

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Revision Date 18.12.2018

Version 6.7

SECTION 1. Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier**

Catalogue No.	105815
Product name	Magnesium powder particle size about 0.06-0.3mm
REACH Registration Number	A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) No 1907/2006, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.
CAS-No.	7439-95-4

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

Identified uses	Reagent for analysis, Chemical production For additional information on uses please refer to the Merck Chemicals portal (www.merckgroup.com).
-----------------	--

1.3 Details of the supplier of the safety data sheet

Company	Merck KGaA * 64271 Darmstadt * Germany * Phone: +49 6151 72-0
Responsible Department	PM-OQR * e-mail: PM_SDS_Supply@merckgroup.com

1.4 Emergency telephone number **Please contact the regional company representation in your country.****SECTION 2. Hazards identification****2.1 Classification of the substance or mixture**
Classification (REGULATION (EC) No 1272/2008)

Pyrophoric solid, Category 1, H250
Substances, which in contact with water, emit flammable gases, Category 1, H260
For the full text of the H-Statements mentioned in this Section, see Section 16.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 105815
Product name Magnesium powder particle size about 0.06-0.3mm

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms



Signal word

Danger

Hazard statements

H250 Catches fire spontaneously if exposed to air.

H260 In contact with water releases flammable gases which may ignite spontaneously.

Precautionary statements

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Response

P370 + P378 In case of fire: Use powder for extinction.

Storage

P402 + P404 Store in a dry place. Store in a closed container.

Reduced labelling (≤ 125 ml)

Hazard pictograms



Signal word

Danger

Hazard statements

H250 Catches fire spontaneously if exposed to air.

Precautionary statements

P370 + P378 In case of fire: Use metal fire powder for extinction.

Index-No. 012-001-00-3

2.3 Other hazards

None known.

SECTION 3. Composition/information on ingredients

3.1 Substance

Formula	Mg (Hill)
Index-No.	012-001-00-3
EC-No.	231-104-6

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 105815
Product name Magnesium powder particle size about 0.06-0.3mm

Molar mass 24,31 g/mol

Remarks No disclosure requirement according to Regulation (EC) No. 1907/2006

3.2 Mixture

Not applicable

SECTION 4. First aid measures

4.1 Description of first aid measures

After inhalation: fresh air.

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

After eye contact: rinse out with plenty of water. Remove contact lenses.

After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed

irritant effects, Stomach/intestinal disorders

4.3 Indication of any immediate medical attention and special treatment needed

No information available.

SECTION 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Special powder against metal fire, Sand, Cement

Unsuitable extinguishing media

Water, Foam, Carbon dioxide (CO₂)

5.2 Special hazards arising from the substance or mixture

Combustible.

Risk of dust explosion.

Potential for spontaneous combustion.

Development of hazardous combustion gases or vapours possible in the event of fire.

May not get in touch with:

Water

Caution! in contact with water product releases:

Hydrogen, Risk of explosion.

5.3 Advice for firefighters

Special protective equipment for firefighters

In the event of fire, wear self-contained breathing apparatus.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 105815
Product name Magnesium powder particle size about 0.06-0.3mm

Further information
none

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

Advice for emergency responders:

Protective equipment see section 8.

6.2 Environmental precautions

Do not let product enter drains.
Risk of explosion.

6.3 Methods and materials for containment and cleaning up

Observe possible material restrictions (see sections 7 and 10). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

6.4 Reference to other sections

Indications about waste treatment see section 13.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Keep workplace dry. Do not allow product to come into contact with water.

Observe label precautions.

Work under hood. Do not inhale substance/mixture.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Dry.

Tightly closed. Keep away from heat and sources of ignition.

Recommended storage temperature see product label.

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 105815
Product name Magnesium powder particle size about 0.06-0.3mm

8.2 Exposure controls

Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

See section 7.1.

Individual protection measures

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.

Eye/face protection

Safety glasses

Hand protection

full contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

splash contact:

Glove material:	Nitrile rubber
Glove thickness:	0,11 mm
Break through time:	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374, for example KCL 741 Dermatril® L (full contact), KCL 741 Dermatril® L (splash contact).

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types.

This recommendation applies only to the product stated in the safety data sheet (>,<) supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Other protective equipment

protective clothing

Respiratory protection

required when dusts are generated.

Recommended Filter type: Filter P 1 (acc. to DIN 3181) for solid particles of inert substances

The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer.

These measures have to be properly documented.

Environmental exposure controls

Do not let product enter drains.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 105815
Product name Magnesium powder particle size about 0.06-0.3mm

Risk of explosion.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	solid
Colour	light grey
Odour	odourless
Odour Threshold	No information available.
pH	No information available.
Melting point	651 °C
Boiling point/boiling range	1.107 °C at 1.013 hPa
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	0,00013 hPa at 325 °C
Relative vapour density	No information available.
Density	1,74 g/cm ³ at 20 °C
Relative density	No information available.
Water solubility	at 20 °C (slow decomposition)
Partition coefficient: n-octanol/water	Not applicable
Auto-ignition temperature	Catches fire spontaneously if exposed to air.
Decomposition temperature	No information available.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 105815
Product name Magnesium powder particle size about 0.06-0.3mm

Viscosity, dynamic No information available.
Explosive properties Not classified as explosive.
Oxidizing properties none

9.2 Other data

Ignition temperature > 450 °C
Particle size Particle size
ca.0,06 - 0,3 mm

SECTION 10. Stability and reactivity

10.1 Reactivity

Self-ignition possible due to air moisture.
Risk of dust explosion.

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

10.3 Possibility of hazardous reactions

Risk of ignition or formation of inflammable gases or vapours with:

Water, Peroxides, Cyanides, halogens, carbides, halogen-halogen compounds, hydrogen iodide, carbon dioxide, nitrogen dioxide, hydrogen peroxide, Nitric acid, Halogenated hydrocarbon

Risk of explosion with:

Generates dangerous gases or fumes in contact with:

Ammonium salts, metallic oxides, alkalines, Alcohols, Halogenated compounds, sulfur, Acids, Oxidizing agents, sulfates, phosphates, silicon compounds, perchlorates, nitrates, chlorates, Potassium carbonate, ferric oxide, Chloroform, calcium carbonate, halogen compounds

10.4 Conditions to avoid

Moisture.

10.5 Incompatible materials

no information available

10.6 Hazardous decomposition products

no information available

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Acute oral toxicity

Symptoms: Stomach/intestinal disorders

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 105815
Product name Magnesium powder particle size about 0.06-0.3mm

Acute inhalation toxicity

Symptoms: Irritation symptoms in the respiratory tract.

Acute dermal toxicity

Symptoms: Tendency of poor wound-healing after penetration of the substance.

Skin irritation

This information is not available.

Eye irritation

Possible damages: slight irritation

Sensitisation

This information is not available.

Germ cell mutagenicity

This information is not available.

Carcinogenicity

This information is not available.

Reproductive toxicity

This information is not available.

Teratogenicity

This information is not available.

Specific target organ toxicity - single exposure

This information is not available.

Specific target organ toxicity - repeated exposure

This information is not available.

Aspiration hazard

This information is not available.

11.2 Further information

After uptake of large quantities:

lack of appetite, change in weight

However, when the product is handled appropriately, hazardous effects are unlikely to occur.

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12. Ecological information

12.1 Toxicity

No information available.

12.2 Persistence and degradability

Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water

Not applicable

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 105815
Product name Magnesium powder particle size about 0.06-0.3mm

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

12.6 Other adverse effects

Additional ecological information

Harmful effect due to pH shift.

No ecological problems are to be expected when the product is handled and used with due care and attention.

SECTION 13. Disposal considerations

Waste treatment methods

See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14. Transport information

Land transport (ADR/RID)

14.1 UN number	UN 1418
14.2 Proper shipping name	MAGNESIUM POWDER
14.3 Class	4.3 (4.2)
14.4 Packing group	II
14.5 Environmentally hazardous	--
14.6 Special precautions for user	yes
Tunnel restriction code	D/E

Inland waterway transport (ADN)

Not relevant

Air transport (IATA)

14.1 UN number	UN 1418
14.2 Proper shipping name	MAGNESIUM POWDER
14.3 Class	4.3 (4.2)
14.4 Packing group	II
14.5 Environmentally hazardous	--
14.6 Special precautions for user	yes
IATA (Passenger)	Not permitted for transport

Sea transport (IMDG)

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 105815
Product name Magnesium powder particle size about 0.06-0.3mm

14.1 UN number UN 1418
14.2 Proper shipping name MAGNESIUM POWDER
14.3 Class 4.3 (4.2)
14.4 Packing group II
14.5 Environmentally hazardous --
14.6 Special precautions for user yes
EmS F-G S-O
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not relevant

SECTION 15. Regulatory information

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

EU regulations

Major Accident Hazard Legislation SEVESO III
PYROPHORIC LIQUIDS AND SOLIDS
P7
Quantity 1: 50 t
Quantity 2: 200 t

SEVESO III
OTHER HAZARDS
O2
Quantity 1: 100 t
Quantity 2: 500 t

Occupational restrictions Take note of Dir 94/33/EC on the protection of young people at work.

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer not regulated

Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC not regulated

Substances of very high concern (SVHC) This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of $\geq 0.1\%$ (w/w).

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 105815
Product name Magnesium powder particle size about 0.06-0.3mm

National legislation
Storage class 4.2

15.2 Chemical safety assessment

For this product a chemical safety assessment was not carried out.

SECTION 16. Other information

Full text of H-Statements referred to under sections 2 and 3.

H250 Catches fire spontaneously if exposed to air.
H260 In contact with water releases flammable gases which may ignite spontaneously.

Training advice

Provide adequate information, instruction and training for operators.

Labelling

Hazard pictograms



Signal word
Danger

Hazard statements

H250 Catches fire spontaneously if exposed to air.
H260 In contact with water releases flammable gases which may ignite spontaneously.

Precautionary statements

Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Response

P370 + P378 In case of fire: Use powder for extinction.

Storage

P402 + P404 Store in a dry place. Store in a closed container.

Key or legend to abbreviations and acronyms used in the safety data sheet

Used abbreviations and acronyms can be looked up at www.wikipedia.org.

Regional representation

This information is given on the authorised Safety Data Sheet for your country.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Catalogue No. 105815
Product name Magnesium powder particle size about 0.06-0.3mm

The information contained herein is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precautions. It does not represent a guarantee of any properties of the product.

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact mlsbranding@sial.com.