ³
	Long-term, repeated	21.17 mg/m ³	5.29 mg/m ³
Swallowing:	Short-term, repeated and acute	-----	11.4 mg/kg KW/day
	Long-term, repeated	-----	1.52 mg/kg KW/day

PNECS:

Water:	No acute toxicity for fish, aquatic invertebrates, algae and micro-organisms at the concentrations examined in studies. Acute toxicity of calcium sulphate for fish, algae, aquatic invertebrates and micro-organisms is generally higher than the maximum concentrations tested and larger than the maximum solubility of calcium sulphate in water.
Sediment:	Not applicable due to the general presence of calcium and its sulphates in the environment.
Floor:	Not applicable due to the general presence of calcium and its sulphates in the environment.
Sewage treatment plants:	100 mg/L

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8.2 Limitation and monitoring of exposure

General protection and hygiene measures: Refer to Section 7

Personal protective equipment

Respiratory protection:

In case of dust formation, wear respirator mask with FFP 2-filter.

Hand protection:

In case of prolonged or repeated contact, wear protective gloves.

The glove material must be impermeable and resistant against the product / substance / preparation. Selection of the glove material in consideration of the penetration times, rates of diffusion and the degradation

Glove material

Nitrile-impregnated cotton gloves

Penetration time of the glove material:

Information on the precise penetration time is available from the manufacturer; it has to be observed.

Eye protection:

In the event of any risk of splashing, wear safety glasses with lateral shields
(as defined in EN 166).

Body protection:

Protective work clothing

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Aggregation state:

Solid. Crystalline powder / granulate

Colour:

White, beige, light yellow, grey or reddish

Odour:

Natural

pH (at 20 °C), as-delivered condition:

Not applicable

pH (at 20°C), in aqueous solution:

6...8

Melting point/freezing point:

1450 °C

Boiling point:

Not applicable

Flash point:

Not applicable

Evaporation rate:

Not applicable

Flammability (solid, gaseous):

Inflammable

Upper / lower flammability or explosive limits

Not applicable

Steam pressure:

Not applicable

Vapour density

Not applicable

Relative density:

approx. 2.62 g/cm³

Bulk density:

800-1000 kg/m³

Solubility in water (at 20°C):

8.8 gCaSO₄/ L

Partition coefficient (n-octanol/water):

The substance is inorganic.

Auto-ignition temperature:

Not applicable

Temperature of decomposition into CaO and SO₃:

approx. 1000°C

Viscosity:

Not applicable

Explosive properties:

Not explosive

Oxidizing properties:

Not oxidizing

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9.2 Other information:

None.

Section 10: Stability and reactivity

10.1 Reactivity

No additional relevant information available.

10.2 Chemical stability

No (thermal) decomposition when stored and handled as specified.

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to be avoided

Contamination with sulphur-reducing bacteria and water under anaerobic conditions should be avoided.

10.5 Incompatible materials

None known.

10.6 Hazardous decomposition products

Decomposition sets in at temperatures above 1450°C. Decomposition under formation of sulphur trioxide and calcium oxide.

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Section 11: Toxicological Information

11.1 Information on toxicological effects

Relevant hazard class	Activation threshold	Species	Method [OECD]	Comment
Acute coral toxicity	LD50 > 1581 mg/kg bw	Rat	420	
Acute dermal toxicity	Not applicable			No dermal toxicity due to the low absorption potential.
Acute inhalative toxicity	LC50 > 2.61mg/L	Rat	403	Maximum dose that can be administered
Corrosive/irritant effect on the skin	Not applicable	Rabbit	404	Not irritant
Serious damage/irritation to the eyes	Not applicable	Rabbit	405	Not irritant
Allergisation of respiratory tract/skin	Not applicable	Guinea pig	406	Substance has no allergisation effect on skin
Gamete mutagenity	Not applicable	In vitro tests	471 476	No mutagenity
Carcinogenity	Not applicable	Mouse:	474	No mutagenity No carcinogenity through calcium sulphate
Reproduction toxicity	NOAEL 790 mg/kg bw	Rat	422	No signs for reproductive toxicity observed.
STOT in case of one-time exposure:	Not applicable			No toxicities for organs observed in short-term tests
STOT with repeated exposure	Not applicable			No signs for repeated dose toxicity of calcium sulphate for specific target organs.
Aspiration risk	Not applicable			No risk of aspiration anticipated

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Section 12: Environmental information

12.1 Toxicity

Aquatic toxicity: No additional relevant information available.

12.2 Persistence and degradability

No additional relevant information available.

12.3 Bioaccumulation potential

No additional relevant information available.

12.4 Mobility in soil

No additional relevant information available.

Other ecological information: *General information:* Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

12.5 Results of PBT- and vPvB-assessment

PBT:	Not applicable.
vPvB:	Not applicable.

12.6 Other harmful effects:

No additional relevant information available.

Section 13: Disposal considerations

13.1 Waste treatment process

Recommendation:	Disposal in accordance with the applicable government regulations
European waste catalogue:	
17 08 Gypsum-based construction materials	17 08 02 Gypsum-based construction materials other than those mentioned in 17 08 01.
17 09 other construction and demolition waste	17 09 04 mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03.
Uncleaned packaging - recommendation:	Contaminated packages are to be emptied as completely as possible. After appropriate cleaning, they may be re-used or recycled.

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Section 14: Transport information

14.1 UN- Number

ADR, IMDG, IATA: not applicable

14.2 Proper UN-shipping name:

ADR, IMDG, IATA: not applicable

14.3 Transport hazard classes

ADR, IMDG, IATA: not applicable

14.4 Pack group

ADR, IMDG, IATA: not applicable

14.5 Environmental hazards

Not applicable

14.6 Special precautions for the user:

Not applicable

14.7 Transportation in bulk according to Annex II of MARPOL-agreement And according to IBC-Code

Not applicable

UN "Model Regulation": Not applicable

Section 15: Legislation

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

National regulations:

Water hazard class	Slightly hazardous to waters – WGK 1 (Appendix 4, VwVwS Deutschland dated 27 Jul.2005 [German Administrative Regulation Regarding Water Pollutants])
TRGS 559 (Technical regulation for hazardous materials)	Mineral dust
TRGS 900 (Technical regulation for hazardous materials)	Occupational exposure limits (calcium sulphate, general dust limit)

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15.2 Chemical safety assessment

Not applicable as the substance is not classified as dangerous under Regulation (EC) No. 1272/2008 [CLP]

Section 16: Other information

Department issuing data specification sheet:	Hilliges Gipswerk GmbH & Co. KG, Abteilung Qualitätssicherung, [Quality Assurance Department] Hüttenweg 1, 37520 Osterode am Harz
Contact:	Quality Assurance Department: Tel.-No.: +49(0) 5522 9909-34 Fax No.: +49(0) 5522 990990
Wording of h and p-clauses:	None
Training advice on health and safety:	www.eurogypsum.org
Other notes;	The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In as far as the product described in this material safety data sheet is combined, mixed or processed with other materials or is subjected to any adaptation, the information provided in this material safety data sheet may, unless expressly stated otherwise, not be transferred to the new material manufactured in the above manner.