

SAFETY DATA SHEET

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

143A-MAGNESSIUM (100 MY) - PF 51

Version: 1

Revision date: 13/11/2019



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Print date: 16/01/2020

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

1.1 Product identifier.

Product Name: MAGNESSIUM (100 MY) - PF 51
Product Code: 143A
Chemical Name: Magnesium or alloys of magnesium powder
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.

Manufacture of matches, pyrotechnics, explosives, oxidant in the chemical industry.

Uses advised against:

Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: **NITROPARIS S. L.**
Address: POL. IND. LA MINA
City: 12520 - NULES
Province: (Castellón) ESPAÑA
Telephone: TEL.+34 964 67 39 27
Fax: +34 964 67 49 84
E-mail: info@nitroparis.com
Web: www.nitroparis.com

1.4 Emergency telephone number: +34 964 67 39 27 (Only available during office hours; Monday-Friday; 08:00-18:00)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance.

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

Flam. Sol. 1 : Flammable solid.

Self-heat. 1 : Self-heating: may catch fire.

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.
H251 Self-heating: may catch fire.
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.
P223 Do not allow contact with water.
P235 Keep cool.
P240 Ground and bond container and receiving equipment.

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P302+P335+P334 IF ON SKIN: Brush off loose particles from skin. Immerse in cool water [or wrap in wet bandages].
P407 Maintain air gap between stacks or pallets.
P413 Store bulk masses greater than ... kg/... lbs at temperatures not exceeding ... °C/...°F.
P420 Store separately.

2.3 Other hazards.

The product may have the following additional risks:

Dustiness.

May form explosible dust-air mixture if dispersed.

The substance reacts with the water

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Chemical Name: Magnesium or alloys of magnesium powder
Index No: 012-002-00-9
EC No: 231-104-6
Registration No: 01-2119537203-49-XXXX

3.2 Mixtures.

Not Applicable.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.

Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.

Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Don't let the person to rub the affected eye.

Skin contact.

Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.

If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

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

No known acute or delayed effects from exposure to the product.

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

In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

SECTION 5: FIREFIGHTING MEASURES.

Flammable product, the necessary prevention measures should be taken in order to avoid risks, In case of fire, the following measures are recommended:

5.1 Extinguishing media.

Suitable extinguishing media:

Use dry extinguishing materials (eg dry sand, fluxes, iron shavings, cement, class D fire extinguisher).

Unsuitable extinguishing media:

Do not use water.

Recommended extinguishing media.

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Special powder for metal fires. Do not use water.
Use fire fighting measures that suit the current environment.
Use dry sand.

Unsuitable extinguishing media.

water

Carbon dioxide, CO₂

ABC powder

foam

5.2 Special hazards arising from the substance.

Special risks.

Risk of explosion / ignition of dust. Avoid dust formation also in case of handling massive objects.

Fire can produce a thick black smoke. As a consequence of the thermal decomposition, dangerous products may be formed: carbon monoxide, carbon dioxide. Exposure to combustion products or decomposition products may be harmful to health.

5.3 Advice for firefighters.

Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways. Follow the instructions given in the emergency or fire evacuation plan or plans if available. Avoid contact with water. Use dry extinguishing materials.

Fire protection equipment.

According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots. During extinction and depending on the magnitude and proximity to the fire, additional protective equipment such as chemical protection gloves, heat-reflecting suits or gas-tight suits may be required.

SECTION 6: ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipment and emergency procedures.

Eliminate possible ignition points and ventilate the area. No smoking. For exposure control and individual protection measures, see section 8.

Keep it away from any possible contact with water, due to a violent reaction and possible fire by flash. Remove fallen particles from the skin.

Eliminate possible ignition and electrostatic charges, ventilate the area. No Smoking. For exposure controls and individual protection measures, see section 8.

6.2 Environmental precautions.

Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.

The contaminated area should be immediately cleaned with an appropriate de-contaminator. Pour the decontaminator on the remains in an opened container and let it act various days until no further reaction is produced.

Avoid dust formation. Pick up the product mechanically dry. Magnesium residues should be recycled as much as possible.

6.4 Reference to other sections.

For exposure control and individual protection measures, see section 8.

For later elimination of waste, follow the recommendations under section 13.

SECTION 7: HANDLING AND STORAGE.

7.1 Precautions for safe handling.

For personal protection, see section 8.

In the application area, smoking, eating, and drinking must be prohibited.

Follow legislation on occupational health and safety.

Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.

Store according to local legislation. Observe indications on the label. Store the containers between 5 and 25° C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.

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The product is not affected by Directive 2012/18/EU (SEVESO III).

Store in a dry place

Store in a closed container

Earth container

Avoid the generation of condensed water due to sudden changes in temperature between different warehouses or stocks or as a consequence of the thermal difference between transport and storage conditions.

7.3 Specific end use(s).

Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.

8.1 Control parameters.

The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

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:	Manufacture of matches, pyrotechnics, explosives, oxidant in the chemical industry.		
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:	P2		
Hand protection:			
PPE:	Work gloves.		
Characteristics:	«CE» marking, category I.		
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.		
Observations:	Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.		
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.		
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.		

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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: Solid granular powder

Colour: grey

Odour: N.A

Odour threshold: N.A

pH: N.A

Melting point: 650 °C

Boiling Point: 1095 °C

Flash point: N.A./N.A.

Evaporation rate: N.A

Inflammability (solid, gas): highly flammable

Lower Explosive Limit: N.A

Upper Explosive Limit: N.A

Vapour pressure: N.A

Vapour density: N.A

Relative density: 1,76

Solubility: Spontaneous reaction with water

Liposolubility: N.A

Hydrosolubility: N.A

Partition coefficient (n-octanol/water): N.A

Auto-ignition temperature: N.A °C

Decomposition temperature: N.A °C

Viscosity: N.A

Explosive properties: non-explosive

Oxidizing properties: non-oxidising properties

N.A./N.A. = Not Available/Not Applicable due to the nature of the product

9.2 Other information.

Dropping point: N.A

Blink: N.A

Kinematic viscosity: 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.

In the course of hydrolysis slowly releases flammable/explosive hydrogen gas. Generation rate is greatly increased with smaller particles.

10.2 Chemical stability.

Under normal conditions of use and storage (closed in original container and under dry conditions) magnesium is stable.

10.3 Possibility of hazardous reactions.

See point 10.1 "Reactivity"

The product will be possibility of hazardous reactions.

Avoid whirling can form dust / air mixtures potentially explosive.

Reacts with halogenated compounds.

Reacts with acids, alkalis, halogens and oxidants.

Under the action of acids and bases is possible to form hydrogen.

In contact with water releases flammable gases.

Dust explosion hazard

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10.4 Conditions to avoid.

Avoid the following conditions:

- High temperature.
- Static discharge.
- Humidity.
- Contact with incompatible materials.
- Contact with water. Keep away from any possible contact with water. Avoid generation of condensed water.
- Avoid temperatures near or above the flash point. Do not heat closed containers. Avoid direct sunlight and heat, as these may cause a risk of fire.

10.5 Incompatible materials.

Avoid the following materials:

- Water.
- Acids.
- Bases.
- Flammable materials.
- Explosives materials.
- Toxic materials.
- Oxidizing materials.

10.6 Hazardous decomposition products.

In contact with water hydrogen is formed which is a highly flammable gas.

SECTION 11: TOXICOLOGICAL INFORMATION.

11.1 Information on toxicological effects.

Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

Splatters in the eyes can cause irritation and reversible damage.

Toxicological information.

Name	Acute toxicity			
	Type	Test	Kind	Value
Magnesium or alloys of magnesium powder	Oral	LD50	rat	>2000 mg/kg [1]
		[1] Magnesium powder is not acutely toxic via the oral route.		
	Dermal			
CAS No: EC No: 231-104-6	Inhalation			

The information provided in this section is consistent with the information provided in the scope of the chemical safety report (CSR). During the development of CSR, all available toxicological data have been considered and evaluated to determine their relevancy and reliability. Lack of reliable data have not been considered in the evaluation.

A) acute toxicity;

Magnesium powder is not toxic acutely or orally, cutaneously or inhalation.

- Oral, rat: (for $MgCl_2 \cdot 6H_2O$) $LD_{50} > 2000$ mg / kg body weight (OECD 423)
- Cutane: Following the HERAG guide for metals and metal salts, an absorption rate in the range of 0.1 - 1.0% may be expected. Dermal absorption in this order of magnitude is not considered to be "significant"
- Inhalation: (for MgO) without acute inhalation toxicity.

B) skin corrosion or irritation;

Based on available data, the classification criteria for irritation are not met.
(For $MgCl$)

- Skin irritation: non-irritant (in vitro study, equivalent or similar to EU Method B.46, reconstructed human epidermis)

C) serious eye damage or eye irritation;

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Based on available data, the classification criteria for irritation
Are not met (for MgCl hexahydrate)

Eye irritation: Non-irritating (OECD 405, rabbit)

D) respiratory or skin sensitization;

Based on the available data, the classification criteria for sensitization are not met. Magnesium alloys (with a total magnesium content between 89.2 - 96.8%).

Skin sensitization: non-sensitizing (OECD 406, GMPT)

E) germ cell mutagenicity;

Based on the available data, the classification criteria for mutagenicity are not met. For various magnesium substances.

(I) Bacterial Reverse Mutation Assay (S. typhimurium, E. coli): (Ames proof; OECD 471) negative

(II) genetic mutation (OECD 476, mouse lymphoma): negative

(Iii) in vitro test of chromosomal aberration of mammals (Chinese hamster Pulmonary fibroblast cell line) (OECD 473): negative

F) carcinogenicity;

On the basis of the available data, the classification criteria for the
are not comply.
(For MgCl)

-Oral, mice, 96 weeks

No evidence of carcinogenic potential was found.

G) reproductive toxicity;

Based on available data, the classification criteria for Toxicity are not met.
Data published by the opinion of the Scientific Committee for Food,
2001 indicated a lack of effects during the ingestion of high amounts of
Magnesium on reproductive function in humans. The information is sufficient for the characterization of the risk.

(H) specific organ-specific toxicity (STOT) - single exposure;

Based on available data, the classification criteria for Exposure are not met.
The classification criteria according to Regulation (EC) 1272/2008 Specific target organ toxicity (STOT) - single exposure, oral,
inhalation are not observed as there are no irreversible or reversible adverse effects on health were observed immediately or
delayed after The exhibition.

(I) specific organ toxicity (STOT) - repeated exposure;

Based on available data, the classification criteria for Exposure are not met.
The only observed effect is that magnesium causes diarrhea if ingested at high doses. According to the Scientific Committee on
Food, 2001 it is assumed that the no-effect level of daily magnesium intake is 250
Mg / day. It is explicitly observed that this value does not include Mg normally present in food and beverages. This effect could be
considered as not "Significant" or "not serious", and does not indicate the existence of
Perturbations or morphological changes of toxicological relevance

J) aspiration hazard;

No danger is expected.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

Name	Ecotoxicity
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	Type	Test	Kind	Value
Magnesium or alloys of magnesium powder CAS No: EC No: 231-104-6	Fish	LC50	Pimephales	541 mg Mg/l (96h) [1]
		LC50	promelas Menidia Beryllina	2800 mg Mg/l (48h) [2]
	Aquatic invertebrates	[1] Reference Mount et al 1997 (No data are available on ecotoxicity of Mg metal. Read-across from Mg SO4 and MgCl2) [2] Referece Dengler 2010a (No data are available on ecotoxicity of Mg metal. Read-across from Mg SO4 and MgCl2)		
		LC50	Daphnia magna	140 mg Mg/ l (48h) [1]
	Aquatic plants	LC50	Mysidopsis bahia	2650 mg Mg/l (48h) [2]
		[1] Reference Pillard et al 2000(No data are available on ecotoxicity of Mg metal. Read-across from Mg SO4 and MgCl2) [2] Dengler 2010a		
		ErC50	Scenedesmus subpicatus	>12 mg Mg/l (72h) [1]
		[1] Reference Biesinger and Christensen 1972 (No data are available on ecotoxicity of Mg metal. Read-across from Mg SO4 and MgCl2)		

12.2 Persistence and degradability.

No information is available regarding the biodegradability.

No information is available on the degradability.No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.

No information is available regarding the bioaccumulation.

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.

12.6 Other adverse effects.

No information is available about other adverse effects for the environment.

SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.

Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation.

Follow the provisions of Directive 2008/98/EC regarding waste management.

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.

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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/IATA: 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.

F-G,S-OLabels: 4.3, 4.2



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):

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.

SECTION 15: REGULATORY INFORMATION.

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

The product is not affected by the Regulation (EC) No 1005/2009 of the European Parliament and of the Council of 16 September 2009 on substances that deplete the ozone layer.

The product is not affected by Directive 2012/18/EU (SEVESO III).

The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.

The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

15.2 Chemical safety assessment.

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

Available Product Exposure Scenario.

SECTION 16: OTHER INFORMATION.

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