

**SAFETY DATA SHEET – Golden Self Binding Gravel
(Magnesium Limestone)**

1. Identification of the Substance / Mixture & Company / Undertaking

1.1 Product identifiers

Product Name: Magnesium Limestone aggregate

Synonyms: Golden self-binding gravel 6 & 10mm - dust, dolomitic limestone, calcium magnesium carbonate

Natural aggregates are exempted from registration according to the provision of Annex V of REACH as they occur in nature and are not chemically modified.

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

Identified uses: Rock fragments in their natural state or which have been subjected to mechanical processing. Used by professionals as well as consumers in building and construction work as well as for decorative purposes, mainly outdoors & landscaping.

Details of the supplier of the safety data sheet:

Marchington Stone Limited

105 Buxton Road

High Lane

Stockport

SK6 8DX

☎ 01663 765000

✉ sales@marchington.net

Hours of operation:

07:30 – 18:00 Weekdays

08:00- 10:00 Saturday

1.3 Emergency phone number

UK National Poisons Information Service 0344 892 0111 (Healthcare professionals only – 24 hours a day)

2. Hazards Identification

2.1 Classification of the substance or mixture

Not classified as hazardous according to Regulation (EC) No. 1272/2008.

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Note: The product gives potential for generation of respirable dust during handling and use which may contain respirable crystalline silica.

Prolonged inhalation of respirable dust may cause lung fibrosis.
Principal symptoms of lung fibrosis are cough and breathlessness.

Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled. Repeated inhalation of excessive amounts of respirable crystalline silica may cause silicosis.



2.2 Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

2.3 Other hazards

None.

3. Composition/Information on Ingredients

3.1 Mixtures

Aggregates including granite, basalt, limestone, gritstone, sandstone and others are produced from naturally occurring rock or sand and gravel mineral deposits. The mineral composition and characteristics of the aggregate will depend on the type of mineral deposit from which the aggregate is produced.

Natural aggregates may contain low levels of respirable crystalline silica. In general, natural aggregates such as sandstone, sand and gravel will have the highest levels of crystalline silica.

Some sand aggregates are unsuitable for sandblasting operations as they break down, producing respirable dust containing crystalline silica.

Composition		
Substance Name	EC No	CAS No:
Calcium magnesium carbonate	215-279-6	1317-65-3

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4. First Aid Measures

4.1 Description of first aid measures

<u>METHOD OF CONTACT</u>	<u>IMMEDIATE ACTION</u>	<u>FURTHER ACTION</u>
Inhalation: Excessive inhalation of dust or fine particles	Remove to fresh air and allow to rest	If recovery is not rapid, obtain prompt medical attention
Skin contact: In case of gross contamination with dusts or fine particles	Remove contaminated clothing. Wash with soap/cleanser and rinse with plenty of water Prolonged contact may cause irritation	If irritation persists, obtain prompt medical attention
Eye contact: Dusts or fine particles causing mechanical eye irritation	Thoroughly irrigate with clean water or eye wash solution Do not rub eyes as the material is abrasive and may scratch the surface of the eye Take care not to wash debris from one eye to another	If irritation persists, obtain prompt medical attention
Swallowing: Ingestion of significant quantities of aggregate that could cause harm is very unlikely	If material enters the mouth, do not induce vomiting Remove to fresh air, rinse mouth and give plenty of water to drink	If feeling unwell seek medical advice

4.2 Most important symptoms and effects, both acute and delayed

The product when handled in the form supplied is not dangerous for the human health.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

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5. Fire Fighting Measures

5.1 Extinguishing Media

Natural aggregates are non-flammable and are not combustible.
Use extinguisher suitable for any other materials present in the surrounding fire.

5.2 Special Exposure Hazards in Fire

None.

5.3 Advise-for Fire Fighters

Material will not burn and will not be affected by other extinguishing media used to fight fires that may be present in surrounding areas.

Above 825⁰C combustion product carbon dioxide (CO₂) evolution.

6. Accidental Release Measures

6.1 Personal Precautions

Avoid breathing in dust.
Keep dust out of eyes.
See Section 7 for guidance on handling the product.
See section 8 for guidance on exposure controls and personal protective equipment.

6.2 Environmental Precautions

Natural aggregates are inert, but as far as possible dust & fine particles should be prevented from entering into water courses including sewerage systems.
Discharge of dust onto vegetation and surrounding property should be avoided and controlled at source.

6.3 Methods and materials for containment and cleaning

Spray with water to prevent the generation of dust.
Do not dry sweep residues.
Use a vacuum where practical.
Contain to avoid the generation of dust (i.e., cover, enclose or suppress).
Scoop up and place in container to await transfer.
Recycle and reuse material where possible.

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7. Handling and Storage

7.1 Precautions for safe handling

Product should be handled to minimise the creation of airborne dust
 Conveying systems should be fitted with covers to reduce wind whipping.
 Very fine, dry materials should be conveyed in an enclosed system.
 Water sprays and/or local exhaust ventilation and filtration should be used as required
 Manual handling of the product should be avoided where possible. If manual handling is necessary, full account should be taken of Manual Handling Regulations.

Magnesium limestone bags used in open ended mixers:

Follow manual handling guidance when lifting bags.
 Keep height of product fall low and start mixing smoothly.
 Do not compress empty bags to prevent dust generation.

7.2 Conditions for safe storage

This product should be stored to minimise the creation of airborne dust.
 Very fine dry products (<3mm) in bulk should be stored in enclosed silos unless it is conditioned with water.
 Stockpiles should be sited to avoid wind-whipping where possible.
 Storage bays should be fitted with 3 sides and the aggregates stored below the level of the sides to avoid wind-whipping.
 Do not store near acids.
 Bagged product should be stacked in a stable manner.

7.3 Specific end use(s)

No data available.

8. Exposure Controls / Personal Protection

8.1 Control parameters

Components with occupational exposure limits

Component	CAS No.	Exposure limit	Reference period	Basis
Nuisance Dust	Respirable Fraction	4 mg/m ³	8 hrs T.W.A	UK. EH40 W.E.L.
	Total Fraction	10 mg/m ³	8 hrs T.W.A	UK. EH40 W.E.L.
W.E.L = Workplace Exposure Limit T.W.A = Time Weighted Average				

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8.2 Exposure controls

Appropriate engineering controls



Use in well-ventilated areas.

Use mechanical ventilation in poorly ventilated areas.

Dusts should be controlled by containment, suppression and extraction/filtration where possible.

Regular monitoring of where people may be exposed to respirable dust should be undertaken and further measures implemented to reduce exposure

Personal Protective Equipment (PPE)

AREA OF CONTACT	PPE STANDARD FOR PROTECTION	OTHER RELEVANT INFORMATION
Eyes 	EN166	Goggles / safety glasses to be worn if there is a risk of product entry into eyes
Skin	Impervious heavy-duty gloves to EU Directive 89/686/EEC and standard EN 374	<p>Gloves must be inspected prior to use.</p> <p>Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with good practices</p> <p>Wash hands thoroughly before handling or eating any food and drink.</p> <p>Use of skin barrier cream is recommended</p>
Body	Overalls / impervious clothing	<p>Type of protective equipment must be selected according to the prevalent conditions at the specific workplace</p> <p>Wash hands thoroughly before handling or eating any food and drink.</p> <p>Use of skin barrier cream is recommended</p>
Respiratory 	Respirators - particulate filter type P3 or equivalent	Where a risk assessment in accordance with the hierarchy of controls established within the Chemical Agents Directive shows a requirement
General Hygiene Measures Wash hands thoroughly before handling or eating any food and drink		

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9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

a	Physical form	Powder, granules, chippings
b	Colour	Buff brown
c	Odour	None
d	Odour threshold	Not applicable
e	pH	8.5 – 9.5
f	Melting point	1339°C
g	Initial boiling point and boiling range	Not applicable
h	Flash point	Not applicable
i	Evaporation point	Not applicable
j	Flammability (solid/gas)	Non flammable
k	Upper/lower flammability or explosive limits	Non-explosive
l	Vapour pressure	Negligible at ambient conditions
m	Vapour density	Not applicable
n	Relative Density	2.6 – 2.8 g/cm ³
o	Water Solubility	0.014 g/l (20°C) 0.018 g/l (75°C)
p	Partition coefficient : (n – octanol/water)	No data available
q	Auto-ignition temperature	Not applicable
r	Decomposition temperature	Above 825°C
s	Viscosity	Not applicable
t	Explosive properties	None
u	Oxidizing properties	None

9.2 Other safety information

None.

10. Stability and Reactivity

10.1 Reactivity

With acids and acidic salts reacts to form carbon dioxide gas (CO₂).

10.2 Chemical stability

Stable at normal temperatures and under recommended storage and handling conditions.

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10.3 Possibility of hazardous reactions

With acids and acidic salts reacts to form carbon dioxide gas (CO₂) with effervescence (bubbling). Reaction with concentrated solutions of acids is rapid and exothermic and extensive effervescent foaming can be formed.

10.4 Conditions to avoid

Do not store with or near acids or acidic salts.

10.5 Incompatible materials

Strong mineral acids, acidic salts, alum, ammonium salts, fluorine, magnesium.

10.6 Hazardous decomposition products

Limestone aggregates may react with acid groundwater to release carbon dioxide gas, which may build up in confined spaces to hazardous concentrations.

Otherwise, no hazardous decomposition products when stored and handled correctly.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity	LD50/oral/rat=>5000mg/kg Not harmful if swallowed
Skin contact	Excessive contact may cause mechanical irritation Prolonged contacts may cause irritation, dryness or dermatitis
Eye contact	May cause mild transient irritation and/or scratch eyes
Ingestion	Unlikely to cause long term problems
Germ cell mutagenicity	None
Carcinogenicity	IARC classes respirable crystalline silica as a Group 1 carcinogen The carcinogenic status of respirable silica is further addressed below
Reproductive toxicity	None
Specific target organ toxicity – single exposure to crystalline silica	Single exposure – None
Specific target organ toxicity – repeated exposure to crystalline silica	Prolonged exposure by inhalation may cause cough breathlessness and may lead to lung fibrosis (silicosis)
Aspiration Hazard	None

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Potential health effects – Inhalation, ingestion, skin and eyes

None when intact.

Prolonged handling of aggregates may cause mechanical abrasion of skin.

Inhalation of dusts containing respirable silica may cause serious chronic health effects.

See below for further details.

ADDITIONAL INFORMATION

Prolonged inhalation of respirable crystalline silica

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However, it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated.

(Source: IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol.68, IARC, Lyon, France)

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. “There is sufficient evidence to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore, preventing the onset of silicosis will also reduce the cancer risk...”

(Source: SCOEL SUM Doc 94-final, June 2003)

There is a body of evidence supporting the fact that increased cancer risk would be limited to people already suffering from silicosis. According to the current research, worker protection against silicosis can be consistently assured by respecting the existing regulatory occupational exposure limits.

12. Ecological Information

When used and disposed of as intended, no adverse environmental effects are foreseen. Aggregates are naturally occurring, inert mineral and do not pose a significant ecological hazard.

12.1 Toxicity

Magnesium limestone is a natural mineral of the earth and in a dissolved state, is a natural and indispensable component on natural waters. Under these conditions there are no unfavourable effects to the environment.

Concentrated suspensions in natural waters may have a negative impact on aquatic life.

12.2 Persistence and degradability

Aggregates are resistant to degradation and will persist in the environment.

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12.3 Bioaccumulative potential

Not applicable.

12.4 Mobility in Soil

Not applicable.

12.5 Results of PBT and vPvB assessment

Not relevant for inorganic substances.

13. Disposal Considerations

13.1 Waste treatment methods

Product:

Not classified as Hazardous Waste, can be disposed of as normal industrial waste in line with local and national legislation.

Natural aggregates can be readily reused or recycled.

Contaminated packaging:

Dispose of as unused product.

14. Transport Information

Not classified as dangerous to transport.

Open vehicles should be sheeted to avoid creation of nuisance dust and contain material.

Dry bulk powder should be transported by tanker to avoid creation of nuisance dust.

15. Regulatory Information

Prepared in accordance with the requirements of Retained REACH EU Regulation (UK)

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

- Health & Safety at Work etc. Act 1974
- HSE Guidance Note EH40/2005 Workplace Exposure Limits (as amended)
- Control of Substances Hazardous to Health Regulations (COSHH) 2002 (As amended)
- Environmental Protection Act 1990

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- Manual handling operations Regulations
- Classification, Labelling and Packaging of Substances and Mixtures Regulations 2008 (as amended)
- Chemicals (Hazard Information and Packaging for Supply) Regulations 2009
- Hazardous Waste Regulations 2005 (as amended)

15.2 Chemical Safety Assessment

No data available.

16. Other Information

16.1 Recommended restrictions on use

Use in accordance with manufacturer's technical instructions.

Legal Notice

The information in this Safety Data Sheet should be provided to those who will use, handle, store, transport or otherwise be exposed to the product. It has been prepared for the guidance of plant engineering, operations, management and for the people working with and handling the product and was believed to be correct at the time of issue. However, no guarantee or warranty is made, expressed or implied as to the accuracy or completeness of this information and Marchington Stone Ltd assume no responsibility resulting from its use.

This Safety Data Sheet is based on proper handling and anticipated uses and is for the material without chemical additions or alterations. Users should make their own investigations to determine the suitability of the information for their particular purpose. This safety data sheet does not constitute the user's own assessment of workplace risk, and it is the user's sole responsibility to take all necessary precautions when using this product and a suitable risk assessment / COSHH assessment should be compiled prior to using this product.

If you have purchased this product for supply to a third party for use at work, it is your duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet.

Further copies of this Safety Data Sheet may be obtained from Marchington Stone Limited.

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