STYROMAG ®

Steirische Magnesitindustrie GmbH

Voluntary safety information based on the safety data sheet format according to Regulation (EC) No. 1907/2006 (REACH)

trade name: STYROMAG® RM/F/04

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1 Substance identification

Name:	Magnesium carbonate
Synonyms:	Magnesite, Raw magnesite
EINECS No:	208-915-9
CAS No:	546-93-0
ZVG Nr.:	2610
Molecular weight:	84,3 g/mol
Chemical Formula:	$MgCO_3$
REACH registration:	exempt from registration according to Regulation (EC) 1907/2006, Annex V

1.2 Identified uses:

- Steel industry
- Area creation
- Fertilizer

Uses advised against: none.

1.3 Company identification:

STYROMAG, Steirische Magnesitindustrie GmbH

E-Mail (competent person): manfred.griessmaier@styromag.at

Contact number: +43 (0) 3869/5100-28

Information contact: STYROMAG, Oberdorf 41, A-8611 Tragöß-St. Katharein, Austria

1.4 EMERGENCY TELEPHONE: +43 (0) 3869/5100

2. HAZARDS IDENTIFICATION

Emergency overview:

2.1 Classification:

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

Not classified as dangerous according to Council Directive 1272/2008/EC.

2.2 Label elements:

none

2.3 Other hazards:

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

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3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Substance

Styromag RM/F/04 is a substance consisting mainly of magnesium carbonate (no dangerous substance) and several minor constituents.

Substance Name	CAS No	Content	Comments
Magnesium carbonate	546-93-0	84 % typical	

Minor constituents and traces: Dolomite $CaMg(CO_3)_2$, Calcite $CaCO_3$ and Talcum $Mg_3Si_4O_{10}(OH)_2$.

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4. FIRST AID MEASURES

4.1 Description of first aid measures:

Eyes:
Rinse cautiously with water. If eye irritation persists, get medical advice and (if needed) attention.

Skin:
Wash with plenty of soap and water.

Respiratory system:
Lead person to fresh air.

Swallow:
Rinse mouth, spit out liquid again

4.1 Most important acute and delayed symptoms and effects:
Main ways of action:
acute: no specific information available
chronical: no specific information available

Metabolism and excretion:
Magnesium (essential trace element, physiological concentration ca. 272-420 mg/kg body mass) is stored in the organism predominantly in the bones (ca. 60 %) und in muscle tissue (ca. 29%). As little as ca. 1 % of the total Mg content in the human body is extracellular, 1/3 of which bound to plasma proteins. The remaining 2/3 (in ionized and dif fusible form) seem to be the biologically active part. Excretion happens nearly exclusively with the urine via the kidneys.
In the human organism, Mg takes part in many basic metabolical processes (especially interaction with calcium and phosphate ions).

4.2 Indications for medical emergency aid or special treatment:
Indications for doctors:
- Symptomatology of acute intoxication:
Only moderate irritation of mucous membranes of the eyes: slight redness and minor conjunctival irritation are distinguishable.
Dermal contact with the substance is clinically insignificant.
Peroral ingestion of magnesium oxide is harmless; there are no reports on intoxications.
- Indications for first aid by doctors:
Rinse affected eyes (again), ophthalmological examination is recommended.
Clean contaminated skin.

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5. FIRE-FIGHTING MEASURES

Technical and constructive measures:
The substance is not combustible. Measures for fire precaution and explosion protection and prevention have to respect the combustible substances present.

5.1 Extinguishing media:
Choose extinguishing media suitable for the combustible substances present.

5.2 Special hazards originating from the substance:
No special fire hazards, because the substances are not combustible

5.3 Indications for fire-fighting measures:
Choose fire-fighting measures suitable for the combustible substances present.

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6. ACCIDENTAL RELEASE MEASURES

6.1.1 Personal precautions, protective clothing and equipment, and procedures to be applied in case of emergency:
Use dust mask.

6.2 Measures for environmental protection:
Protection of waters:
Not classified as hazardous to water.

6.3 Methods and materials for retention and cleaning
Collect mechanically, prevent dust generation.
After that, aerate the place and clean floor and polluted objects.

6.4 Reference to other paragraphs
See paragraphs 7 and 8

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7. HANDLING AND STORAGE

7.1 Precautions for safe handling
workplace - equipment/ aeration:
Install ventilation of workplace.
Install washing facilities near workplace.

Closed equipment:
If the escape of the substance cannot be prevented, it has to be aspirated near the place of escape.
Emission limits (general dust limit) have to be obeyed. Waste-air purification has to be used, if necessary.
Containers have to be labelled unambiguously.

Precautions for safe handling:
When handling, avoid dust formation.

Cleaning and maintenance:
Avoid dust formation

7.2 Precautions for safe storage / incompatibilities
Don't use food containers – danger of confusion!
Containers have to be labelled unambiguously and permanently.
Keep containers tightly closed.

Store in a dry place.
Storage temperature: no limitations.

Storage together with other substances:
Storage class 10 - 13 (no further differentiation, because between storage classes 10 – 13 there are, as regulated by law, no limitations concerning the storage of different substances together.)
Only substances of the same storage class should be stored together. The substance must not be stored together with substances, with which hazardous chemical reactions are possible, see paragraph 10.

7.3 Specific end uses
Steel industry; Fertilizer; Area creation

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8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

8.1 Exposure limit values:

TRGS 900 (DE):	**values**
Inhalable dust (general dust limit value – inhalable fraction)	10 mg/m³
Peak limit: factor of surpassing = 2 duration: 15 min, average value; 4 times per shift; interval 1 h category II – substances of resorptive effect	

8.2 Exposure controls
Technical measures:
Separated working areas, dust aspiration at workplaces or other technical measures that keep the dust concentration below the values indicated in paragraph 8.1.

Personal protection:

Skin protection:
Carry appropriate protective garments (apron, overall, laboratory coat etc.)

Respiratory protection:
In exceptional circumstances (e.g. exceedance of limit values) respiratory protection is necessary.
Respiratory protective device: particle filter (P 1 according to EN 143).

Eye protection:
Use framed protective glasses with lateral protection.

Hand protection:
Choose hand protection depending on the other substances used.

Workplace hygiene:
Observe usual hygienic measures for the handling of chemical substances, especially clean your hands before breaks and after work and use skin care products after cleaning.
Avoid respiration of dusts.

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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance:

Physical State: solid Form: granular, powder Colour: grey Odour: without odour

Parameter	Value	Method	Comments
Melting point m.p. [°C]:	-		under normal pressure not melting without decomposition
Boiling point b.p. [°C]:	-		under normal pressure not vaporable without decomposition
Flammability [°C]:			not applicable
Lower and upper explosion limit:			not applicable
Flash point:			not applicable
Auto-ignition temperature:			not applicable
Decomposition temperature:			not applicable
pH:			not applicable
Kinematic viscosity:			not applicable
Solubility in water (20°C) [mg/l]:	106		
Partition coefficient n-oktanol/water (log-value):			not applicable (inorganic)
Vapour pressure:			not applicable
Density [g/cm³]:	ca. 3		
Relative vapour density:			not applicable
Particle characteristics:	coarse to finegrained		.

9.2 Other information

Information with regard to physical hazard classes:	hazard classes acc. to GHS (physical hazards): not relevant
Other safety characteristics:	There is no additional information.

10. STABILITY AND REACTIVITY

10.1 Reactivity:
Reacts with strong acids with evolution of carbon dioxide CO2.

10.2 Chemical stability:
Well sealed unlimited shelf life.

10.3 Possible hazardous reactions:

Reacts with strong acids with evolution of carbon dioxide CO2.

10.4 Conditions to be avoided:

Access of mineral acids.

10.5 Incompatible materials:

none

10.6 Hazardous decomposition products:

Carbon dioxide CO2.

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11. TOXICOLOGICAL INFORMATION

11.1 Toxicological effects:

Acute Toxicity:
There are only a few indications of magnesium carbonate.
The danger of health impairment in the professional handling is seen in particular by a dust load. At the eyes and respiratory tract irritation (especially physical) can be expected. The toxicity of the substance when ingested is not available from animal experiments.
Experience with basic magnesium carbonate (magnesia alba, therapeutically used inter alia as antacid) does not indicate high acute toxicity.

Chronical toxicity:
For chronic effects on occupational exposure, no specific information is available.

Toxicity for reproduction, mutagenicity, carcinogenicity
Toxicity for reproduction: no data available
Mutagenicity: no data available
Carcinogenicity: no sufficient data available.

Metabolism and excretion
Magnesium is an essential trace element (physiological concentration ca. 272 – 420 mg/kg body weight) and is stored in the organism especially in the bones (ca. 60 %) and in muscle tissue (ca. 29 %).

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12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity:

Magnesite = magnesium carbonate and its accompanying minerals dolomite, calcite and talc are naturally occurring rock and mountain-forming minerals. Dissolved magnesium salts are typical constituents of many ground and mineral waters. Any environmental toxicity of magnesium carbonate is unknown.

12.2 Persistence and degradability:

Magnesium carbonate is part of a natural rock and thus very stable. The gradual dissolution of fine-grained magnesium carbonate during ventilation and in the ground corresponds to accelerated weathering.

12.3 Bioaccumulative potential:

Will be absorbed by plants as magnesium is an essential plant nutrient and e.g. is required for chlorophyll formation, see Textbooks of Soil Science.

12.4 Mobility in the soil:

See Textbooks of Soil Science.

12.4 Results of PBT and vPvB assessment:

Not classified as PBT or vPvB substance

12.6 Endocrine disrupting properties:

Not listed.

12.7 Other adverse effects

Other adverse effects are not known

13. DISPOSAL CONSIDERATIONS

No hazardous waste according to the Waste Catalog Ordinance (AVV).
If recovery is not possible, waste must be disposed of in compliance with national, international and local regulatory requirements.

13.1 Waste treatment:

According to the applicable national, international and local regulations.

13.1.2 Waste name:

not applicable

13.2 Contaminated packaging

Packaging emptied as well as possible can be dealt through the regulation for packaging of non-hazardous goods. Packaging can be disposed of in accredited plants for recovery.

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14. TRANSPORT INFORMATION

Surface transport (ADR/RID/GGVSE):
Classification code: not listed

14.1 UN No:
not listed

14.2 UN denomination:
not listed

14.3 Transport hazard class:
not listed

14.4 Packaging group:
none

14.5 Environmental hazards:
none

14.6 Special provisions for users:
Do not inhale the dust.

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15. REGULATORY INFORMATION

- Not classified as dangerous according to Council Directive 67/548/EWG.
- Not classified as dangerous according to regulation EC 1272/2008.
- Exempted from regulation 1907/2006 (REACHV) according to Annex V, 7

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16. OTHER INFORMATION

Indication of changes (revised safety data sheet)

Voluntary safety information based on the safety data sheet format according to Regulation (EC) No. 1907/2006 (REACH)

trade name: STYROMAG® RM/F/04
material no.: n. a. version: 1.2 / EN last change: 23.04.2025
specification: MgO 40 % typ. page 11 of 11 printing date: 23.04.2025

Alignment to regulation:

Restructuring: section 9, section 14

Section	Former entry	Actual entry	Safety relevant
2.1	Classification according to Regulation (EC) No 1272/2008 (CLP): This substance does not meet the criteria for classification in accordance with Regulation No 1272/2008/EC.	Classification acc. to GHS: This substance does not meet the criteria for classification.	yes
2.2	Signal word: not required	Signal word: not required	yes
2.3	Other hazards: There is no additional information.	Other hazards: There is no additional information.	yes
2.3		Results of PBT and vPvB assessment: According to the results of its assessment, this substance is not a PBT or a vPvB.	yes

This safety data sheet is based on our current knowledge.

This safety data sheet gives information only with regard to safety requirements.

Certain properties or a specific use of this substance are not ensured even if detailed information is given in this safety data sheet.