



MAGNESIUM NITRATE HEXAHYDRATE

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

1.1 Product identifier

Product name:	Magnesium Nitrate Hexahydrate
CAS Number:	13446-18-9
EC Number:	233-826-7

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

Product use:	Chemical production, analytical chemistry, laboratory synthesis, industrial applications.
Substance uses advised against:	The product should not be used in ways other than those referred in Section 1.

1.3 Details of the supplier of the safety data sheet

Company name:	East Harbour Group Ltd Miranda House, The Quay Harwich, Essex, CO12 3HH United Kingdom
Telephone:	+44 (0) 333 242 0100
Email:	info@eastharbourgroup.com

1.4 Emergency telephone number

Emergency telephone:	0800 246 1274
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Section 2: Hazardous identification

2.1 Classification of the substance or mixture

Classification of the substance in accordance with Regulation (EC) No 1272/2008

The substance is classified as dangerous

Eye Irrit. 2 H319

Full text of all classifications and hazard statements is given in Section 16.

Most serious adverse effects on human health and the environment

Causes serious eye irritation.

2.2 Label elements

Hazard pictogram



Signal word
Dangerous substance

Warning
Magnesium nitrate hexahydrate
EC 233-826-7; CAS 13446-18-9



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Hazard statements

H319

Causes serious eye irritation

Precautionary statements

P305+P351+P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3 Other hazards

The substance does not have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Substance does not meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

Section 3: Composition/information on ingredients

3.1 Substances

Chemical characterisation

The substance specified below.

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
CAS 13446-18-9 EC 233-826-7	Substance main component Magnesium nitrate hexahydrate	>99	Eye irrit. 2, H319	

Full text of all classifications and hazard statements is given in section 16.

Section 4: First aid measures

4.1 Description of first aid measures

Take care of your own safety. If any health problems are manifested or if in doubt, inform a doctor and show the information from this safety data sheet.

If inhaled: Terminate the exposure immediately; move the affected person to fresh air.

If on skin: Remove contaminated clothes. Wash the affected area with plenty of water, lukewarm if possible. Soap, soap solution or shampoo should be used if there is no skin injury. Provide medical treatment if skin irritation persists.

If in eyes: Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. Rinsing should continue for at least 10 minutes. Provide medical treatment, specialised if possible.

If swallowed: Rinse out the mouth with water and provide 2-5dl of water. Provide medical treatment if the person has any health problems.

4.2 Most important symptoms and effects, both acute and delayed

If inhaled: Not expected.

If on skin: Not expected.

If in eyes: Causes serious eye irritation

If swallowed: Irritation, nausea.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.



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Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:

Suitable extinguishing media: Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable extinguishing media: Water – full jet.

5.2 Special hazards arising from the substance or mixture

In the event of fire, carbon monoxide, carbon dioxide and other toxic gases may arise. Inhalation of hazardous degradation (pyrolysis) products may cause serious health damage.

5.3 Advice for firefighters

Self-contained Breathing Apparatus (SCBA) with a chemical protection suit only where personal (close) contact is likely. Use a self-contained breathing apparatus and full-body protective clothing. Do not allow run-off of contaminated fire extinguishing material to enter drains or surface and ground water.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment for work. Follow the instructions in Section 7 and 8. Prevent contact with skin and eyes.

6.2 Environmental precautions

Prevent contamination of the soil and entering surface or ground water.

6.3 Methods and material for containment and cleaning up

Place the product mechanically in an appropriate manner. Dispose of the collected material according to the instructions in Section 13.

6.4 Reference to other sections

See Section 7, 8 and 13.

Section 7: Handling and storage

7.1 Precautions for safe handling

Prevent contact with skin and eyes. Wash hands and exposed parts of the body thoroughly after handling. Use personal protective equipment as per Section 8. Observe valid legal regulations on safety and health protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well-ventilated areas designated for this purpose. Storage class: 13 – Other non-combustible solids

7.3 Specific end use(s)

Not available

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Section 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls /

Do not eat, drink and smoke during work. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection: Protective goggles.

Skin protection

Hand protection: Protective gloves resistant to the product (nitrile rubber). When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Contaminated skin should be washed thoroughly.

Respiratory protection: Respirator.

Thermal hazard: Not available

Environmental exposure controls: Observe usual measures for protection of the environment, see Section 6.2

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Solid
Colour	White
Odour	Without fragrance
Melting point/freezing point	89°C
Boiling point or initial boiling point and boiling range	data not available
Flammability	data not available
Lower and upper explosion limit	data not available
Flash point	data not available
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	5 – 7 (50 g/l% solution at 20°C)
Kinematic viscosity	data not available
Solubility in water	data not available
Solubility in fats	data not available
Partition coefficient n-octanol/water(log value)	data not available
Vapour pressure	data not available
Density and/or relative density	
Density	1,46 g/cm ³
Relative density	data not available

9.2 Other information

Evaporation rate	non-applicable
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Section 10: Stability and Reactivity

10.1 Reactivity

10.2 Chemical Stability

10.3 Possibility of hazardous reactions

10.4 Conditions to avoid

10.5 Incompatible materials

10.6 Hazardous decomposition products

This substance is non-flammable

The product is stable under normal conditions

Unknown

The product is stable, and no degradation occurs under normal use. Protect against flames, sparks, overheating and against frost.

Protect against strong acids, bases and oxidizing agents.

Not developed under normal uses. Dangerous outcomes such as carbon monoxide and carbon dioxide are formed at high temperature and in fire.

Section 11: Toxicological Information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

No toxicological data is available for the substance.

Acute toxicity

Based on available data the classification criteria are not met.

Magnesium nitrate hexahydrate

Route of exposure	Parameter	Value	Exposure time	Species	Sex
Oral	LD50	5 440 mg/kg		Rat	

Skin corrosion/irritation

Based on available data the classification criteria are not met.

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Based on available data the classification criteria are not met.

Reproductive toxicity

Based on available data the classification criteria are not met.

Toxicity for specific target organ – single exposure

Based on available data the classification criteria are not met.

Toxicity for specific target organ – repeated exposure

Based on available data the classification criteria are not met.

Aspiration hazard

Based on available data the classification criteria are not met.

11.2 Information on other hazards

Not available



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Section 12: Ecological Information

12.1 Toxicity

Acute toxicity

12.2 Persistence and degradability

Not available

12.3 Bioaccumulative potential

Not available

12.4 Mobility in soil

Not available

12.5 Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6 Endocrine disrupting properties

This substance does not have endocrine disrupting properties with respect to non-target organisms as it does not meet the criteria set out in section B of Regulation (EU) No 2017/2100.

12.7 Other adverse effects

Not available.

Section 13: Disposal considerations

13.1 Waste treatment methods

Hazard of environmental contamination; dispose of the waste in accordance with the local and/or national regulations. Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialised company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification. Perfectly cleaned containers can be submitted for recycling.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

Section 14: Transport Information

14.1 UN number or ID number

UN 1474

14.2 UN proper shipping name

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14.3 Transport hazard class(es)

5.1 Oxidizing substances

14.4 Packing group

III – Substances presenting low danger

14.5 Environmental hazards

Not relevant

14.6 Special precautions for user

Reference in Sections 4 to 8

14.7 Maritime transport in bulk according to IMO instruments

Not relevant

Additional information

Hazard identification No.

50

UN number

1474

Classification code

O2

Safety signs

5.1



Air transport – ICAO / IATA

Packaging instructions passenger

559

Cargo packaging instructions

563

Marine transport – IMDG

EmS (emergency plan)

F-A, S-Q

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: Regulatory Information

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

Regulation (EU) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulations (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, as amended. Regulation (EC) No.1272/2008 of the European Parliament and of the Council of 16th December 2008 on classification, labelling and packagaing of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, as amended. Product contains reportable



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explosives precursors: Reporting of suspicious transactions, disappearances and thefts according to Regulation (EU) 2019/1148, Article 9.

15.2 Chemical safety assessment

No chemical safety assessment has been performed for this substance.

Section 16: Other Information

A list of standard risk phrases used in the safety data sheet

H319 Causes serious eye irritation

Guidelines for safe handling used in the safety data sheet

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continuing rinsing.

Other important information about human health protection

The product must not be – unless specifically approved by the manufacturer/importer – used for the purposes other than as per Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
ES	Identification code for each substance listed in EINECS
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organisation for Standardisation
IUPAC	International Union of Pure and Applied Chemistry
LD50	Lethal dose of a substance in which it can be expected death of 50% of the population
Log Know	Octanol water partition coefficient
MARPOL	International Convention for the Prevention of Pollution from Ships
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four figure identification number of the substance or article taken from the UN Model Regulations



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UVCB

Substances of unknown or variable composition, complex reaction products or biological materials

VOC

Volatile organic compounds

vPvB

Very Persistent and very Bioaccumulative

Eye Irrit.

Eye irritation

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

Not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.

REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance/mixture, if available – information from registration dossiers.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.