

Dead Sea Magnesium Flakes

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 13/09/2023 Revision date: 13/09/2023 Version: 1.0



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

1.1. Product identifier

Product form : Substance
Substance name : Dead Sea Magnesium Flakes
Chemical name : Magnesium Chloride Hexahydrate
Formula : $MgCl_2 \cdot 6H_2O$

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : Consumer use
Use of the substance/mixture : Cosmetics, personal care products

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer

Numeira Mixed Salts & Mud Co.
Subsidiary Of The Arab Potash Group
Al-Jaheth St 6, Ash Shumaysani
Amman
Jordan
T +962 6 5826889 - F +962 6 5826901
Sales@numeira.com

1.4. Emergency telephone number

Emergency number : + 962 79 5506424

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Cosmetic Product: GHS classification and labelling not applicable. Exempt from classification and labelling as per Article 1(5)(c) of REGULATION (EC) No 1223/2009 (CLP). The substance or mixture does not legally require an SDS. This SDS is provided for information purposes only.

2.2. Label elements

No labelling applicable

2.3. Other hazards

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The substance is not included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : Dead Sea Magnesium Flakes

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Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Magnesium chloride (MgCl ₂), hexahydrate Substance is disclosed for information only	CAS-No.: 7791-18-6 EC-No.: 616-575-1	>= 46	Not classified.
Calcium chloride	CAS-No.: 10043-52-4 EC-No.: 233-140-8 EC Index-No.: 017-013-00-2	<= 2	Acute Tox. 4 (Oral), H302 (ATE=1000 mg/kg bodyweight) Eye Irrit. 2, H319
Potassium chloride Substance is disclosed for information only	CAS-No.: 7447-40-7 EC-No.: 231-211-8	<= 1	Not classified.
Sodium chloride Substance is disclosed for information only	CAS-No.: 7647-14-5 EC-No.: 231-598-3 REACH-no: Exempt	<= 1	Not classified.
Sulfate ion Substance is disclosed for information only	CAS-No.: 14808-79-8 EC-No.: 604-622-9	<= 0.02	Not classified.

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
First-aid measures after skin contact	: None necessary under normal conditions of use. If skin irritation occurs: Wash skin with plenty of water. Obtain medical attention if irritation persists.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

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

Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: Adverse effects not expected from this product. May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Products of combustion may include, and are not limited to: oxides of carbon. Magnesium oxide.
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5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain and/or absorb spill, then place in a suitable container. Minimise generation of dust. Avoid release to the environment. Use appropriate personal protection equipment (PPE).
Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.
Other information : Spilled material may present a slipping hazard.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.
Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Cosmetics, personal care products.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

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8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

None necessary under normal conditions of use. Safety glasses or goggles are recommended when using product.

8.2.2.2. Skin protection

Skin and body protection:

None necessary under normal conditions of use. Wear suitable protective clothing

Hand protection:

None necessary under normal conditions of use. Wear suitable gloves. Consult glove manufacturer's product information on material suitability and material thickness.

8.2.2.3. Respiratory protection

Respiratory protection:

None necessary under normal conditions of use. In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid Flakes.
Colour	: White.
Odour	: Odourless.
Odour threshold	: Not available
Melting point	: > 117 °C
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not flammable
Explosive limits	: Not applicable
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available

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pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Water: Soluble
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not applicable
Relative density	: Not available
Relative vapour density at 20°C	: Not applicable
Particle size	: Not available

Potassium chloride (7447-40-7)

Boiling point	1413 °C (at 1013.25 hPa)
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Sodium chloride (7647-14-5)

Boiling point	1461 °C
Vapour pressure	1 mm Hg (at 865 °C)

Calcium chloride (10043-52-4)

Boiling point	1935 °C (at 1013 hPa)
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9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions. Hygroscopic in the presence of moisture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Moisture.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Hydrochloric acid. Potassium oxides. Oxides of sodium. Magnesium oxide.

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SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified.
Acute toxicity (dermal) : Not classified.
Acute toxicity (inhalation) : Not classified.

Magnesium chloride (MgCl ₂), hexahydrate (7791-18-6)	
LD50 oral rat	8100 mg/kg

Potassium chloride (7447-40-7)	
LD50 oral rat	2600 mg/kg

Sodium chloride (7647-14-5)	
LD50 oral rat	3 g/kg
LD50 dermal rabbit	> 10000 mg/kg bodyweight Animal: rabbit
LC50 inhalation rat	> 42 mg/l (Exposure time: 1 h)

Calcium chloride (10043-52-4)	
LD50 oral rat	1000 mg/kg
LD50 oral	1000 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 5000 mg/kg

Skin corrosion/irritation : Not classified.
Additional information : Based on available data, the classification criteria are not met.

Calcium chloride (10043-52-4)	
pH	8 – 9 (conc: 35 % (solution))

Serious eye damage/irritation : Not classified.
Additional information : Based on available data, the classification criteria are not met.

Calcium chloride (10043-52-4)	
pH	8 – 9 (conc: 35 % (solution))

Respiratory or skin sensitisation : Not classified.
Additional information : Based on available data, the classification criteria are not met.
Germ cell mutagenicity : Not classified.
Additional information : Based on available data, the classification criteria are not met.
Carcinogenicity : Not classified.
Additional information : Based on available data, the classification criteria are not met.

Potassium chloride (7447-40-7)	
NOAEL (chronic, oral, animal/male, 2 years)	≈ 1820 mg/kg bodyweight Animal: rat, Animal sex: male, Remarks on results: other:Effect type: toxicity (migrated information)

Reproductive toxicity : Not classified.
Additional information : Based on available data, the classification criteria are not met.
STOT-single exposure : Not classified.
Additional information : Based on available data, the classification criteria are not met.
STOT-repeated exposure : Not classified.
Additional information : Based on available data, the classification criteria are not met.

Potassium chloride (7447-40-7)	
NOAEL (oral, rat, 90 days)	≈ 1820 mg/kg bodyweight Animal: rat, Animal sex: male

Aspiration hazard : Not classified.
Additional information : Based on available data, the classification criteria are not met.

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11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties

: The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2. Other information

Other information

: Likely routes of exposure: ingestion, inhalation, skin and eye

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

: May cause long-term adverse effects in the aquatic environment.

Hazardous to the aquatic environment, short-term (acute)

: Not classified.

Hazardous to the aquatic environment, long-term (chronic)

: Not classified.

Potassium chloride (7447-40-7)

LC50 - Fish [1]	1060 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
LC50 - Fish [2]	750 – 1020 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 - Crustacea [1]	825 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	83 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 - Other aquatic organisms [1]	440 – 880 mg/l Test organisms (species): other:see below
EC50 - Other aquatic organisms [2]	580 – 670 mg/l Test organisms (species): other:see below
EC50 72h - Algae [1]	2500 mg/l (Species: Desmodesmus subspicatus)

Sodium chloride (7647-14-5)

LC50 - Fish [1]	5560 – 6080 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through])
LC50 - Fish [2]	12946 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	340.7 – 469.2 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LOEC (chronic)	441 mg/l Test organisms (species): Daphnia pulex Duration: '21 d'
NOEC (chronic)	314 mg/l Test organisms (species): Daphnia pulex Duration: '21 d'

Calcium chloride (10043-52-4)

LC50 - Fish [1]	10650 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 - Crustacea [1]	2280000 – 3948000 µg/l (Exposure time: 48 h - Species: Daphnia magna)
LOEC (chronic)	240 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	481 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	230 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '25 d'

12.2. Persistence and degradability

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Persistence and degradability	Not established.
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Calcium chloride (10043-52-4)

Persistence and degradability : Not established.

12.3. Bioaccumulative potential

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Bioaccumulative potential : Not established.

Sodium chloride (7647-14-5)

BCF - Fish [1] : (no bioaccumulation)

Calcium chloride (10043-52-4)

BCF - Fish [1] : (no bioaccumulation)

Bioaccumulative potential : Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

12.7. Other adverse effects

Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR) : Not regulated
UN-No. (IMDG) : Not regulated
UN-No. (IATA) : Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not regulated
Proper Shipping Name (IMDG) : Not regulated
Proper Shipping Name (IATA) : Not regulated

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14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : Not regulated

IMDG

Transport hazard class(es) (IMDG) : Not regulated

IATA

Transport hazard class(es) (IATA) : Not regulated

14.4. Packing group

Packing group (ADR) : Not regulated

Packing group (IMDG) : Not regulated

Packing group (IATA) : Not regulated

14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

No REACH Annex XVII restrictions.

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

Contains substance(s) listed on the REACH Candidate List in concentrations $\geq 0.1\%$ or SCL: Cadmium (EC 231-152-8, CAS 7440-43-9), Lead (EC 231-100-4, CAS 7439-92-1)

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

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Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

Not determined

Ireland

Irish National Regulations : Not determined.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

None.

Abbreviations and acronyms:

°C – Degrees Celsius
°F – Degrees Fahrenheit
ADR – European Agreement concerning the International Carriage of Dangerous Goods by Road.
ACGIH – American Conference of Governmental Industrial Hygienists
ATE – Acute Toxicity Estimate
BCF – Bioconcentration Factor
BEI – Biological Exposure Index
CAS – Chemical Abstracts Service
CLP – Regulation (EC) No 1272/2008 on the Classification, Labeling and Packaging of substances and mixtures.
CMR – Carcinogen, Mutagen, Reproductive toxin
cP – centipoise (unit of dynamic viscosity)
cSt – centistokes (unit of kinematic viscosity)
DNEL – Derived No-effect Level
DMEL – Derived Minimal Effect Level
EC50 – Half maximal effective concentration
ECHA – European Chemicals Agency
EC-No. – European Community number
EU – European Union
GHS – Globally Harmonized System of Classification and Labelling of Chemicals
h – Hours
IATA – International Air Transport Association
IC50 – Inhibition concentration
IDLH – Immediately Dangerous to Life or Health
IMDG – International Maritime Dangerous Goods
IOELV – Indicative Occupational Exposure Limit Value
KIFS – Swedish Chemicals Agency's (KemI's) Code of Statutes
kPa – kilopascal
Koc – Adsorption Coefficient
Kow – Octanol-Water Partition Coefficient
LC50 – Median Lethal Concentration
LD50 – Median Lethal Dose
LOAEL – Lowest Observed Adverse Effect level
mg/l – Milligram per liter
mg/kg – Milligram per kilogram
mg/m ³ – Milligram per cubic meter

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Abbreviations and acronyms:

Min – Minutes
NIOSH – National Institute for Occupational Safety and Health
NOEC – No Observed Effect Concentration
NO(A)EL – No Observed (Adverse) Effect Level
N.O.S. – Not Otherwise Specified
OEL – Occupational Exposure Limit
PBT - Persistent, Bioaccumulative and Toxic
PCN – Poison Centre Notification
PNEC – Predicted No Effect Concentration
ppm – Parts per million
PVC – Polyvinyl chloride
REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID – European Agreement concerning the International Carriage of Dangerous Goods by Rail
SDS – Safety Data Sheet
STEL – Short Term Exposure Limit
STOT – Specific Target Organ Toxicity
SVHC – Substance of Very High Concern (CMR, vPvB, PBT)
TDI – Tolerable Daily Intake
TLV – Threshold Limit Value
TWA – Time Weighted Average
UFI – Unique Formulation Identifier
UN – United Nations
vPvB - Very Persistent and Very Bioaccumulative
WEL – Workplace Exposure Limit
WGK – Wassergefährdungskategorie – German water quality classification

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Prepared by : Nexreg Compliance Inc.
www.Nexreg.com



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