



Material Safety Data Sheet Magnesium Carbonate

Edition: 01/01/2014

1) Identification of substance/preparation and of the company undertaking

Material Magnesium Carbonate
 EC no : 208-915-9
 CAS No. : 546-93-0
 REACH registration No. : Exempted in accordance with Annex V.7
 Company Inoxia Ltd
 45.7 Dunsfold Park
 Stovolds Hill
 Cranleigh
 GU6 8TB
 United Kingdom
 Tel: +44 (0) 2032 909990
 safety@inoxia.co.uk
 www.inoxia.co.uk

2) Hazard Identification

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Physical and chemical hazards: Not classified

Human health: Not classified

Environment: Not classified

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

Depending on the type of handling and use (e.g. grinding, drying etc.), airborne respirable crystalline silica may be generated. Prolonged and/or massive inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable crystalline silica dust should be monitored and controlled.

3) Composition

Chemical name	CAS No.	EC-No.	%	Classification (67/548/EEC)	Classification (1272/2008/EC)
Magnesium Carbonate	546-93-0	208-915-9	>90	N/A	N/A
Silicon Dioxide (Quartz)	14808-60-7	238-878-4	<1 (*)	Xn; R48/20	STOT RE 1

(*) in respirable fraction

Other components: CaO, Al₂O₃, Fe₂O₃, Silicate, Carbonate

Full text of R-, H- and EUH-phrases: see section 16

4) First Aid Measures**4.1. Description of first aid measures**

Inhalation: Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion: Rinse mouth thoroughly. Get medical attention if any discomfort continues.

Skin contact: Wash skin with soap and water. Get medical attention if irritation persists after washing.

Eye contact: Make sure to remove any contact lenses from the eyes before rinsing. Rinse eye with water immediately. Get medical attention if any discomfort continues.

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

Inhalation: Dust can cause physical irritation of respiratory tract. Risk of lung disease when exposed to fine dust for a long time.

Ingestion: In large quantities causes irritation, nausea and gastrointestinal upset.

Skin contact: No effect known.

Eye contact: Can cause physical irritation.

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

Treat symptomatically.

5) Fire Fighting**5.1. Extinguishing media**

Suitable extinguishing media: No limitations. Adjust extinguishing media to the surrounding fire

Unsuitable extinguishing media: None

5.2. Special hazards arising from the substance or mixture

Fire hazard: Not flammable.

Explosion hazard: No explosive properties known.

Reactivity: Stable under normal conditions of handling and storage.

5.3. Advice for firefighters

Protection during firefighting: Fire fighter should wear the usual protective clothing and self-contained breathing apparatus.

6) Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

General measures: Keep public away from danger area. See section 8.2.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and soil. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Sweep or shovel spills into appropriate container for disposal.

Avoid dust production.

6.4. Reference to other sections

See section 8 and 13 for more information.

7) Handling/Storage**7.1. Precautions for safe handling**

Precautions for safe handling: Do not breathe dust. Wash hands plentifully and other exposed areas with water after handling. Remove contaminated clothing and shoes. Wash clothing before re-using.

Packagings: Even those that have been emptied, will retain product residue. Always obey safety warnings and handle empty packages as if they were full. Avoid all contact with this substance.

Hygiene measures: When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Remove contaminated clothing and shoes.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in dry, cool, well-ventilated area. Keep away from food, drink and animal feeding stuffs.

8) Exposure Controls

Chemical Name	Inhalable dust	Respirable dust
Magnesium Carbonate	10 mg/m ³	4mg/m ³

Exposure Limits:

Follow workplace regulatory exposure limits for all types of airborne dust (e.g. total dust, respirable dust).

Ingredients comments:

Dust contains respirable silica. Prolonged and/or massive inhalation of respirable silica dust may cause lung fibrosis. Commonly referred to as silicosis. Principal symptoms of silicosis are cough and breathlessness. Occupational exposure to respirable dust should be monitored and controlled. The product should be handled using methods and techniques that minimise or eliminate dust generation. The product contains less than 1% w/w RCS (respirable crystalline silica) as determined by the SWERF method. The respirable crystalline silica content can be measured using the "Size-Weighted Respirable Fraction – SWERF" method. All details about the SWERF method are available at www.crystallinesilica.eu

Appropriate engineering controls: Use as far as possible in a closed system. Provide a regular control of the atmosphere. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Local exhaust and general ventilation must be adequate to meet exposure standards. Please refer to the annex (exposure scenarios).

Hand protection: Use gloves resistant to chemical products corresponding to EN 374:3.

Take advice to gloves' manufacturer.

Eye protection: Wear safety glasses with side shields according to EN 166.

Skin and body protection: Wear closed protective clothing.

Respiratory protection: Use respiratory protection mask according to EN 140 or EN 405 with filter type P3 according to EN 143:2000 or FFP3 according to EN 149:2001.

Environmental exposure controls: Avoid release to the environment.

9) Physical/Chemical Properties

Physical state	Solid Powder
Colour	White
Odour	odourless
Odour threshold	Not applicable
pH	Ca. 10.5 (@10% aqueous dispersion)

Relative evaporation rate (butylacetate=1)	No data available
Melting point	Not applicable, decomposition above 6000C
Freezing point	No data available
Boiling point	Not applicable, decomposition above 6000C
Flash point	Not flammable
Self ignition temperature	Not applicable
Decomposition temperature	6000C
Flammability (solid, gas)	Not flammable
Vapour pressure	Not applicable (not volatile)
Relative vapour density at 20 °C	Not applicable (not volatile)
Relative density	ca. 950g/l
Density	No data available
Solubility	Almost insoluble
Log Pow	Not applicable
Log Kow	Not applicable
Viscosity, kinematic	Not applicable
Viscosity, dynamic	Not applicable
Explosive properties	Not explosive.
Oxidising properties	Non oxidizing material according to EC criteria.
Explosive limits	Not applicable

10) Stability/Reactivity**10.1. Reactivity**

Reacts vigorously with strong acids.

10.2. Chemical stability

Chemically stable up to the decomposition temperature of 6000C, decomposition to magnesium oxide and carbon dioxide.

10.3. Possibility of hazardous reactions

See 10.1.

10.4. Conditions to avoid

No further information available.

10.5. Incompatible materials

See 10.1.

10.6. Hazardous decomposition products

No hazardous decomposition products: decomposes to magnesium oxide and carbon dioxide

11) Toxicological Info**11.1. Information on toxicological effects**

Other health effects: This substance has no evidence of carcinogenic properties.

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	
Serious eye damage/irritation	Not absorbed by intact skin.
Respiratory or skin sensitisation	Can cause physical eye irritation. Short-term inhalation of magnesium carbonate dust or fume can cause temporary irritation of the respiratory tract with pain in chest and shortness of breath. Sensation of the skin is not known.
Germ cell mutagenicity	No known studies. Not considered to be mutagenic in

Carcinogenicity	general. Magnesium carbonate is not classified as carcinogenic under ACGIH, NIOSH, IARC, NTP or OSHA.
Reproductive toxicity	Not known.
STOT – single exposure	Based on available data, the classification criteria are not met.
STOT – repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Inhalation of magnesium carbonate dust or fume can cause irritation of the respiratory tract with pain in chest and shortness of breath.
Other information	Alkalinity: Magnesium carbonate is a mild alkali.

12) Ecological Information

12.1. Acute fish toxicity

As natural occurring mineral, magnesium carbonate is not hazardous for the environment.

12.2. Persistence and degradability

Magnesium carbonate is nearly insoluble in water. No further information available.

12.3. Bioaccumulative potential

Due to its ionic nature it is not a candidate for bioaccumulation.

12.4. Mobility in soil

. Low because of the structure and physicochemical characteristics

12.5. Results of PBT and vPvB assessment

This substance/mixture does not meet the PBT or vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects

None known..

13) Disposal Consideration

Chemical residues generally are considered as special waste. Therefore we recommend to contact the authorities in charge or approved waste disposal companies how to dispose of the waste. The disposal has to be done in compliance with national and regional regulations.

13.1. Waste treatment methods

Landfill is recommended.

The product is a natural mineral occurring in natural rock formations.

14) Transport Information

Not classified as hazardous for transport

15) Regulatory Information

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

Not classified as dangerous according to Council Directive 67/548/EEC

Not classified as dangerous according to Council Regulation 1272/2008/EC

The substance is a natural mineral and therefore exempted from the obligation to register according to Regulation 1907/2006 (REACH): See Regulation 987/2008 Annex V, paragraph 7.

EU Legislation:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulations (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.

15.2. Chemical Safety Assessment.

Exempted from REACH Registration in accordance with Annex V.7

16) Other Information

Full text of R-phrases referred to under sections 2 and 3

R48/20 – Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Full text of S-phrases referred to under sections 2 and 3

S22 – Do not breathe dust.

Training advice:

Workers must be informed of the presence of crystalline silica and trained in the proper use and handling of this product as required under applicable regulations.

Social Dialogue on Respirable Crystalline Silica

A multi-sectorial social dialogue agreement on workers Health Protection through the Good Handling and Use of Crystalline Silica Products Containing it was signed on 25th April 2006. This autonomous agreement, which receives the European Commission's financial support, is based on a Good Practices Guide. The requirements of the Agreement came into force on 25th October 2006. The Agreement was published in the Official Journal of the European Union (2006/C 279/02). The text of the Agreement and its annexes, including the Good Practices Guide, are available from <http://www.nepsi.eu> and provide useful information and guidance for the handling of products containing respirable crystalline silica. Literature references are available on request from EUROSIL, the European Association of Industrial Silica Producers.

Health & Safety Executive (Specific for UK)

Detailed reviews of the scientific evidence on the health effects of crystalline silica have been published by HSE (Health and Safety Executive, UK) in the Hazard Assessment Documents EH75/4 (2002) and EH75/5 (2003). The HSE points out on its website that "Workers exposed to fine dust containing quartz are at risk of developing a chronic and possibly severely disabling lung disease known as "silicosis". In addition to silicosis, there is now evidence that heavy and prolonged workplace exposure to dust containing crystalline silica can lead to an increased risk of lung cancer. The evidence suggests that an increased risk of lung cancer is likely to occur only in those workers who have developed silicosis". In addition to silicosis, there is now evidence that heavy and prolonged workplace exposure to dust containing crystalline silica can lead to an increased risk of lung cancer. The evidence suggests that an increased risk of lung cancer is likely to occur only in those workers who have developed silicosis.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

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