

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



MAGNESIUM

Version: 10
Revision date: 19/01/2018

Page 1 of 9
Print date: 19/01/2018

SECTION 1: IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name:	MAGNESIUM
Chemical Name:	Magnesium
CAS No:	7439-95-4
Index No:	012-002-00-9
EC No:	231-104-6
Registration No:	01-2119537203-49-XXXX

1.2 Relevant identified uses of the substance and uses advised against.

Not available.

1.3 Details of the supplier of the safety data sheet.

Company:	ALDEBARÁN SISTEMAS SL
Address:	C/Jerónimo Zurita, 10, entlo izda, 50001
City:	Zaragoza
Province:	Zaragoza
Telephone:	0034976796134
E-mail:	aldebaran@aldebaransistemas.com

1.4 Emergency telephone number: 0034915620420 (Available 24 hours)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance.

In accordance with Regulation (EU) No 1272/2008:

Flam. Sol. 1 : Flammable solid.

Water-react. 2 : In contact with water releases flammable gases.

2.2 Label elements.

Labelling in accordance with Regulation (EU) No 1272/2008:

Pictograms:



Signal Word:

Danger

H statements:

H228	Flammable solid.
H261	In contact with water releases flammable gases.

P statements:

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof [electrical/ventilating/lighting/...] equipment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



MAGNESIUM

Version: 10
Revision date: 19/01/2018

Page 2 of 9
Print date: 19/01/2018

P370+P378 In case of fire: Use special media to extinguish.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations

2.3 Other hazards.

In normal use conditions and in its original form, the product itself does not involve any other risk for health and the environment.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Mono-constituent.

Chemical Name:	Magnesium
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SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

Take affected persons out of danger area and lay down

Inhalation.

Supply fresh air; consult doctor in case of complaints.

Eye contact.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Skin contact.

Generally the product does not irritate the skin.

Ingestion.

If symptoms persist consult a doctor

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

No further relevant information available.

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

No further relevant information available

SECTION 5: FIREFIGHTING MEASURES.

5.1 Extinguishing media.

Recommended extinguishing methods.

Extinguishing powder or dry sand. Do not use water.
Unsuitable extinguishing media: Water, foam, carbon dioxide.

5.2 Special hazards arising from the substance.

Contact with water releases flammable gases.
Dust can combine with air to form an explosive mixture.

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



MAGNESIUM

Version: 10
Revision date: 19/01/2018

Page 3 of 9
Print date: 19/01/2018

5.3 Advice for firefighters.

Visor with mirrored glass

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

Wear protective equipment. Keep unprotected person away.
Avoid formation of dust
Keep away from ignition sources.

6.2 Environmental precautions.

Do not allow product to reach sewage system or any water course.

6.3 Methods and material for containment and cleaning up.

Do not flush with water or aqueous cleansing agents
Pick up mechanically.

6.4 Reference to other sections.

See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

Store in tightly closed containers, in a dry and cool environment.
Avoid the formation of dust.
Regularly remove the dust that inevitably forms
Keep fire sources away. No Smoking.
Protect against electrostatic charges.
Protect from heat.
The combination of air, dust can form an explosive mixture.

7.2 Conditions for safe storage, including any incompatibilities.

Store in a cool location
Store away from flammable substances, that differ in the means of extinction.
Protect from humidity and water
Store in cool, dry conditions in well sealed receptacles.

7.3 Specific end use(s).

No further relevant information available

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

Ingredients with limit values that require monitoring at the workplace: Not required

DNELs

Magnesium:

Acute / long term DNEL (worker, inhalation, local effects): no effects

Long-term DNEL (worker, inhalation, systemic effects): 46,3 mg/m³

Long-term DNEL (population, oral, systemic effects): 3,6 mg/kg bw/day

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



MAGNESIUM

Version: 10
Revision date: 19/01/2018

Page 4 of 9
Print date: 19/01/2018

PNECs

Magnesium

PNEC aqua (fresh water): 0,41 mg/

PNES aqua (marine water) 0,41 mg/l

PNEC aqua (intermittant releases): 1,4 mg/l

PNEC sediment (fresh water): 268 mg/kg sediment dw

PNEC sediment (marine water) 268 mg/kg sediment dw

This list valid during the making were used as basis.

8.2 Exposure controls.

Measures of a technical nature:

Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

Concentration:	100 %		
Uses:			
Breathing protection:			
PPE:	Particle filter mask		
Characteristics:	«CE» marking, category III. Made of filtering material, it covers nose, mouth and chin.		
CEN standards:	EN 149		
Maintenance:	Check for any tears, defects, etc. before use. Since it is disposable individual protection equipment, it should be replaced after use.		
Observations:	Does not protect worker unless properly adjusted. Follow the manufacturer's instructions regarding suitable use of the equipment.		
Filter Type needed:	P1 y P2		
Hand protection:			
PPE:	Work gloves.		
Characteristics:	«CE» marking, category II.		
CEN standards:	EN 374-1, En 374-2, EN 374-3, EN 420		
Maintenance:	Keep in a dry place, away from any sources of heat, and avoid exposure to sunlight as much as possible. Do not make any changes to the gloves that may alter their resistance, or apply paints, solvents or adhesives.		
Observations:	Gloves should be of the appropriate size and fit the user's hand well, not being too loose or too tight. Always use with clean, dry hands.		
Material:	PVC (polyvinyl chloride)	Breakthrough time (min.):	> 480
		Material thickness (mm):	0,35
Eye protection:			
PPE:	Protective goggles against particle impacts.		
Characteristics:	«CE» marking, category II. Eye protector against dust and smoke.		
CEN standards:	EN 165, EN 166, EN 167, EN 168		
Maintenance:	Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer's instructions. Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.		
Observations:			
Skin protection:			
PPE:	Anti-static protective clothing.		
Characteristics:	«CE» marking, category II. Protective clothing should not be too tight or loose in order not to obstruct the user's movements.		
CEN standards:	EN 340, EN 1149-1, EN 1149-2, EN 1149-3, EN 1149-5		
Maintenance:	In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer.		

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



MAGNESIUM

Version: 10
Revision date: 19/01/2018

Page 5 of 9
Print date: 19/01/2018

Observations:	The protective clothing should offer a level of comfort in line with the level of protection provided in terms of the hazard against which it protects, bearing in mind environmental conditions, the user's level of activity and the expected time of use.
PPE:	Anti-static safety footwear.
Characteristics:	«CE» marking, category II.
CEN standards:	EN ISO 13287, EN ISO 20344, EN ISO 20346
Maintenance:	The footwear should be checked regularly
Observations:	The level of comfort during use and acceptability are factors that are assessed very differently depending on the user. Therefore, it is advisable to try on different footwear models and, if possible, different widths.



SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.

9.1 Information on basic physical and chemical properties.

Appearance: Powder
Colour: Silver Grey
Odour: Unodorous
pH: N.A./N.A.
Melting point: 651 °C
Boiling Point: 1107°C
Flash point: N.A./N.A.
Evaporation rate: N.A./N.A.
Inflammability (solid, gas): Highly flammable. Contact with water liberates extremely flammable gases
Lower Explosive Limit: 30-500 g/m³
Upper Explosive Limit: N.A./N.A.
Vapour pressure: N.A./N.A.
Vapour density: N.A./N.A.
Relative density: 1,7 g/cm³
Solubility: Insoluble
Liposolubility: N.A./N.A.
Hydrosolubility: N.A./N.A.
Partition coefficient (n-octanol/water): N.A./N.A.
Auto-ignition temperature: Not self-ignite °C
Decomposition temperature: N.A./N.A.
Viscosity: N.A./N.A.
Explosive properties: The combination of air, dust can form an explosive mixture
Oxidizing properties: N.A./N.A.
N.A./N.A. = Not Available/Not Applicable due to the nature of the product

9.2 Other information.

Pour point: N.A./N.A.
Blink: N.A./N.A.
Kinematic viscosity: N.A./N.A.
N.A./N.A. = Not Available/Not Applicable due to the nature of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.

No relevant data available

10.2 Chemical stability.

It does not decompose if handled and stored properly

10.3 Possibility of hazardous reactions.

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



MAGNESIUM

Version: 10
Revision date: 19/01/2018

Page 6 of 9
Print date: 19/01/2018

Danger of dust explosion.
Reacts with acids, alkalis and oxidants.
When coming into contact with water releases flammable gases.

10.4 Conditions to avoid.

No relevant dates available

10.5 Incompatible materials.

It must be stored segregated with materials of the same hazard classification.

10.6 Hazardous decomposition products.

Hydrogen.

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects.

Acute toxicity;

Skin corrosion/irritation;
No irritant effect

Serious eye damage/irritation;
No irritant effect

Respiratory or skin sensitisation;
No sensitising effects known

Germ cell mutagenicity;
No further relevant information available

Carcinogenicity;
No further relevant information available

Reproductive toxicity;
No further relevant information available

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

Aquatic toxicity: No further relevant information available.

12.2 Persistence and degradability.

No further relevant information available

12.3 Bioaccumulative potencial.

No further relevant information available

12.4 Mobility in soil.

No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.

No information is available about the results of PBT and vPvB assessment of the product.

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



MAGNESIUM

Version: 10
Revision date: 19/01/2018

Page 7 of 9
Print date: 19/01/2018

12.6 Other adverse effects.

No further relevant information available

SECTION 13 DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Contact manufacturer for recycling information.

European Waste Catalogue

According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste Codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

16 03	Off-specification batches and unused products
16 03 03*	Inorganic wastes containing dangerous substances

Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION.

Transport following ADR rules for road transport, RID rules for railway, ADN for inner waterways, IMDG for sea, and ICAO/IATA for air transport.

Land: Transport by road: ADR, Transport by rail: RID.

Transport documentation: Consignment note and written instructions

Sea: Transport by ship: IMDG.

Transport documentation: Bill of lading

Air: Transport by plane: ICAO/IATA.

Transport document: Airway bill.

14.1 UN number.

UN No: UN1418

14.2 UN proper shipping name.

Description:

ADR: UN 1418, MAGNESIUM POWDER, 4.3 (4.2), PG II, (D/E)

IMDG: UN 1418, MAGNESIUM POWDER, 4.3 (4.2), PG II

ICAO: UN 1418, MAGNESIUM POWDER, 4.3 (4.2), PG II

14.3 Transport hazard class(es).

Class(es): 4.3

14.4 Packing group.

Packing group: II

14.5 Environmental hazards.

Marine pollutant: No

14.6 Special precautions for user.

Labels: 4.3, 4.2

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



MAGNESIUM

Version: 10
Revision date: 19/01/2018

Page 8 of 9
Print date: 19/01/2018



Hazard number: 423
ADR LQ: 0
IMDG LQ: 0
ICAO LQ: 0

Provisions concerning carriage in bulk ADR: Not authorized carriage in bulk in accordance with ADR.
Transport by ship, FEm – Emergency sheets (F – Fire, S - Spills): F-G,S-O
Proceed in accordance with point 6.
IMDG Code segregation group: 15 Powdered metals

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.

The product is not transported in bulk.

ADR

Excepted quantities (EQ)	E2
Limited quantities (LQ)	0
Excepted quantities	Code: E2
	Maximum net quantity per inner packaging: 30g
	Maximum net quantity per outer packaging: 500 g
Transport category	2
Tunnel restriction code	D/E

IMDG

Limited quantities (LQ)	0
Excepted quantities	Code: E2
	Maximum net quantity per inner packaging: 30g
	Maximum net quantity per outer packaging: 500 g

UN "Model Regulation"

UN 1418, MAGNESIUM POWDER, 4.3 (4.2), II

SECTION 15: REGULATORY INFORMATION.

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

Generally not hazardous for water.

15.2 Chemical safety assessment.

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

Classification codes:

Flam. Sol. 1 : Flammable solid, Category 1

Water-react. 2 : Substances and mixtures, which in contact with water, emit flammable gases, Category 2

Sections changed compared with the previous version: 1,2,3,4,5,6,7,9,11,13,14

-Continued on next page.-

SAFETY DATA SHEET

(in accordance with Regulation (EU) 2015/830)



MAGNESIUM

Version: 10
Revision date: 19/01/2018

Page 9 of 9
Print date: 19/01/2018

7,10

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CEN: European Committee for Standardization.
PPE: Personal protection equipment.
IATA: International Air Transport Association.
ICAO: International Civil Aviation Organization.
IMDG: International Maritime Code for Dangerous Goods.
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.

Key literature references and sources for data:

<http://eur-lex.europa.eu/homepage.html>

<http://echa.europa.eu/>

Regulation (EU) 2015/830.

Regulation (EC) No 1907/2006.

Regulation (EU) No 1272/2008.

The information given in this Safety Data Sheet has been drafted in accordance with COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on 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 Regulation (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.

The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.