ChemicalBook

Chemical Safety Data Sheet MSDS / SDS

Magnesium

Revision Date:2025-02-01 Revision Number:1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name	: Magnesium
CBnumber	: CB9249642
CAS	: 7439-95-4
EINECS Number	: 231-104-6
Synonyms	: Magnesium,magnesium turnings

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

Relevant identified uses	: For R&D use only. Not for medicinal, household or other use.
Uses advised against	: none

Company Identification

Company	: Chemicalbook
Address	: Building 1, Huihuang International, Shangdi 10th Street, Haidian District, Beijing
Telephone	: 010-86108875

SECTION 2: Hazards identification

GHS Label elements, including precautionary statements

Symbol(GHS)

Signal word Danger

Precautionary statements

P422 Store contents under …

P420 Store away from other materials.

P413 Store bulk masses greater than … kg/…lbs at temperatures not exceeding … oC/…oF.

P407 Maintain air gap between stacks/pallets.

P403+P235 Store in a well-ventilated place. Keep cool.

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

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

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P235+P410 Keep cool. Protect from sunlight.

P231+P232 Handle under inert gas. Protect from moisture.

P223 Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P222 Do not allow contact with air.

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

Hazard statements

H351 Suspected of causing cancer

H335 May cause respiratory irritation

H319 Causes serious eye irritation

H302 Harmful if swallowed

H261 In contact with water releases flammable gas

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

H251 Self-heating; may catch fire

H250 Catches fire spontaneously if exposed to air

H228 Flammable solid

H225 Highly Flammable liquid and vapour

SECTION 3: Composition/information on ingredients

Substance

Product name	: Magnesium
Synonyms	: Magnesium,magnesium turnings
CAS	: 7439-95-4
EC number	: 231-104-6
MF	: Mg
MW	: 24.31

SECTION 4: First aid measures

Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

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

In case of eye contact

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

If swallowed

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

Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media

Special powder against metal fire Cover with dry sand or cement.

Unsuitable extinguishing media

Foam Water

Special hazards arising from the substance or mixture

Magnesium oxide Not combustible.

May not get in touch with: Water

Ambient fire may liberate hazardous vapours.

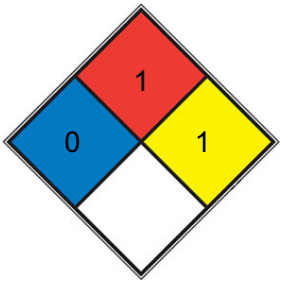
Advice for firefighters

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

Further information

none

NFPA 704



■	HEALTH	0	Poses no health hazard, no precautions necessary and would offer no hazard beyond that of ordinary combustible materials
■	FIRE	1	Materials that require considerable preheating, under all ambient temperature conditions, before ignition and combustion can occur. Includes some finely divided suspended solids that do not require heating before ignition can occur. Flash point at or above 93.3 °C (200 °F). (e.g. mineral oil, ammonia)
■	REACT	1	Normally stable, but can become unstable at elevated temperatures and pressures (e.g. propene)
□	SPEC. HAZ.		

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert.
For personal protection see section 8.

Environmental precautions

Do not let product enter drains. Risk of explosion.

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.

Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling

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

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.Take precautionary measures against static discharge.

Hygiene measures

Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.

Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep away from heat and sources of ignition.
Never allow product to get in contact with water during storage.

Specific end use(s)

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

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SECTION 8: Exposure controls/personal protection

control parameter

Hazard composition and occupational exposure limits

Does not contain substances with occupational exposure limits.

Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate
government standards such as NIOSH (US) or EN 166(EU). Safety glasses

Skin protection

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).

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

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).

Splash contact Material: Nitrile rubber

Minimum layer thickness: 0,11 mm Break through time: 480 min

Material tested:KCL 741 Dermatril? L

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when dusts are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type P1

The entrepeneur 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.

Control of environmental exposure

Do not let product enter drains. Risk of explosion.

SECTION 9: Physical and chemical properties

Information on basic physicochemical properties

Appearance	powder
Odour	No data available
Odour Threshold	No data available
pH	No data available
Melting point/freezing point	Melting point/range: 648 °C
Initial boiling point and boiling range	1.090 °C
Flash point	−26 °F
Evaporation rate	No data available

Flammability (solid, gas)	May form combustible dust concentrations in air.
Upper/lower flammability or explosive limits	No data available
Vapour pressure	1 hPa at 621 °C
Vapour density	6 (vs air)
Relative density	1.74
Water solubility	H_2O: 1 M at 20 °C, clear, colorless
Partition coefficient: n-octanol/water	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	No data available
Oxidizing properties	No data available
resistivity	4.46 μΩ-cm, 20°C

Other safety information

No data available

SECTION 10: Stability and reactivity

Reactivity

Self-heating; may catch fire.

Chemical stability

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

Possibility of hazardous reactions

Risk of dust explosion.

Reacts with the following substances: Acids

Bases

Oxidizing agents

Conditions to avoid

Exposure to moisture. Exposure to air. Moisture.

Incompatible materials

No data available

Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Oral

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

No data available

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

SECTION 12: Ecological information

Toxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

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

Toxics Screening Level

The ITSL for magnesium, magnesium oxide and magnesium hydroxide, either individually or in any combination, is being established at 100

µg/m3 with an 8-hour average based on 1 percent of the ACGIH TLV for magnesium oxide.

Other adverse effects

No data available

SECTION 13: Disposal considerations

Waste treatment methods

Incompatibilities

Reacts violently with, oxidizers, strong acids; acetylene, ammonium salts; arsenic, beryllium fluoride, carbon tetrachloride, carbonates, chloroform, cyanides, chlorinated hydrocarbons; ethylene oxide; hydrocarbons, metal oxides; methanol, phosphates, silver nitrate; sodium peroxide; sulfates, trichloroethylene.

Product

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

SECTION 14: Transport information

UN number

ADR/RID:IMDG:IATA:ADR/RID:IMDG:IATA:

UN number

ADR/RID:IMDG:IATA:ADR/RID:IMDG:IATA:

IATA:

UN number

ADR/RID: 1993 IMDG: 1993 IATA: 1993

ADR/RID: 1987 IMDG: 1987 IATA: 1987

ADR/RID: 3 IMDG: 3 IATA: 3

ADR/RID: 2789 IMDG: 2789 IATA: 2789

ADR/RID: - IMDG: - IATA: -

ADR/RID: - IMDG: - IATA: -

ADR/RID: 2811 IMDG: 2811 IATA: 2811

ADR/RID: 2811 IMDG: 2811 IATA: 2811

ADR/RID: 3077 IMDG: 3077 IATA: 3077

ADR/RID: - IMDG: - IATA: -

UN proper shipping name

ADR/RID: Not dangerous goods IMDG: Not dangerous goods IATA: Not dangerous goods

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-(4- Chlorophenoxy)benzaldehyde) IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (2-(4- Chlorophenoxy)benzaldehyde) IATA: Environmentally hazardous substance, solid, n.o.s. Chlorophenoxy)benzaldehyde)

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (cupferron) IMDG: TOXIC SOLID, ORGANIC, N.O.S. (cupferron) IATA: Toxic solid, organic, n.o.s.

(cupferron)

ADR/RID: TOXIC SOLID, ORGANIC, N.O.S. (Genipin) IMDG: TOXIC SOLID, ORGANIC, N.O.S. (Genipin) IATA: Toxic solid, organic, n.o.s. (Genipin)

ADR/RID: - IMDG: - IATA: -

ADR/RID: - IMDG: - IATA: -

ADR/RID: ACETIC ACID, GLACIAL IMDG: ACETIC ACID, GLACIAL IATA: Acetic acid, glacial

ADR/RID: II IMDG: II IATA: II

ADR/RID: ALCOHOLS, N.O.S. (Pent-3-yn-1-ol) IMDG: ALCOHOLS, N.O.S. (Pent-3-yn-1-ol) IATA: Alcohols, n.o.s. (Pent-3-yn-1-ol)

ADR/RID: FLAMMABLE LIQUID, N.O.S. (2-Ethylfuran) IMDG: FLAMMABLE LIQUID, N.O.S. (2-Ethylfuran) IATA: Flammable liquid, n.o.s. (2-Ethylfuran)

Transport hazard class(es)

ADR/RID: 3 IMDG: 3 IATA: 3

ADR/RID: 3 IMDG: 3 IATA: 3

ADR/RID: yes IMDG Marine pollutant: yes IATA: no

ADR/RID: 8 (3) IMDG: 8 (3) IATA: 8 (3)

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

(2-(4- ADR/RID: 9 IMDG: 9 IATA: 9

ADR/RID: - IMDG: - IATA: -

Packaging group

ADR/RID: III IMDG: III IATA: III

ADR/RID: - IMDG: - IATA: -

ADR/RID: III IMDG: III IATA: III

ADR/RID: III IMDG: III IATA: III

No data available

No data available

ADR/RID: II IMDG: II IATA: II

No data available

ADR/RID: III IMDG: III IATA: III

ADR/RID: II IMDG: II IATA: II

Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: yes IMDG Marine pollutant: yes IATA: yes

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no IMDG Marine pollutant: no IATA: no

ADR/RID: no IMDG Marine pollutant: no IATA: no

Special precautions for user

No data available

No data available

No data available

Further information EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings with Dangerous Goods > 5L for liquids or > 5kg for solids.

No data available

No data available

SECTION 15: Regulatory information

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

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Other regulations

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

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Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

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SECTION 16: Other information

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

H228 Flammable solid.

H251 Self-heating; may catch fire.

H261 In contact with water releases flammable gas.