Safety data sheet

according to Regulation (EC) No. 1907/2006

Basic 2 / Magnesium

Version number: GHS 1.0 Date of creation: 07.08.2018

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

1.1 Product identifier

Name of the substance	**Magnesium chloride hexahydrate LM**
Trade name	**Basic 2 / Magnesium**
Registration number (REACH)	Exempted because it is a natural product
EC number	232-094-6
CAS number	7791-18-6
Other designations	
Product number	BMG

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

Relevant identified usesUses by consumers

Magnesium chloride hexahydrate to increase the magnesium content, primarily in seawater aquariums

1.3 Details of the supplier of the safety data sheet

ARKA Biotechnologie GmbH
Mühllach 53-55 90552
Röthenbach Germany

Phone: +49 (0)911 5698610 00
Fax: +49 (0)911 5698610 29
E-mail (knowledgeable person) info@arka-biotech.de

1.4 Emergency number

Emergency information service

ARKA Biotechnology GmbH
Available by phone Mon.-Fri. from 8:00-17:00
Phone: +49 (0)911 5698610 00

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP)

The substance is not classified as hazardous according to Regulation (EC) No 1272/2008.

2.2 Labeling elements

Labeling according to Regulation (EC) No. 1272/2008 (CLP)

The substance is not classified as hazardous according to Regulation (EC) No 1272/2008 [CLP].

2.3 Other dangers

Not subject to labeling. Please observe the information in this safety data sheet.

SECTION 3: Composition/information on ingredients

3.1 Fabrics

Substance name	Magnesium chloride hexahydrate Magnesium chloride
Index no.	not available
Registration number (REACH)	not available
EC number	232-094-6
CAS number	7791-18-6
Purity	≤100 %
Sum formula	MgCl2*6H2O
Molar mass	203 $/^{g}_{mol}$

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes

No special measures required.

After inhalation

Provide fresh air. If symptoms persist, consult a doctor.

After contact with the skin

Wash skin with water/shower. If symptoms persist, consult a doctor.

After contact with the eyes

Keep eyelids open and rinse thoroughly with clean, running water for at least 15 minutes. Remove any contact lenses if possible. Continue rinsing. Consult a doctor.

After ingestion by swallowing

Rinse out mouth. Induce vomiting immediately and consult a doctor .

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Information on immediate medical assistance or special treatment

No information available.

SECTION 5: Fire-fighting measures

5.1 Extinguishing agent

Suitable extinguishing agents

Coordinate extinguishing measures with the surroundings .

Unsuitable extinguishing agents

None.

5.2 Special hazards arising from the substance or mixture

Non-flammable.

Hazardous combustion products

Hydrogen chloride (HCl)

5.3 Instructions for firefighting

Fight the fire with the usual precautions from an appropriate distance. Stay in the danger zone only with self-contained breathing apparatus. Avoid skin contact by keeping a safe distance or wearing suitable protective clothing. Collect contaminated extinguishing water separately. Do not allow extinguishing water to enter sewers and bodies of water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Staff not trained for emergencies

No special ones required.

Emergency services

Respiratory protective equipment must be worn when exposed to vapors, dusts, aerosols and gases. Personal protective equipment: see section 8.

6.2 Environmental protection measures

Prevent penetration into the sewage system or into surface and ground water. Danger to drinking water only possible if very large quantities penetrate into the ground and bodies of water. Inform the authorities.

6.3 Methods and material for retention and cleaning

Instructions on how to prevent spilled materials from spreading

Pick up mechanically. Rinse with plenty of water; treat the absorbed material according to the disposal section.

6.4 Reference to other sections

Safe handling: see section 7

SECTION 7: Handling and storage

7.1 Protective measures for safe handling

Recommendations

Instructions for safe handling:

Avoid contact with skin, eyes and clothing. The usual precautionary measures for handling chemicals must be observed. In addition to the information on personal protective equipment, closed work clothing must be worn. Do not inhale dust. Avoid dust formation.

Information on fire and explosion protection and the fire class:

Non-flammable.

Fire class: B

7.2 Conditions for safe storage, taking into account incompatibilities

Store in a cool and dry place. Very hygroscopic, melts at relative humidity of more than 30%. Solutions may be corrosive. Keep tightly closed.
Storage class according to TRGS 510: 12 - 13
Keep away from food and drink.

Incompatible substances or mixtures

Observe storage instructions.

7.3 Specific end uses

No information available.

SECTION 8: Exposure controls/personal protective equipment

8.1 Parameters to be monitored

Additional information on limit values

Contains no substances with occupational exposure limits

8.2 Exposure controls and monitoring

8.2.1 Protective and hygiene measures

Wash hands before breaks and at the end of work. Do not eat, drink, smoke or sniff while working. Keep away from food, drink and animal feed. Remove soiled, soaked clothing immediately. Do not inhale dust. Avoid contact with skin and eyes.

8.2.2 Individual protective measures (personal protective equipment)

Eye/face protection

Safety goggles in case of heavy dust formation.

Skin protection

Wear light protective clothing. Remove contaminated clothing and wash before reuse.

Hand protection

Rubber gloves for prolonged contact.

Type of material

Nitrile rubber

Material thickness

0.11 mm.

Breakthrough time of the glove material

>480 minutes (permeation level: 6)

Other protective measures

Please observe the information provided by the hemp shoe supplier with regard to permeability and breakthrough time. Also take into account the specific local conditions under which the product is used, such as risk of cuts, abrasion and contact time.

Respiratory protection

Required if dust is present. Suitable particle filter (EN 143): P2 (filters at least 94 % of air particles, color code: white).

8.2.3 Limiting and monitoring environmental exposure

Use suitable containers to avoid contamination of the environment. Prevent penetration into the sewage lization or into surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties Appearance

Physical state	solid (powder or flakes)
color	white
odor	odorless
Other physical and chemical parameters	
pH value (at 20°C)	8.7 10% solution
Melting point/freezing point	118 °C dehydrated from 100°C
Spontaneous combustion	not spontaneously flammable
Flash point	not applicable
Evaporation ratenot	determined
Flammability (solid, gaseous)	not flammable
Explosion limits of dust/air mixtures	not determined
Vapor pressureO	mbar hPa
Density	1.604 g/cm³ at 20 °C
Bulk density	750 g/l
Solubility(ies)	
Water solubility	2.43 g/l at 20 °C
Partition coefficient	
n-octanol/water (log KOW) Auto-ignition	No information available
temperature Viscosity	not determined
Explosive properties	not relevant (solid) none
Oxidizing properties	none

9.2 Other information

No data is available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

No information available.

10.3 Possibility of hazardous reactions

Concentrated sulphuric acid can release hydrogen chloride.

10.4 Conditions to avoid

Humidity.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Classification according to GHS (1272/2008/EC, CLP) Acute toxicity

Exposure path	End point	Value	Species	Source
orally	LD50	8100 mg/kg	Rat	RTECS

Irritant and corrosive effect

Acute skin irritation/corrosion: Mild skin irritation. (OECD404, Rabbit) May cause skin irritation in sensitive individuals.
Acute eye irritation/corrosion: Eye irritation. (OECD405, rabbit) Short-term, reversible irritant effect.

Sensitizing effects

Occasional skin allergy with constant handling.

Carcinogenic, mutagenic and reprotoxic effects

Germ cell mutagenicity: Ames test negative. (in vitro, Bacillus subtilis)

Specific target organ toxicity at single exposure

Based on available data, the classification criteria are not met.

Specific target organ toxicity with repeated exposure.

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Other information

Further hazardous properties cannot be excluded. The usual precautionary measures for handling chemicals must be observed. The usual precautionary measures for handling chemicals must be observed.

SECTION 12: Environmental information

12.1 Toxicity

(Acute) aquatic toxicity

Aquatic toxicity	Dose	Species	Source	Exposure period
Acute fish toxicity	LC50 2.100 mg/l	fat-headed minnow (Pimephales promelas)	anhydrous, ECOTOX	96 h
Acute algal toxicity	ErC50 2,200 mg/l	Green algae (Desmodesmus subspicatus)	anhydrous, IUCLID	72 h
Acute crustacean toxicity	EC50 1,400 /mg/l	Large water flea (Daphnia magna)	anhydrous, ECOTOX	48 h
Acute bacterial toxicity	36300 /mg/l	Photobacterium phosphoreum	anhydrous, IUCLID	0,5 h

12.2 Persistence and degradability

The methods for assessing biodegradability are applicable to inorganic substances.

12.3 Bioaccumulative potential

No data is available.

12.4 Mobility in soil

No data is available.

12.5 Results of the PBT and vPvB assessment

13 No data is available.

13.1 Other harmful effects

AOX: not relevant
MgCl2 is a constituent of seawater.

SECTION 13: Disposal instructions

13.1 Waste treatment processes

Product residues must be disposed of in compliance with the Waste Directive 2008/98/EC and national and regional regulations .

Information relevant for waste treatment

Keep only in the original container. Do not mix with other waste. Recycling/recovery of inorganic materials.

Information relevant for disposal via wastewater

Do not allow to enter drains.

Waste treatment of containers/packaging

This is hazardous waste; only approved packaging (e.g. in accordance with ADR) may be used.
Completely emptied packaging can be recycled.
Contaminated packaging must be treated in the same way as the substance.

Notes

Please observe the relevant national or regional regulations. Waste must be separated in such a way that it can be treated separately by the municipal or national waste disposal facilities.

SECTION 14: Transport information

14.1	**UN number**	No dangerous goods as defined by national and international transport regulations (not subject to transport regulations)
14.2	**UN proper shipping name**	not relevant
14.3	**Transport hazard classes**	
	Class	-
14.4	**Packaging group**	not relevant
14.5	**Environmental hazards**	none (not hazardous to the environment according to dangerous goods regulations)

14.6 Special precautions for the user

No additional information is available.

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

No information available.

SECTION 15: Legislation

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

EU regulations

Additional notes

The substance is not classified as hazardous
according to the regulation (EC) No. 1272/2008
[CLP].

National regulations (Germany)

- **Ordinance on Installations for Handling Substances Hazardous to Water (AwSV)**

Water hazard class (WGK):	1 (slightly hazardous to water) - listed substance (VwVwS)
Identification number	259

- **Storage**

Storage class (LGK):	13 (non-combustible solids)

15.2 Chemical safety assessment

No chemical safety assessment has been carried out for this substance.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of the abbreviations used
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
AGW	Occupational exposure limit
CAS	Chemical Abstracts Service (database of chemical compounds and their unique key, the CAS Registry Number)
CLP	Regulation (EC) No. 1272/2008 on classification, labeling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction (carcinogenic, mutagenic or toxic for reproduction)
DFG	German Research Foundation List of MAK and BAT values, Senate Commission for the Examination of Health Hazardous Substances, Wiley-VCH, Weinheim
DMEL	Derived minimal effect level (derived exposure level with minimal impairment)
DNEL	Derived No-Effect Level (derived exposure level without impairment)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
Index no.	The index number is the identification code given in Part 3 of Annex VI to Regulation (EC) No 1272/2008.
KZW	Short-term value
LGK	Storage class according to TRGS 510, Germany
MARPOL	International Convention for the Prevention of Pollution from Ships (abbreviation of "Marine Pollu- tant")
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration (estimated no-effect concentration)
ppm	Parts per million (parts per million)
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals (Registration, Evaluation, Authorization and Restriction of Chemicals)
SMW	Shift average
TRGS	Technical Rules for Hazardous Substances (Germany)
TRGS 900	Occupational exposure limits (TRGS 900)
VbF	Ordinance on flammable liquids (Austria)
vPvB	Very Persistent and very Bioaccumulative (very persistent and very bioaccumulative)

Important literature and data sources

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU-GHS)

Disclaimer

This information is based on our current state of knowledge. This SDS has been compiled exclusively for this product and is intended solely for this product.