

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 PRODUCT IDENTIFICATION

Supershield Crystalgrout

1.2 RECOMMENDED USE

Waterproofing and protection of concrete

1.3 COMPANY DETAILS

Supershield Private Limited

No 37, 3rd main road, R.A. Puram, Chennai - 600028, India.

Email: contact@supershieldglobal.com

Website: www.supershieldglobal.com

1.4 EMERGENCY TELEPHONE

1-800-425-5505 - In times of unavailability, contact your local emergency services.

2. HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

2.1.1 Classification in accordance with GHS

Skin Irritation. 2: H315 Causes skin irritation.

Eye Damage. 1: H318 Causes serious eye damage.

Skin Sensitization. 1: H317 May cause an allergic skin reaction.

STOT SE 3: H335 May cause respiratory irritation.

STOT RE 2: H373 May cause damage to respiratory organs through prolonged or repeated exposure.

2.2 LABEL ELEMENTS



Signal Word : Danger

2.3 HAZARD STATEMENTS

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H318 - Causes serious eye damage

H335 - May cause respiratory irritation

H373 - May cause damage to respiratory organs through prolonged or repeated exposure



2.4 PRECAUTIONARY STATEMENTS

P260 - Do not breathe dust

P264 - Wash thoroughly after handling

P280 - Wear protective gloves /clothing / eye protection/ face protection & approved duct masks

2.5 RESPONSIVE PRECAUTIONARY STATEMENTS

P260 Do not breathe dust

P264 Wash thoroughly after handling

P280 Wear protective gloves / protective clothing / eye protection / face protection

P304 + P340 IF INHALED- Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + P351 + P338 IF IN EYES- Rinse cautiously with water for several minutes

Remove contact lenses, if present and easy to do. Continue rinsing

P310 Immediately call a POISON CENTRE or doctor / physician

P102 - Keep out of reach of children

P312 - Call a POISON CENTER or doctor if you feel unwell

3. COMPOSITION /INFORMATION ON INGREDIENTS

Hazardous Ingredients	%	CAS. No.	Classification According to GHS
Portland Cement	35 - 60%	65997-15-1	Skin Irrit. 2: H315 Skin Sens. 1: H317 Eye Dam. 1: H318 STOT SE 3: H335
Alkaline Earth Compounds (calcium hydroxide)	5 - 20%	1305-62-0	Skin Irrit. 2: H315 Eye Dam. 1: H318 STOT SE 3: H335
Silica Sand (< 0.005 % (w/w) 10 µm respirable silica)	30 - 40%	14808-60-7	STOT RE 2: H373

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

When seeking medical advice show this safety data sheet to the doctor in attendance.

EYE CONTACT: Quickly and gently blot away any dry powder. Flush cautiously with large amounts of water for at least 30 minutes. Remove any contact lenses, and Continue rinsing. Do not rub eyes as this may cause additional irritation or damage. Call for professional medical attention if irritation persists.

**SUPERSHIELD CRYSTALMIX**

SKIN CONTACT: Wash off immediately with soap and plenty of water, remove contaminated clothing, shoes and leather goods. If skin irritation or rash occurs, seek medical advice / attention.

INGESTION: Wash out inside of the mouth with clean water. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Seek immediate professional medical assistance and contact a poison center.

INHALATION: Move victim to fresh air and keep at rest in a position comfortable for breathing. Dust in throat and nasal passages should clear spontaneously. Seek immediate professional medical attention.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

ACUTE: Irritation to skin and mucous membranes.

DELAYED: Precautions should be taken to ensure that dust is not inhaled; however, long-term exposure to high levels of dust may result in damage to the lungs.

5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment the product itself does not burn, Use water spray, fog, Carbon dioxide (CO₂), foam or dry chemical.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

No hazardous combustion products. Alkaline earth compounds will cause explosive decomposition of maleic anhydride, nitroalkanes and nitroparaffins, in the presence of water, form salts with inorganic salts and with inorganic bases. The dry salts are explosive.

5.3 ADVICE FOR FIREFIGHTERS

Wear self-contained breathing apparatus and no need for specialist protective equipment for firefighters. Prior to using the product liaise with local fire authority for confirmation of best and most current form of firefighting equipment for the product.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PROTECTIVE PRECAUTIONS

Use full protective equipment as referred to under Section 8.2.2 to prevent any contamination of skin, eyes, respiratory system and personal clothing. Ensure adequate measures are in place to prevent airborne dust.

**SUPERSHIELD CRYSTALMIX****6.2 ENVIRONMENT PROTECTION PRECAUTIONS**

Prevent entry into drains, water courses, sewer or confined areas. Any spillages into watercourses must be alerted to the appropriate regulatory body.

6.3 METHODS FOR CLEANING UP

During cleanup avoid inhalation of product and contact with skin and eyes. Take up mechanically and collect in suitable containers for disposal. Wear full personal protective equipment when cleaning up, whatever method is chosen. When the product is in a dry state, avoid airborne dust generation when cleaning up. Clean up promptly by sweeping, vacuum or mopping to avoid the dust becoming airborne.

If the product has become wet, clean up and place in watertight container. Allow material to dry and solidify before disposal. Check current regulations before disposing of spillage, whether in dry state or not.

7. HANDLING AND STORAGE**7.1 HANDLING**

Avoid all types of dust generation; particularly the creation of respirable dust. At all times avoid inhalation of product and contact with skin and eyes. Use handling equipment and controls if necessary to avoid injury. If in doubt, contact your local health and safety body for further guidance on annual handling. Always wear sufficient and full protective equipment and suitable clothing when handling the product.

Ensure adequate ventilation and have ventilation equipment available if required due to possibility of generation of airborne dust.

Do not eat, drink or smoke when handling or applying product. Remove contaminated clothing and protective equipment before entering eating areas.

Avoid mishandling of pails or bags so as to prevent accidental bursting and creation of dust.

7.2 STORAGE

P402 + P232 + 233 Store in a dry place. Protect from moisture. Keep container tightly closed.

The product should be used within 12 months of the date of production; product should not have been exposed to the atmosphere prior to use.

Any product that is stacked should be done so in a stable manner, and to a safe height, so that it does not create any risk of product falling and accidentally bursting the packaging open.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Substance	CAS No	Regulatory Limits	Recommended Limits	
		OSHA PEL	NIOSH REL (as of 4/26/13)	ACGIH 2015 TLV
Calcium hydroxide	1305-62-0			
Total dust		15 mg/m ³	5 mg/m ³	5 mg/m ³
Respirable fraction		5 mg/m ³		
Portland cement	65997-15-1			
Total dust		15 mg/m ³	10 mg/m ³	
Respirable fraction		5 mg/m ³	5 mg/m ³	1 mg/m (no asbestos and < 1% crystalline silica)
Silica Sand	14808-60-7			0.025 (resp.) for α-quartz and cristobalite mg/m ³
Quartz (Respirable)		250(h) (%SiO ₂ +5)	0.1 mg/m ³	Ca 0.05 mg/m ³
Quartz (Total Dust)		30 mg/m (%SiO ₂ +2)		

Please refer to OSHA website for additional information. Please note that the % of respirable crystalline silica in the silica sand is < 0.005 % but some processes and uses may increase this fraction.

8.2 EXPOSURE CONTROLS**8.2.1 Appropriate Engineering Measures**

Ensure adequate and suitable ventilation / ventilation equipment when handling product, especially in confined areas. All ventilation systems should be filtered before discharge to atmosphere. Isolate personnel from dusty areas.

Do not eat, drink or smoke when working with the product to avoid contact with skin or mouth. Remove contaminated clothing, footwear, etc. and clean thoroughly before re-using.

**SUPERSHIELD CRYSTALMIX****10. STABILITY AND REACTIVITY****10.1 REACTIVITY**

Alkaline earth compounds react vigorously with strong acids. They also attack aluminum, lead and brass in the presence of moisture.

10.2 CHEMICAL STABILITY

The product is chemically stable. When mixed with water it will harden, with time, into a stable mass.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

Alkaline earth compounds will cause explosive decomposition of maleic anhydride, nitroalkanes and nitroparaffins, in the presence of water, form salts with inorganic salts and with inorganic bases. The dry salts are explosive. Alkaline earth compound is stable up to 580°C. Alkaline earth compounds decompose with loss of water at approximately 580°C to form Calcium Oxide.

10.4 CONDITIONS TO AVOID

Avoid humid and drafty environments during storage. Also avoid storage temperatures below 7°C.

10.5 INCOMPATIBLE MATERIALS

Products are incompatible with strong acids.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

None known.

11. TOXICOLOGICAL INFORMATION**11.1 INFORMATION ON TOXICOLOGICAL EFFECTS**

Acute Oral Toxicity: May cause irritation to the gastrointestinal tract.

Acute Inhalation Toxicity: The product may irritate the throat and respiratory tract. Inhalation may lead to irritation, inflammation or burns. Coughing, sneezing and shortness of breath may occur following exposures in excess of occupational exposure limits.

Skin Corrosion / Irritation: When skin is exposed to the product in its dry or wet state, thickening, cracking or fissuring of the skin may occur. Prolonged contact in combination with abrasion can cause severe burns. Portland cement and alkaline earth compound are an irritant to skin. This mixture contains < 2 ppm Chromium (VI), which is a skin irritant.

Serious Eye Damage / Irritation: Direct contact with product may cause corneal damage by mechanical stress, immediate or delayed irritation or inflammation. Direct contact either in dry or wet form may cause effects ranging from moderate eye irritation (eg. conjunctivitis or blepharitis) to chemical burns or blindness.

Skin Sensitization: This product contains Portland cement which is classified as a skin sensitizer.



8.2.2 Personal Protection Equipment

P264 - Wash hands thoroughly after handling

P272 - Contaminated work clothing should not be allowed out of the workplace

P280 - Wear protective gloves / protective clothing / eye protection / face protection

Skin Protection – Use impervious, abrasion resistant gloves, enclosed rubber boots that resist powder and liquid penetration, closed long-sleeved impervious protective clothing that protects skin from contact.

Eye Protection – Wear tightly fitting safety goggles at all times when handling and processing the product. Ensure the goggles / glasses have suitable side protection, are wide vision, and that there is no risk of product particles being able to enter the eye(s).

Respiratory Protection – Inhalation of product dust must be avoided at all times. Use an effective dust mask. Respiratory protective equipment must be in compliance with relevant national legislation.

8.2.3 Environmental Exposure Controls

Prevent product from entry drains and limit dust dispersion into the environment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Color & Appearance	Grey powder
Odour	None
pH	10 - 13
Melting / Freezing Point	Not applicable
Initial Boiling Point and Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability Upper / Lower	Not applicable
Vapour Pressure	Not applicable
Vapour Density	Not applicable
Solubility	Powder forms slurry with water, hardens over time
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Alkaline earth compounds: 580°C
Viscosity	Not applicable
Explosive Properties	Not applicable
Oxidizing Properties	Not applicable
Specific Gravity	2.8 - 3.0

**SUPERSHIELD CRYSTALMIX**

Germ Cell Mutagenicity: With the exception of Chromium (VI) (< 2 ppm) in the Portland cement, none of the individual substances in this mixture are classified as mutagenic.

Carcinogenicity: This product contains silica sand and this form of silica is not classified as carcinogenic due to its large particle size. However, prolonged and / or massive exposure to respirable silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of silica.

Reproductive Toxicity: None of the individual substances in this mixture are classified as reproductive toxicants.

Specific Target Organ Toxicity – Single Exposure: Inhalation of dust can result in damage to the respiratory tract.

Specific Target Organ Toxicity – Repeat Exposure: Prolonged or repeated inhalation exposure may cause damage to the lungs, including chronic obstructive pulmonary disease (COPD).

11.2 ASPIRATION HAZARD

No data available.

11.3 LIKELY ROUTES OF EXPOSURE

Inhalation: YES

Skin – Eyes: YES

Ingestion: NO – except in accidental cases

11.4 POTENTIAL HEALTH EFFECTS

The product may irritate and burn the throat and respiratory tract. Coughing, sneezing and shortness of breath may occur following exposures in excess of occupational exposure limits. Causes skin irritation and is a severe eye irritant.

Chronic exposure to respirable dust in excess of occupational exposure limits may cause coughing, shortness of breath and may cause chronic obstructive lung disease (COPD).

12. ECOLOGICAL INFORMATION**12.1 ECOTOXICITY**

Do not allow the material to enter water course. If water is contaminated inform the relevant authorities immediately. The addition of a significant amount of cementitious products to water may cause a rise in the pH value and therefore may be toxic to aquatic life under certain circumstances.

12.2 PERSISTENCE AND DEGRADABILITY

No information available.

12.3 BIO ACCUMULATIVE POTENTIAL

No information available.



12.4 MOBILITY IN SOIL

No information available.

12.5 RESULTS OF PBT AND VPVB ASSESSMENT

This mixture does not contain any substances that are assessed to be PBT or vPvB.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS

Avoid creation of airborne and respirable dust when disposing of product.

Product – Unused Residue or Dry Spillage: Pick up dry and put in containers. Mark container clearly. In case of disposal, harden with water to avoid dust creation. Dispose of at a licensed waste facility accepting cementitious and alkaline earth based waste. Dispose of all materials in accordance with current local regulations / legislation.

Product – Slurries: Allow to harden. Avoid entry into sewage and drainage systems or into bodies of water and dispose of as indicated for hardened product.

Product – After Addition of Water, Hardened: Dispose of at a licensed waste facility accepting cementitious and alkaline earth based waste. Dispose of all materials in accordance with current regulations / legislation. Avoid entry into sewage and drainage systems or into bodies of water.

13.2 PACKAGING

Completely empty packaging and process it according to current regulations / legislation.

14. TRANSPORT INFORMATION

The product is not classified as hazardous for transport purposes.

15. REGULATORY INFORMATION

GHS

WHMIS

OSHA

16. OTHER INFORMATION

Hazard Statements In Full

H315 Causes skin irritation.

H318 Causes serious eye damage.

H317 May cause an allergic skin reaction.

H335 May cause respiratory irritation.

H373 May cause damage to respiratory organs through prolonged or repeated exposure.



Precautionary Statements In Full

P260 Do not breathe dust.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves / protective clothing / eye protection / face protection.

P272 Contaminated work clothing should not be allowed out of the workplace.

P264 Wash thoroughly after handling

Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTRE or doctor / physician.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P332+P313 If skin irritation or rash occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

P501 Dispose of contents / container to ...

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P405 Store locked up.

P314 Get medical advice / attention if you feel unwell.

P310 Immediately call a POISON CENTRE or doctor / physician

P102 - Keep out of reach of children

P312 - Call a POISON CENTER or doctor if you feel unwell

Disclaimer

The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty, quality specification or construed as legal advice or as insuring compliance with any federal, state, provincial or local laws or regulations. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.