

Section 1 Identification of Chemical Product and Company

Code	Description	Size	Colour
01860	Gorilla Powercrete Repair Mortar	10 Kg	Grey

Recommended use:	Mortar
UN number, shipping name and packaging group:	Not regulated
Supplier contact details:	Soudal Ltd
	14 Avalon Drive
	Nawton
	Hamilton 3200
	New Zealand
	Freephone: 0800 70 10 80
	Phone: (07) 847 5540
	Email: info@soudal.co.nz
	Website: www.soudal.co.nz
POISON CENTRE NUMBER: 0800 764 766 (24 hours)	

Section 2 Hazards Identification

Statement of Hazardous Nature

This product is classified as:

HAZARDOUS SUBSTANCE according to the criteria of HSNO.

NOT REGULATED under NZS5433:2007 Transport of Dangerous Goods on Land

Hazardous Substances and New Organisms (HSNO) classification:

Classification	GHS Hazard statements
Skin Effects Category 2 6.3A	H315 Causes skin irritation
Eye Effects Category 1 8.3A	H318 Causes serious eye damage
Skin Sensitisation Category 1 6.5B	H317 May cause an allergic skin reaction
Respiratory Effects Category 3 6.9	H335 May cause respiratory irritation

HSNO Signal



Word:

DANGER

Precautionary Statements:

- P102 keep out of reach of children
- P103 Read label before use
- P271 Use only outdoors or in a well-ventilated area
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection
- P261 Avoid breathing dusts/ fumes
- P272 Contaminated work clothing should not be allowed out of the workplace
- P405 Store locked up
- P403+P233 Store in a well ventilated place. Keep container tightly closed

Section 3. Composition/Information on Ingredients

Ingredient	CAS No.	Individual HSNO classification	Concentration (% by Wt.)
Cement, alumina, chemicals	65997-16-2	Skin Effects Category 2; Eye Effects Category 1; Respiratory Effects Category 3	
Cement, Portland, chemicals	65997-15-1	Acute Oral Toxicity Category 5; Acute Inhalation Toxicity Category 5; Skin Effects Category 2; Eye Effects Category 1; Skin Sensitisation Category 1; Mutagenicity Category 2; Respiratory Effects Category 3	
Metakoilin	15123-81-6	Acute Inhalation Toxicity Category 5; Eye Effects Category 2	
Calcium sulphate, hemihydrate	10034-76-1	Skin Effects Category 2; Eye Effects Category 2; Respiratory Effects Category 3	
Ingredients not contributing to classification	Various	Non hazardous	balance

Section 4 First Aid Measures

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

Eye contact:

Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin contact:

Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation.

Inhalation:

remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor, without delay.

Ingestion:

Immediately give a glass of water. First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

General advice and advice for physicians:

Treat symptomatically

Section 5 Fire-Fighting Measures

Extinguishing media:

Dry chemical, foam, water spray/ fog or carbon dioxide.

Special hazards due to combustion:

Non combustible. Not considered a significant fire risk, however containers may burn. When aluminium oxide dust is dispersed in air, firefighters should wear protection against inhalation of dust particles, which can also contain hazardous substances from the fire absorbed on the alumina particles.

Advice for fire-fighters:

Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves. Prevent, by any means available, spillage from entering drains or water courses. Use water delivered as a fine spray to control fire and cool adjacent area. DO NOT approach containers suspected to be hot. Cool fire exposed containers with water spray from a protected location. If safe to do so, remove containers from path of fire. Equipment should be thoroughly decontaminated after use.

Section 6 Accidental Release Measures

Minor Spills

Clean up all spills immediately. Avoid breathing dust and contact with skin and eyes. Wear protective clothing, gloves, safety glasses and dust respirator. Use dry clean up procedures and avoid generating dust. Sweep up, shovel up or Vacuum up (consider explosion-proof machines designed to be grounded during storage and use). Place spilled material in clean, dry, sealable, labelled container.

Major Spills

Moderate hazard. **CAUTION:** Advise personnel in area. Alert Emergency Services and tell them location and nature of hazard. Control personal contact by wearing protective clothing. Prevent, by any means available, spillage from entering drains or water courses. Recover product wherever possible. IF DRY: Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. IF WET: Vacuum/shovel up and place in labelled containers for disposal. ALWAYS: Wash area down with large amounts of water and prevent runoff into drains. If contamination of drains or waterways occurs, advise Emergency Services.

Section 7 Handling and Storage

Handling:

Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Prevent concentration in hollows and sumps. **DO NOT enter confined spaces until atmosphere has been checked. DO NOT allow material to contact humans, exposed food or food utensils.** Avoid contact with incompatible materials. **When handling, DO NOT eat, drink or smoke.** Keep containers securely sealed when not in use. Avoid physical damage to containers. Always wash hands with soap and water after handling. Work clothes should be laundered separately. Launder contaminated clothing before re-use. Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS. Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

Storage:

Store in original containers. Keep containers securely sealed. Store in a cool, dry area protected from environmental extremes. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storage and handling recommendations contained within this SDS.

Section 8 Exposure Controls/Personal Protection

Exposure Limits



CAS no.	Substance or ingredient	WES-TWA	WES-STEL
65997-15-1	Portland cement	10 mg/m ³	
10034-76-1	Calcium sulphate hemihydrate	10 mg/m ³	

The TWA exposure value is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. The STEL (Short Term Exposure Limit) is an exposure value that may be equalled (but should not be exceeded) for no longer than 15 minutes and should not be repeated more than 4 times per day. There should be at least 60 minutes between successive exposures at the STEL. The term "peak" is used when the TWA limit, because of the rapid action of the substance, should never be exceeded, even briefly.

Engineering Controls:

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use. Employers may need to use multiple types of controls to prevent employee overexposure. Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction. If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of: (a): particle dust respirators, if necessary, combined with an absorption cartridge; (b): filter respirators with absorption cartridge or canister of the right type; (c): fresh-air hoods or masks. Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

Exposure controls:

Control	Protective measure
Eye	Safety glasses with side shields. Chemical goggles/ face shield. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH. Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent] 
Respiratory	Respirators may be necessary when engineering and administrative controls do not adequately prevent exposures. The decision to use respiratory protection should be based on professional judgment that takes into account toxicity information, exposure measurement data, and frequency and likelihood of the worker's exposure - ensure users are not subject to high thermal loads which may result in heat stress or distress due to personal protective equipment (powered, positive flow, full face apparatus may be an option). Published occupational exposure limits, where they exist, will assist in determining the adequacy of the selected respiratory protection. These may be government mandated or vendor recommended. Certified respirators will be useful for protecting workers from inhalation of particulates when properly selected and fit tested as part of a complete respiratory protection program. Use approved positive flow mask if significant quantities of dust becomes airborne. Try to avoid creating dust conditions.
Skin	The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact. Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. No special equipment needed when handling small quantities. OTHERWISE: For potentially moderate exposures: Wear general protective gloves, eg. light weight rubber gloves. For potentially heavy exposures: Wear chemical protective gloves, eg. PVC. and safety footwear. 

Section 9 Physical and Chemical Properties

General substance properties:

Property	Details
Appearance	White powder
Odour	Characteristic
pH	No data.
Vapour pressure	No data.
Viscosity	No data
Boiling Point	No data
Volatile materials	No data
Freezing/melting point	No data.
Solubility	Miscible
Specific gravity/density	No data
Flash point	No data
Danger of explosion	No data.
Auto-ignition temperature	No data
Upper and lower flammability limits	No data
Corrosiveness	No data.

Section 10 Stability and Reactivity

Stability:

Stable under normal conditions.

Conditions to avoid:

Exposure to excessive heat, open flames and sparks. Avoid conditions that favour the formation of excessive mists and/or fumes.

Incompatible materials to avoid:

Avoid oxidising agents, strong acids and strong bases.

Hazardous decomposition products:

Combustion will result in the release of carbon monoxide(CO), carbon dioxide (CO₂) and other pyrolysis products typical of burning organic material.

Section 11 Toxicological Information

Test	Data and symptoms of exposure
Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Persons with impaired respiratory function, airway diseases and conditions such as emphysema or chronic bronchitis, may incur further disability if excessive concentrations of particulate are inhaled. If prior damage to the circulatory or nervous systems has occurred or if kidney damage has been sustained, proper screenings should be conducted on individuals who may be exposed to further risk if handling and use of the material result in excessive exposures.
Oral	The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
Dermal	This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition. Skin contact is not thought to have harmful health effects (as classified under EC Directives); the material may still produce health damage following entry through wounds, lesions or abrasions. Though considered non-harmful, slight irritation may result from contact because of the abrasive nature of the aluminium oxide particles. Thus it may cause itching and skin reaction and inflammation. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	If applied to the eyes, this material causes severe eye damage.
Chronic	Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Skin contact with the material is more likely to cause a sensitisation reaction in some persons compared to the general population. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. Animal testing shows long term exposure to aluminium oxides may cause lung disease and cancer, depending on the size of the particle. The smaller the size, the greater the tendencies of causing harm. Cement contact dermatitis (CCD) may occur when contact shows an allergic response, which may progress to sensitisation. Sensitisation is due to soluble chromates (chromate compounds) present in trace amounts in some cements and cement products. Soluble chromates readily penetrate intact skin. Cement dermatitis can be characterised by fissures, eczematous rash, dystrophic nails, and dry skin; acute contact with highly alkaline mixtures may cause localised necrosis. Cement eczema may be due to chromium in feed stocks or contamination from materials of construction used in processing the cement. Sensitisation to chromium may be the leading cause of nickel and cobalt sensitivity and the high alkalinity of cement is an important factor in cement dermatoses [ILO]. Repeated, prolonged severe inhalation exposure may cause pulmonary oedema and rarely, pulmonary fibrosis. Workers may also suffer from dust-induced bronchitis with chronic bronchitis reported in 17% of a group occupationally exposed to high dust levels. Respiratory symptoms and ventilatory function were studied in a group of 591 male Portland cement workers employed in four Taiwanese cement plants, with at least 5 years of exposure (1). This group had a significantly lowered mean forced vital capacity (FCV), forced expiratory volume at 1 s (FEV1) and forced expiratory flows after exhalation of 50% and 75% of the vital capacity (FEF50, FEF75). The data suggests that occupational exposure to Portland cement dust may lead to a higher incidence of chronic respiratory symptoms and a reduction of ventilatory capacity. Chun-Yuh et al; Journal of Toxicology and Environmental Health 49: 581-588, 1996 Chronic dust inhalation of kaolin, can cause kaolinosis from kaolin deposition in the lungs causing distinct lung markings, abnormal inflation of air sacs, and chronic lung diseases (nodular pneumoconiosis). This condition is made worse by long duration of occupational exposure and pre-existing chest infection. Pre-employment screening is recommended. Long term exposure to high dust concentrations may cause changes in lung function i.e. pneumoconiosis, caused by particles less than 0.5 micron penetrating and remaining in the lung. Overexposure to respirable dust may cause coughing, wheezing, difficulty in breathing and impaired lung function. Chronic symptoms may include decreased vital lung capacity, chest infections. Repeated exposures, in an occupational setting, to high levels of fine- divided dusts may produce a condition known as pneumoconiosis which is the lodgement of any inhaled dusts in the lung irrespective of the effect. This is particularly true when a significant number of particles less than 0.5 microns (1/50,000 inch), are present. Lung shadows are seen in the X-ray. Symptoms of pneumoconiosis may include a progressive dry cough, shortness of breath on exertion (exertional dyspnea), increased chest expansion, weakness and weight loss. As the disease progresses the cough produces a stringy mucous, vital capacity decreases further and shortness of breath becomes more severe. Other signs or symptoms include altered breath sounds, diminished lung capacity, diminished oxygen uptake during exercise, emphysema and

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pneumothorax (air in lung cavity) as a rare complication. Removing workers from possibility of further exposure to dust generally leads to halting the progress of the lung abnormalities. Where worker-exposure potential is high, periodic examinations with emphasis on lung dysfunctions should be undertaken. Dust inhalation over an extended number of years may produce pneumoconiosis. Pneumoconiosis is the accumulation of dusts in the lungs and the tissue reaction in its presence. It is further classified as being of noncollagenous or collagenous types. Noncollagenous pneumoconiosis, the benign form, is identified by minimal stromal reaction, consists mainly of reticulin fibres, an intact alveolar architecture and is potentially reversible.

Section 12 Ecological Information

Summary of Ecotoxicity

No data

Section 13 Disposal Considerations

Disposal methods:

Containers may still present a chemical hazard/ danger when empty. Return to supplier for reuse/ recycling if possible. Otherwise: If container can not be cleaned sufficiently well to ensure that residuals do not remain or if the container cannot be used to store the same product, then puncture containers, to prevent re-use, and bury at an authorised landfill. Where possible retain label warnings and SDS and observe all notices pertaining to the product.

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

Reduction

Reuse

Recycling

Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate. In most instances the supplier of the material should be consulted. **DO NOT allow wash water from cleaning or process equipment to enter drains.** It may be necessary to collect all wash water for treatment before disposal. In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority. Recycle wherever possible or consult manufacturer for recycling options. Consult State Land Waste Management Authority for disposal. Bury residue in an authorised landfill. Recycle containers if possible, or dispose of in an authorised landfill.

Section 14 Transport Information

NOT REGULATED

Section 15 Regulatory Information

HSNO approval number and Group Standard:

HSR002544

Construction Products (Subsidiary Hazard)

Group Standard conditions and other regulations:

Condition	Requirement
SDS	Safety data sheet must be available to a person handling the substance within 10 minutes.
Labelling	Never remove or deface label.
Emergency plan	Required when present in quantities >100 Kg
Approved handler	Not required
Tracking	Not required.
Bunding and secondary containment	Not required
Signage	Required when quantities exceed 1000L
Test certificate	Not required

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Hazardous Atmosphere Zone	Not required
Fire extinguisher	Not required

Calcium Aluminate Cement (CAS 65997-16-2) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)

Portland Cement (CAS 65997-15-1) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Workplace Exposure Standards (WES)

Calcium sulphate hemihydrate (CAS 10034-76-1) is found on the following regulatory lists

- New Zealand Inventory of Chemicals (NZIoC)
- New Zealand Workplace Exposure Standards (WES)

National Inventories

Australia	AICS	N
Canada	DSL	N
Canada	NDSL	N
China	IECSC	N
Europe	EINEC/ELINCS/NLP	N
Japan	ENCS	N
Korea	KECI	N
New Zealand	NZIoC	N
Philippines	PICCS	N
USA	TSCA	N

Y = All ingredients are on the inventory

Section 16 Other Information

Revision History:

February 2017

Initial preparation

Abbreviations:

Abbreviation	Description
CAS number	Number assigned to chemical in the Chemical Abstracts Service registry
HAZCHEM code	Code used by fire-fighters to determine correct method of action in the case of fire
HSNO	Hazardous Substances and New Organisms (Act)
ICAO Technical Instructions	International Civil Aviation Organization Technical Instructions
IMDG code	International Maritime Dangerous Goods code controlled by the International Maritime Organization (IMO)
LC ₅₀	Lethal concentration 50% - concentration fatal to 50% of the tested population
LD ₅₀	Lethal dose 50% - dose fatal to 50% of the tested population
NZS 5433	New Zealand Standard 5433 (Standard for the Transport of Dangerous Goods on Land)
SDS	Safety data sheet
STEL	Short term exposure limit
TWA	Time weighted average (typically measured as 8 hours)
UN number	United nations number
WES	Workplace exposure standard

References

Chemical properties and HSNO classifications derived from the New Zealand chemical classification information database (CCID). www.epa.govt.nz.
Workplace exposure limits derived from Workplace Exposure Standards and Biological Exposure Indices 7th Edition. www.mbie.govt.nz.

The information provided on this SDS 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material in combination with any other material or in any process, unless specified in the text.

This SDS was prepared by Collievale Enterprises in accord with the EPA "Code of Practice for the Preparation of Safety Data Sheets" [HSNOCOP 8-1 (2006)]
<http://www.collievale.com> Phone +64 7 5432428

End of SDS