



Specification

Product Name: Calcium Sulphate

Product Code: SPEC0007

Description:

Our Calcium Sulphate is a premium-quality fine powder. Also known as Gypsum. Calcium Sulphate is a naturally occurring Calcium Salt. It can be used to improve texture, as a stabiliser, a flour treating and leavening agent and to regulate acidity levels in a variety of products. It is a great source of Calcium and can be added to Tofu to increase the calcium content and stability. When used in bread products, it will prevent the dough from becoming sticky and soft and will improve the quality of the product.

Specifications:

Chemical Properties	
Chemical Name	Calcium sulphate dihydrate
Minimum gypsum purity %	99
Water of crystallization %	Maximum 23
Moisture Content %	0% at manufacture
Solubility of gypsum in water g / litre	2.1
pH	7
Chemical Composition	CaSO ₄ .2H ₂ O

Physical Properties	
Colour	White
Colorometer L* value	92.5
Colorometer a* value	0.25
Colorometer b* value	3
Mean particle diameter (microns)	20
Seive Analysis (Mesh size and % weight retained)	2.5% at 150 µm 10% at 75 µm
Specific gravity of gypsum	2.32
Apparent Density (g/cm ³)	0.9
Bulk density (loose) kg / m ³	900
Bulk density (compacted) kg / m ³	1200
Gypsum Hardness (MOH scale)	2

Ingredients:

Calcium Salt (E516)

Dietary Information:

Suitable for Vegans & Vegetarians, Non-GMO, Gluten Free.

Storage:

Store in dry, cool conditions and not in direct sunlight.

Packaging:

Size	EAN
100g	5060341110597
250g	5060341110603
500g	5060341110658
5kg	5056191008740
10kg	5056191008757

Shelf Life:

60 months from production date.

Allergen Declaration

Allergen	Contains (Y/N)
Cereals containing Gluten	N
Crustaceans	N
Eggs	N
Fish	N
Peanuts	N
Soybeans	N
Milk	N
Nuts	N
Celery	N
Mustard	N
Sesame Seeds	N
Sulphur Dioxide and Sulphites (at concentration of more than 10mg/kg or 10mg/L in terms of Sulphur Dioxide)	N
Lupin	N
Molluscs	N



Material Safety Data Sheet

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

1.1 – Product Identifier

Product name: Ground Gypsum Superfine White

Product code: SPEC0007

Gypsum

CAS 7778-18-9

EC / 231-900-3

REACH number: 1-2119444918-26

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

Use of the substance: Fertilisers, Fillers, Food/feedstuff additives, Intermediates, Laboratory chemicals, Pharmaceutical substance, pH-regulating agents, Process regulators, other than polymerisation or vulcanisation processes, Processing aid, not otherwise listed, Agents adsorbing and absorbing gases or liquids, Colouring agents, pigments, Complexing agents.

Relevant identified uses: the product is intended for industrial use, professional use, private use, research, analysis and scientific education.

1.3 – Suppliers Details

Special Ingredients Ltd, 4 Foxwood View, Chesterfield, S41 9RN. Tel: 0044 (0)1246 906247.

E-mail address: <https://specialingredients.co.uk/pages/contact>.

Emergency Telephone Contact: 07387 330318.

2: Hazard Identification:

2.1 – Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

This substance does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This substance does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

This substance does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This substance does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2 – Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

No labelling requirements for this substance.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

Safety phrase:

S 22 Do not breathe dust.

2.3 – Other hazards

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The substance does not satisfy the PBT or vPvP criteria in accordance with annexe XIII of the REACH regulations EC 1907/2006.

3: Composition and Information on Ingredients:

3.1 – Substances

Composition

Synonym: Gypsum

Identification	(EC) 1272/2008	67/548/EEC	Note	%
CAS: 7778-18-9 EC: 2319003 REACH: 1-2119444918-26 SULFATE DE CALCIUM SO ₄ + 2H ₂ O	(CAS-No.) 814-80-2 (EC-No.) 212-406-7		[1]	100.00 %

Information on ingredients:

[1] Substance for which maximum workplace exposure limits are available.

3.2 – Mixtures

No substances fulfil the criteria set forth in annexe II section A of the REACH regulation (EC) n° 1907/2006.

4: First Aid Measures:

As a general rule, in case of doubt or if symptoms persist, always call a doctor.
NEVER induce swallowing by an unconscious person.

4.1 – Description of first aid measures

In the event of splashes or contact with eyes:

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.
If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin:

If some discomfort appears immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

In the event of swallowing:

Seek medical attention: Skin – friendly neutral salt. No allergic reactions known. Soluble dust.

4.2 – Most important symptoms and effects, both acute and delayed

No specific symptoms or effects have been reported.

4.3 – Indication of any immediate medical attention and special treatment needed

None

5: Firefighting Measures:

Non-flammable.

5.1 – Extinguishing media

Suitable methods of extinction

Use any means suitable for extinguishing surrounding fire.

**5.2 – Special hazards arising from the substance or mixture**

None.

5.3 – Advice for firefighters

Product itself does not burn.

Special protective equipment for fire-fighters: None.

6: Accidental Release Measures:**6.1 – Personal precautions, protective equipment and emergency procedures**

Consult the safety measures listed under headings 7 and 8.

For fire-fighters

Fire-fighters will be equipped with suitable personal protective equipment (See section 8).

6.2 – Environmental precautions

Prevent any material from entering drains or waterways.

6.3 – Methods and material for containment and cleaning up

Retrieve the product by mechanical means (sweeping/vacuuming) : do not generate dust.

6.3 – Reference to other sections

None

7: Handling And Storage:

Requirements relating to storage premises apply to all facilities where the substance is handled.

7.1 – Precautions for safe handling

Always wash hands after handling.

No special provisions if the product is used appropriately.

Fire prevention:

Product itself does not burn.

Coordinate fire fighting measures to the fire surroundings.

Recommended equipment and procedures:

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Prohibited equipment and procedures:

No smoking, eating or drinking in areas where the substance is used.

7.2 – Conditions for safe storage, including any incompatibilities

No data available.

Storage

To avoid the exposure to moisture.

Packaging

Always keep in packaging made of an identical material to the original.

7.3 – Specific end use(s)

No data available.

8: Exposure Controls/ Personal Protection:**8.1 – Control parameters**



Occupational exposure limits :

ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010):

CAS 7778-18-9	TWA: 10 mg/m3	STEL: -	Ceiling: -	Definition: -	Criteria: I	
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Germany - AGW (BAuA - TRGS 900, 21/06/2010) :

CAS 7778-18-9	VME: -	VME: 6 /mg/m3 A	Excess	Notes DFG		
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Belgium (Order of 19/05/2009, 2010)

CAS 7778-18-9	TWA: 10 mg/m3	STEL: -	Ceiling: -	Definition: -	Criteria: -	
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France (INRS - ED984 :2008):

CAS 7778-18-9	VME-ppm: -	VME-mg/m3: 10	VLE-ppm: -	VLE-mg/m3: -	Notes: -	TMP No: -
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Spain (Instituto Nacional de Seguridad e Higiene en el Trabajo (INSHT), Mayo 2010):

CAS 7778-18-9	TWA: 10 mg/m3	STEL: -	Ceiling: -	Definition: -	Criteria: -	
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Ireland (Code of practice for the safety, Health and Welfare at Work, 2010):

CAS 7778-18-9	TWA: 10 mg/m3	STEL: -	Ceiling: -	Definition: -	Criteria: -	
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Poland (2009):

CAS 7778-18-9	TWA: 10 mg/m3	STEL: -	Ceiling: -	Definition: -	Criteria: TI	
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USA / OSHA PEL (Occupational Safety and Health Administration, Permissible Exposure Limits):

CAS 7778-18-9	TWA: 15 mg/m3	STEL: -	Ceiling: -	Definition: -	Criteria: T	
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Substance (mg/m3):

Country (dust respirable limit value 8 h / dust respirable limit value short time / dust inhalable limit value 8 h / dust inhalable limit value short time)

Austria (5/10/10/20); Belgium (3/-/10/-) ; Denmark (-/-/10/20) ; France (5 respirable aerosol/-/10/-) ; Germany (AGS) (3/6/10/20) ; Germany (DFG) (1,5/-/4/-) ; Hungary (6/-/10/-) ; Latvia (4/-/-/-) ; Poland (-/-/10/-) ; Spain (3/-/10/-) ; Sweden (5/-/10/-) ; Switzerland (3/-/10/-) ; USA (OSHA) (5/-/15/-) ; United Kingdom (4/-/10/-).

Remarks:

Austria: STV 15 minutes average value

France: Dust inhalable : restrictive statutory limit values.

Germany (AGS): 15 minutes average value, insoluble particulates

Germany (DFG): insoluble particulates

Latvia: dust containing chemicals

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Calcium sulfate (mg/m3):

Country (limit value 8 h / limit value short time)

Austria (5 RA/10 RA); Belgium (10/-); Denmark (5/-); Germany (AGS) (6 RA/-); Germany (DFG) (4 IA et 1,5 RA/-); Hungary (6 RA/-); Latvia (6 R/-); Spain (10 RA/-);

Switzerland (3 RA/-); USA (NIOSH) (10 PT et 5 RA/-).

RA: respirable aerosol

IA: inhalable aerosol

R: respirable

PT: total dust

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Dust mineral respirable (mg/m³):

Country (limit value 8 h / limit value short time)

Belgium (3/-); Denmark (5/10).

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Biological limits:

DNEL values (Derived no-effect level):

DNEL for workers (inhalation): Acute systemic effects: 5082 mg/m³

DNEL for workers (inhalation): Long term systemic: 21.17 mg/m³

DNEL for general population (inhalation): Acute systemic effects: 3811 mg/m³

DNEL for general population (inhalation): Long term systemic: 5.29 mg/m³

DNEL for general population (oral): Acute systemic effects: 11.4 mg/m³

DNEL for general population (oral): Long term systemic: 1.52 mg/m³

PNEC values (Predicted no-effect concentration):

Aquatic: Not acutely toxic to fish, invertebrates, algae and microorganisms at the concentrations tested in the studies. Acute toxicity of calcium sulfate to fish, invertebrates, algae and microorganisms are generally greater than the highest concentrations tested and are greater than the maximum solubility of calcium sulfate in water.

Sediment: Not applicable due to ubiquitous nature of calcium and sulfate ions in the environment.

Soil: Not applicable due to ubiquitous nature of calcium and sulfate ions in the environment.

STP : 100 mg/L

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

Final Use	Workers.
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL:	5082 mg of substance/m ³
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL:	21.17 mg of substance/m ³

Final Use	Man exposed via the environment.
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL:	11.4 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL:	1.52 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL:	3811 mg of substance/m ³

Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL:	5.29 mg of substance/m ³

Predicted no effect concentration (PNEC):

Environmental compartment:	Waste water treatment plant.
PNEC:	100 mg/l

8.2 – Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid breathing dust.

Maintain the general maximum admissible concentration in the workplace (refer to section 8.1). In case of strong dust emission wear respiratory filters type FFP 1.

9: Physical and Chemical Properties:

9.1 – Information on basic physical and chemical properties

General information:

Physical state: powder or dust.

Colour: Colour varies white. beige. light yellow. grey or reddish tinge or brick red

Odour: neutral

Important health, safety and environmental information

pH: Not relevant.

Flash point interval: not relevant.

Vapour pressure (50°C): not relevant.

Density: < 1

Water solubility: Partially soluble. 2g/l

9.2 – Other information

Decomposition into CaSO₄, 1/2 H₂O and H₂O about 140°C (413K).

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Decomposition into CaSO₄ and H₂O about 700°C (973K).

Decomposition into CaO and SO₃ about 1000°C (1273K).

10: Stability and Reactivity:

10.1 – Reactivity

Materials to avoid: No materials known.

10.2 – Chemical stability

This substance is stable under the recommended handling and storage conditions in section 7.

10.3 – Possibility of hazardous reactions

Mixing with an aqueous solution of sodium carbonate will result in the formation of carbon dioxide.

10.4 – Conditions to avoid

Avoid :

- formation of dusts

10.5 – Incompatible materials

None.

10.6 – Hazardous decomposition products

No dangerous products of decomposition.

Decomposition takes place from temperatures above: 1450°C

11: Toxicological Information:

11.1 – Information on toxicological effects

No data available.

11.1.1 – Substances

Acute toxicity:

Acute oral toxicity: Method OECD 420 with rats : LD 50 > 1581mg/kg

SULFATE DE CALCIUM SO₄ + 2H₂O (CAS: 7778-18-9)

Oral route:

DL50 > 1581 mg/kg

Species: Rat

OECD Guideline 420 (Acute Oral Toxicity Fixed Dose Method)

Inhalation route:

LC50 > 2.61 mg/l

Species: Rat

OECD Guideline 403 (Acute Inhalation Toxicity)

Skin corrosion/skin irritation:

SULFATE DE CALCIUM SO₄ + 2H₂O (CAS: 7778-18-9)

Corrosivity:

No observed effect.

Species: Rabbit

OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Species: Rabbit



OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Serious damage to eyes/eye irritation:

SULFATE DE CALCIUM SO₄ + 2H₂O (CAS: 7778-18-9)

Species: Rabbit

OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species: Rabbit

OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species: Rabbit

OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Species: Rabbit

OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitisation:

Acute inhalative toxicity: Method OECD 403 with rats : LC₅₀ > 2.61 mg/L (maximum attainable dose).

SULFATE DE CALCIUM SO₄ + 2H₂O (CAS: 7778-18-9)

Local lymph node stimulation test:

Non-Sensitiser.

Species: Guinea pig

OECD Guideline 406 (Skin Sensitisation)

Guinea Pig Maximisation Test (GMPT) : Non-sensitiser.

Specie : Guinea pig

OECD Guideline 406 (Skin Sensitisation)

Buehler Test: Non-sensitiser.

Species: Guinea pig

OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity:

Germ cell mutagenicity: Method OECD 471 and OECD 476 In Vitro tests: not mutagenic.

Germ cell mutagenicity: Method OECD 474 with mice: not mutagenic.

SULFATE DE CALCIUM SO₄ + 2H₂O (CAS: 7778-18-9)

No mutagenic effect.

Mutagenesis (in vivo):

Negative.

Species: Mouse

OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Mutagenesis (in vitro):

Negative.

OECD Guideline 471 (Bacterial Reverse Mutation Assay)

Carcinogenicity:

SULFATE DE CALCIUM SO₄ + 2H₂O (CAS: 7778-18-9)

Carcinogenicity Test:

Negative.

No carcinogenic effect.

Reproductive toxicant:

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Method OECD 422 with rats: NOAEL = 790 mg/kg (no signs of reproductive toxicity observed).

SULFATE DE CALCIUM SO₄ + 2H₂O (CAS: 7778-18-9)

No toxic effect for reproduction

Study on development:

Species: Rat

OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

12: Ecological Considerations:

12.1 – Toxicity

12.1.1 – Substances

After neutralisation, toxicity is no longer observed. The product can hydrolyse into Calcium and Sulfate Ions. The stated effect can be caused partly by the decomposition products. The ecological data were measured on the hydrolysed product.

Fish toxicity:

LC50 > 79 mg/l

Species: Others

Duration of exposure: 96 h

OECD Guideline 203 (Fish, Acute Toxicity Test)

Crustacean toxicity: EC50 > 79 mg/l

Species: Daphnia sp.

Duration of exposure: 48 h

OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)

Algae toxicity: ECr50 > 79 mg/l

Species: Scenedesmus capricornutum

Duration of exposure: 72 h

OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2 – Persistence and degradability

Abiotic Degradation Physical- and photo-chemical elimination: The product hydrolyses quickly in the presence of water to: Calcium and Sulfate Ions The individual components are poorly eliminated from water.

Inorganic product which is not eliminable from water through biological cleaning processes.

12.2.1 – Substances

Biodegradability: no degradability data is available, the substance is considered as not degrading quickly.

12.3 – Bioaccumulative potential

Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected. No indication to bioaccumulation potential. The ecological data were measured on the hydrolysed product. According to experiences this product is inert and not degradable biologically.

12.4 – Mobility in soil

Water-soluble solid. Natural constituent in soils. If product enters soil, it will be mobile and may



contaminate groundwater.

12.5 – Results of PBT and vPvB assessment

This substance does not meet the criteria for classification as PBT or vPvB.

12.6 – Other adverse effects

According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as dangerous for the environment.

13: Disposal considerations:

Proper waste management of the substance and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1 – Waste treatment methods:

Do not pour into drains or waterways.

Waste codes / waste designations according to EWC

10 12 wastes from manufacture of ceramic goods, bricks, tiles and construction products

10 12 06 discarded moulds

Waste:

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging:

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

14: Transport Information:

Exempt from transport classification and labelling.

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2011 - IMDG 2010 - ICAO/IATA 2012).

15: Regulatory Information:

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

Classification and labelling information included in section 2:

The following regulations have been used:

- Directive 67/548/EEC and its adaptations
- Directive 1999/45/EC and its adaptations
- Regulation EC 1272/2008 modified by regulation EC 286/2011

- Container information:

No data available.

- Particular provisions:

No data available.

15.2 – Chemical Safety Assessment

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No data available.

16: Other Information:

Abbreviations :

DNEL: Derived No-Effect Level

PNEC: Predicted No-Effect Concentration

ADR: European agreement concerning the international carriage of dangerous goods by Road.

IMDG: International Maritime Dangerous Goods.

IATA: International Air Transport Association.

ICAO: International Civil Aviation Organisation

RID: Regulations concerning the International carriage of Dangerous goods by rail.

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