

SAFETY DATA SHEET

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

1.1 Product identifiers

Product name : Magnesium chloride hexahydrate
Product Number : M116331
Brand : aladdin
CAS-No. : 7791-18-6

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

Identified uses : Laboratory chemicals, Manufacture of substances.

1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION
Address : 14078 Meridian Parkway,
Riverside, CA. 92518
Telephone : +1 (833) 552-7181
Fax : no data available

1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300
CHEMTREC®, Outside the USA :

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

2.2 GHS Label elements, including precautionary statements

Pictogram : no data available
Signal word : no data available
Hazard statement(s)
Precautionary statement(s)

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

SECTION 3: Composition/information on ingredients

3.1 Substances

Synonyms	: Magnesium chloride (hexahydrate); magnesium chloride hexahydrate
Formula	: $MgCl_2 \cdot 6H_2O$
Molecular weight	: 203.3
CAS No.	: 7791-18-6
EC-NO.	: 616-575-1

Component	Classification	Concentration
Magnesium chloride hexahydrate		
	no data available	AR

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

In case of skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

In case of eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

If swallowed

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed

no data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

Unsuitable extinguishing media

no data available

5.2 Special hazards arising from the substance or mixture

no data available

5.3 Advice for firefighters

Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information

no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Operators should be specially trained and strictly abide by the operating procedures. Operation and disposal should be carried out in a place with local ventilation or general ventilation facilities. Avoid eye and skin contact and avoid breathing vapor. See Section 8 for personal protective measures. Keep away from fire and heat sources, and smoking is strictly prohibited in the workplace. Use explosion-proof ventilation systems and equipment. If canning is required, the flow rate should be controlled, and there should be a grounding device to prevent the accumulation of static electricity. Avoid contact with incompatible substances such as oxidizing agents (see section 10 for incompatible substances). When handling, it should be lightly loaded and unloaded to prevent damage to packaging and containers. Empty containers may be harmful residues. Wash hands after use and prohibit eating or drinking in the workplace. Equipped with the corresponding variety and quantity of fire fighting equipment and leakage emer

7.2 Conditions for safe storage, including any incompatibilities

Stored in a cool and ventilated warehouse, sensitive to humidity

7.3 Specific end use(s)

no data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU)2016/425 and the standard EN 374 derived from it.

Body Protection

Complete suit protecting against chemicals, Flame retardant antistatic protective clothing., The type of

protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a fullface particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN(EU).

Control of environmental exposure

If safety requires, prevent further leakage or spillage. Do not let the product enter the sewer.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	712°C
f) Initial boiling point and boiling range	1412°C
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	1.569
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available

9.2 Other safety information

no data available

SECTION 10: Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Exposure to moisture may affect product quality

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral - Rat - Female ->5000 mg/kg

(OECD Testing Guideline 423)

Note: (Anhydrous substance)

Corresponding values have been specified for the following substances: halogen powder

Symptom: Mild mucosal irritation

LD50 transdermal - rat - male and female ->2000 mg/kg

(OECD Testing Guideline 402)

Note: (Anhydrous substance)

Corresponding values have been specified for the following substances: halogen powder

Skin corrosion/irritation

Skin in vitro experimental research Result: No skin irritation -15 minutes (Regulation (EC) No. 440/2008, Annex B.46) Note: (Anhydrous substance) Corresponding values have been specified for the following substances: halogen powder. Corresponding values have been specified for the following substances: magnesium chloride hexahydrate

Serious eye damage/eye irritation

Eyes - Rabbit Result: No eye irritation -72 hours (OECD Testing Guideline 405) Note: (Anhydrous substance)

Corresponding values have been specified for the following substances: halogen powder

Respiratory or skin sensitisation

Maximum Response Test - Guinea Pig Result: Negative (OECD Testing Guideline 406) Note: (Anhydrous substance)

Corresponding values have been specified for the following substances: halogen powder

Germ cell mutagenicity

Test type: Mutational (mammalian cell test): Chromosomal mutation negative Testing System: Human Lymphocytes

Metabolic activation: with or without metabolic activation effect Method: OECD Testing Guideline 473 Result:

Negative Note: (Anhydrous substance) Corresponding values have been specified for the following substances:

halogen powder test type: in vitro mammalian cell gene mutation test Testing System: Mouse lymphoma test

Metabolic activation: with or without metabolic activation effect Method: OECD Testing Guidelines 476 Result:

Negative Note: (Anhydrous substance) Corresponding values have been established for the following substances:

carcinogenicity of brine powder

Carcinogenicity

no data available

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Additional Information

Repeated toxicity - rat - male and female - oral -54 days - level with no observed harmful effects ->1000 mg/kg

Note: Subacute toxicity

(Anhydrous substance)

Corresponding values have been specified for the following substances: halogen powder

Registration of Toxic Effects of Chemical Substances: OM2975000

To our knowledge, the chemical, physical, and toxic properties of this substance have not been fully studied.

After taking a large amount:

Inhalation in large quantities may cause metal smoke to become hot

nausea

vomit

diarrhea

System impact:

blood pressure drop

arrhythmia

Muscle relaxation

Symptoms of paralysis

burnout

After extensive absorption:

Cardiovascular disorders

However, when this substance is operated correctly, harmful reactions should not occur

Operate in accordance with good industrial hygiene and safety regulations.

SECTION 12: Ecological information

12.1 Toxicity

Static toxicity test for fish LC50- Pimephales promelas -2119.3 mg/l -96 h (US-EPA) Note: (Anhydrous substance)

Corresponding values have been specified for the following substances: braised powder

Static toxicity test LC50- Daphnia magna -548.4 mg/l -48 h for water fleas and other aquatic invertebrates Remarks: (ECHA) (anhydrous substance) Corresponding values have been specified for the following substances: braised powder

Static toxicity test on algae ErC50- Desmodesmus subspicatus (green algae) ->100 mg/l -72 h (OECD testing guidelines 201)

Static toxicity test for bacteria EC50- Activated sludge ->900 mg/l -3 h (OECD testing guidelines 209)

Toxicity to water fleas and other aquatic invertebrates (chronic toxicity) Semi static test EC10- Daphnia magna -321 mg/l -21 d Remarks: (ECHA)

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

SECTION 13:

13.1 Disposal considerations

Product

Recycle to process, if possible. Consult your local regional authorities and an expert of disposal. You may be able to dissolve or mix material with a combustible solvent and little by little burn in a chemical incinerator equipped with an

afterburner and scrubber system. If a large amount of the substance is burned at a time, an explosion may occur. Observe all federal, state and local regulations when disposing of the substance.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

DOT (US)		
UN number:no data available	Packing group:no data available	Class:no data available
Proper shipping name:no data available	Reportable Quantity(RQ):no data available	Poison Inhalation Hazard:no data available
Environmental Hazards:no data available		
IMDG		
UN number:no data available	Packing group:no data available	EMS-No:no data available
Proper shipping name:no data available		
IATA		
UN number:no data available	Packing group:no data available	Class:no data available
Proper shipping name:no data available		

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

SECTION 16: Other information

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