

According to directive 1907/2006/EC, 2020/878  
Version 3.0 Revision date: 12-07-2022  
Trade name: Refractory plaster

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

### **1.1 Product Identification:**

Product name: Refractory plaster (Metal casting plaster)

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

Mixture based on calcium sulphate and silica sand, for foundries.

Identified uses: Professional use.

Usage advised against: Not suitable for DIY.

### **1.3 Details of the supplier of the safety data sheet:**

Responsible distributor : ASSYST bvba / A.S.O.W. bvba  
Hellegatstraat 13a  
2590 Berlaar  
Belgium  
Tel: +32 495 50 61 14 / +32 496 83 70 27  
Website: [www.assyst.org](http://www.assyst.org) / [www.artsuppliesonweb.com](http://www.artsuppliesonweb.com)  
Email: [ao@assyst.org](mailto:ao@assyst.org) / [vera.opsommer@assyst.org](mailto:vera.opsommer@assyst.org)

### **1.4 Emergency Phone Number:**

For Belgium:

Call the **Poison Control Center (070 245 245 - free)**, if not available: **02 264 96 30** (normal rate) or your doctor. In life-threatening situations, always call the European emergency number **112**.

NHS 24 Direct

For help from a GP, visit your GP surgery's website, use an online service to contact your GP, or call the surgery. **For urgent medical help**, use the NHS 111 online service, or **call 111** if you are unable to get help online. **For life-threatening emergencies, call 999** for an ambulance. There is more information about getting medical help on the NHS website.

## **SECTION 2: Hazard identification**

### **2.1 Classification of the substance or mixture:**

#### **Classification according to Directive (EC) No 1272/2008 and its amendments.**

The product does not meet the criteria for being classified as hazardous according to Regulation (EC) No. 1272/2008, as amended.

Depending on the type of processing and use (e.g., grinding, drying), airborne respirable crystalline silica may be generated.

Prolonged and/or massive inhalation of respirable crystalline silica dust can cause pulmonary fibrosis, commonly called silicosis.

The main symptoms of silicosis are cough and dyspnea.

Occupational exposure to respirable crystalline silica dust should be controlled and monitored.

This product should be handled with care to avoid generating dust.

### **2.2 Label elements:**

#### **Labelling according to Directive (EC) No 1272/2008 and its amendments.**

The product is not required to be labeled as defined by Regulation (EC) No. 1272/2008.

### **2.3 Other hazards:**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

#### **Ecological information:**

The substance/mixture does not contain any components believed to have endocrine disrupting properties, according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 on level 0.1% or higher.

#### **Toxicological information:**

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The substance/mixture does not contain any components believed to have endocrine disrupting properties, according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 on level 0.1% or higher.

### **SECTION 3: Composition and information on ingredients**

#### **3.2 Mixture:**

<b>Name of component</b>	<b>CAS no. EC no. Index no. REACH Registration no.</b>	<b>Classification according to Reg. 1272/2008 (CLP) SCL   M-Fac.   ATE</b>	<b>Concentration %</b>
Calcium sulphate	7778-18-9   10034-76-1 231-900-3 - 01-2119444918-26	Not classified	< 30%
Quartz	14808-60-7 238-878-4 - Exempt from registration according to Annex V, p.7	Not classified	< 30%

Product contains less than 1% crystalline silica in respirable fraction.

### **SECTION 4: First aid measures**

#### **4.1 Description of first aid measures:**

##### **General information**

No known delayed effects.

Seek medical advice for all routes of exposure.

##### **In case of eye contact:**

Wash immediately with plenty of drinking water.

##### **In case of skin contact:**

Wash immediately with plenty of water.

Remove soiled clothing.

##### **In case of inhalation:**

Move away from source of dust or transport the injured person to fresh air.

##### **In case of ingestion:**

Rinse mouth with water and drink plenty.

Do not induce vomiting.

#### **4.2 Most important symptoms and effects, both acute and delayed:**

There are no known incidents of health damage attributable to the product.

#### **4.3 Indication of any immediate medical attention and special treatment needed:**

See the above, if you contact a doctor, take this document with you.

### **SECTION 5: Fire-fighting measures**

#### **5.1 Extinguishing media:**

The product is not flammable, use extinguishing media compatible with the surroundings.

#### **5.2 Special hazards arising from the substance or mixture:**

Avoid breathing the products of combustion.

#### **5.3 Advice for firefighters:**

Cool containers with jets of water to prevent decomposition of the product and the development of substances potentially hazardous to health.

Always wear full fire protection equipment.

Collect firefighting water that must not be discharged into the sewer system.

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## **SECTION 6: Accidental release measures for the substance or mixture**

### **6.1 Personal precautions, protective equipment and emergency procedures:**

Avoid contact with eyes and skin, wear protective clothing, see sections 7 and 8.

### **6.2 Environmental precautions:**

Do not disperse into soil, surface water or sewage system.

### **6.3 Methods and material for containment and cleaning up:**

If possible, use dry cleaning means, such as vacuum cleaners.

The product hardens in contact with water, so preserve the collected product from moisture.

### **6.4 Reference to other sections:**

Additional information in sections 8 and 13.

## **SECTION 7: Handling and storage:**

### **7.1 Precautions for safe handling**

Avoid contact with eyes and skin.

Keep packaging closed to avoid dispersion.

### **7.2 Conditions for safe storage, including any incompatibilities:**

Store the product indoors.

### **7.3 Specific end use:**

Mixture of calcium sulphate and silica sand for foundry, see section 1.2.

## **SECTION 8: Exposure controls/personal protection**

### **8.1 Control parameters:**

When assessing risks to worker health and safety, consider the occupational exposure limits set by the ACGIH for inert dust not otherwise classified (PNOC respirable fraction: 5 mg/mc; PNOC inhalable fraction: 10 mg/mc). If these limits are exceeded, the use of a P-type filter is recommended, the class (1, 2 or 3) of which should be chosen according to the outcome of the risk assessment.

### **8.2 Exposure controls:**

#### **General protective measures**

Do not eat or drink while using the product.

Avoid contact with eyes and skin, avoid dust dispersion.

#### **Respiratory protection**

Use FFP1-type facial filtering masks that comply with EN 149.

#### **Skin protection**

In case of skin hypersensitivity, use protective gloves conforming to EN 374, made of natural rubber, nitrile rubber, Neoprene, PVC, use long-sleeved work clothes, safety shoes or boots.

#### **Eye protection**

In case of inadvertent spread, use protective goggles with side shields complying with EN 166.

## **SECTION 9: Physical and chemical properties**

### **9.1 Information on basic physical and chemical properties:**

Physical state:	powder
Colour:	white
Odour:	odourless
Odour threshold:	Not determined
pH:	7 in aqueous solution at 20°C
Melting point/freezing point:	For calcium sulphate: >1450°C
Boiling point or initial boiling point:	Not applicable, solid-state mixture
Boiling range:	Not applicable, solid-state mixture under ordinary conditions
Flammability:	Not applicable, non-combustible mixture
Flash point:	Not applicable, non-combustible mixture
Lower explosion limit:	Not applicable, solid-state mixture

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Upper explosion limit :	Not applicable, solid-state mixture
Vapour pressure :	Not applicable, solid-state mixture under ordinary conditions
Relative vapour density :	Not applicable, solid-state mixture under ordinary conditions
Relative density:	1,6 kg/l
Solubility:	about 2 g/l (calcium sulphate only)
Partition coefficient n-octanol/water:	Not applicable, mixture of inorganic substances
Auto-ignition temperature:	Not applicable, solid-state mixture
Decomposition temperature:	At around 1000°C, calcium sulphate decomposes into CaO + SO <sub>3</sub>
Kinematic viscosity:	Not available, solid-state mixture under ordinary conditions
Particle characteristics:	Typical average particle size: 0 - 250µ

## 9.2 Other information

No further information available.

## **SECTION 10: Stability and reactivity**

### 10.1 Reactivity:

The product hardens quickly on contact with water.  
No specific material to be avoided.

### 10.2 Chemical Stability:

Stable under normal use and storage conditions (see section 7).

### 10.3 Potential Hazardous Reactions:

No conditions known to cause dangerous reactions.

### 10.4 Conditions to Avoid:

Stable if stored indoors and dry.

### 10.5 Chemically Interacting Materials:

Information not available.

### 10.6 Hazardous Decomposition Products:

None under normal use and storage conditions.

Decomposition occurs at temperatures above 1000°C, releasing sulphuric anhydride (SO<sub>3</sub>) and calcium oxide (CaO).

## **SECTION 11: Toxicological information**

### 11.1 Information on toxicological effects:

No toxicological studies have been conducted on the product as such.

#### **Acute toxicity**

LD50 of calcium sulphate

#### **Acute oral toxicity:**

LD50 rat > 1581 mg/kg - according OECD 420

#### **Acute inhalative toxicity:**

LD50 rat > 2,61 mg/L - according OECD 403

#### **Skin irritation:**

Not irritating for rabbit - according OECD 404

#### **Serious eye damage / serious eye irritation**

Not applicable. (Not irritating to rabbits - as per OECD Guideline 405).

#### **Respiratory or skin sensitisation**

Not applicable. (Does not cause skin sensitization in guinea pigs - according to OECD Guideline 406).

#### **Mutagenicity in germ cells**

Not applicable. (Non-mutagenic. In vitro / mouse test - according to OECD Guidelines 471-474 / 476)

#### **Carcinogenicity**

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Not applicable.

#### **Reproductive toxicity**

Not applicable. (There is no risk of reproductive toxicity. Rat test - according to OECD Guideline 422).

#### **STOT (acute target organ toxicity) single exposure**

Not applicable. (There is no evidence of organ toxicity for acute toxicity tests).

#### **STOT (acute target organ toxicity) repeated exposure**

Not applicable. (Currently unknown).

#### **Danger by inhalation**

Not applicable. (There are no aspiration hazards).

#### **Other toxicological data**

No further information available.

#### 11.2 Information on other hazards

#### **Hormone-disrupting properties**

Product:

#### **Rating:**

The substance/mixture does not contain any components believed to have endocrine disrupting properties, according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 on level 0.1% or higher.

#### **Further information:**

Product:

#### **Comments:**

No data available

## **SECTION 12: Ecological information**

### 12.1 Toxicity:

#### **Toxicity:**

None under normal conditions of use.

The product poses no problems to the environment.

#### **Aquatic toxicity**

No further information available.

### 12.2 Persistence and Degradability:

The product is an inorganic material, after hydration it presents no risk of toxicity.

### 12.3 Bioaccumulation:

The product is an inorganic material, after hydration it presents no risk of toxicity.

### 12.4 Mobility in Soil:

The product is an inorganic material, after hydration it presents no risk of toxicity.

### 12.5 Results of PBT and vPvB assessment

The product is an inorganic material, after hydration it presents no risk of toxicity.

### 12.6 Hormone-disrupting properties

The substance/mixture does not contain any components believed to have endocrine disrupting properties, according to REACH Article 57(f) or Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 on level 0.1% or higher.

### 12.7 Other Harmful Effects:

No further information available.

## **SECTION 13: Instructions for disposal**

### 13.1 Waste treatment methods:

Do not dispose of into drains or surface water courses.

Disposal as waste must be in accordance with national regulations.

Dispose of any residues with European Waste Code 17 08 02.

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## **SECTION 14: Information relating to carriage**

### **14.1 UN number**

The transport of this substance is not subject to regulations.

### **14.2 Proper load name according to UN Model Regulations**

The transport of this substance is not subject to regulations.

### **14.3 Transport hazard class(es)**

The transport of this substance is not subject to regulations.

### **14.4 Packing group**

The transport of this substance is not subject to regulations.

### **14.5 Environmental hazards**

The transport of this substance is not subject to regulations.

### **14.6 Special precautions for the user**

The transport of this substance is not subject to regulations.

### **14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Notes:

Not applicable for product as delivered.

## **SECTION 15: Legally required information**

### **15.1 Safety, health and environmental regulations and legislation specific for the substance or mixture:**

This Safety Data Sheet complies with Regulation 1907/2006/EC - (REACH) as amended.

#### **Seveso Category - Directive 2012/18/EC:**

None

#### **Restrictions related to the product or contained substances according to Annex XVII Reg. (EC) 1907/2006:**

None

#### **Substances in Candidate List (Art. 59 REACH):**

The product does not contain SVHC substances in a percentage higher than 0.1%.

#### **Substances subject to authorisation (Annex XIV REACH):**

None

#### **Substances subject to export notification requirements Reg. (EC) 649/2012:**

None

#### **Substances subject to the Rotterdam Convention:**

None

#### **Substances subject to the Stockholm Convention:**

None

### **15.2 Chemical Safety Assessment:**

A chemical safety assessment of the product has not been carried out.

## **SECTION 16: Other information**

The data and information contained in this sheet are the result of the knowledge available at the date of publication. The company assumes no liability for damage to persons or property that may result from using the substance other than for its intended purpose. The sheet does not replace, but supplements, the texts or regulations governing the user's activity. The user has full responsibility for the precautions that are necessary for the use he will make of the product. It is understood that the user must define safety measures according to the legislation applicable to his activities.

### **Relevant phrases (code and full text as indicated in Chapters 2 and 3)**

Not relevant.

### **Indication of Changes**

This revision contains the changes introduced by Regulation (EU) 2020/878.

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## Abbreviations:

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR Agreement); AICS - Australian Inventory of Chemicals; ASTM - American Association for the Testing of Materials; bw - Body weight; CLP - Classification, Labeling and Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogenic, mutagenic or toxic to reproduction; DIN - Standard of the German Institute for Standardization; DSL - Indoor Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - EINECS number; ECx - Concentration associated with x% response; ELx - Load capacity associated with x% response; EmS - Emergency schedule; ENCS - Existing and New Chemicals (Japan); ErCx - Concentration associated with x% growth response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Cancer Research; IATA - International Air Transport Association; IBC - International IMO Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk; IC50 - Half-maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemicals in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Act (Japan); ISO - International Organization for Standardization; KECI - Korean Inventory of Existing Chemicals; LC50 - Lethal concentration for 50% of a test population; LD50 - Lethal dose for 50% of a test population (median lethal dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not otherwise specified; NO(A)EC - No observable (negative) effect on concentration; NO(A)EL - No observable (negative) effect on Level; NOELR - No discernible effect on load capacity; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Cooperation and Development OECD; OPPTS - Bureau of Chemical Safety and Pollution Prevention; PBT - Persistent, bioaccumulative and toxic substance; PICCS - Philippine Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure-Activity Relationships; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH); RID - Regulations Concerning the International Carriage of Dangerous Goods by Rail (RID); SADT - Self-accelerating decomposition temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Inventory List; TRGS - Technical Regulation on Hazardous Substances; TSCA - Toxic Substance Control Act (US); UN - United Nations; vPvB - Very difficult to degrade and very bioaccumulative