

**Safety Data Sheet**

For Compliance with OSHA 29 CFR 1910.1200 and ANSI Z400.1-1998

Section 1: Identification

Product Name Magnesium Chloride USP Hexahydrate
Commercial Name N/A
Product Use Infusion solutions, hemodialysis solutions, mineral supplement
Restrictions On Use N/A
Product Code 30-5137
Company PCCA
9901 South Wilcrest
Houston, TX 77099
Phone: 1-800-331-2498
Fax: 1-800-874-5760

In case of emergency contact:
CHEMTREC (24hr) 1-800-424-9300

Section 2: Hazard(s) Identification

OSHA Haz Com: Not available.
CFR 1910.1200
Signal Word NON-HAZARDOUS
Hazard Statement(s) May cause skin irritation, respiratory tract irritation, eye irritation. May cause gastrointestinal irritation.
Pictogram(s) or Symbol(s)

Precautionary Statement(s):

Prevention Not available.
Response Not available.
Storage Not available.
Disposal Not available.

Section 3: Composition/Information on Ingredients

Substance/Mixture Substance
Components Magnesium chloride hexahydrate
% By Weight 99-100%
CAS# 7791-18-6
Molecular Weight 203.30 g/mol
Chemical Formula MgCl₂·6H₂O
Synonym(s) Not available.

Mixtures

Name	CAS#	% by Weight	TLV/PEL	LC50/LD50
Magnesium chloride hexahydrate	7791-18-6	99-101%	N/A	N/A

Section 4: First-Aid Measures

Inhalation	Stop exposition, move the afflicted person to the fresh air, keep him warm and at rest. If symptoms persist seek medical attention. In case of unconsciousness, start with resuscitation (artificial respiration, cardiac massage) and call for medical attention.
Skin Contact	Remove contaminated clothes and footwear. Wash off any skin contamination with cool water and soap. Launder clothes before re-use. In case of persisting irritation, contact physician.
Eye Contact	Remove contact lenses if present. Rinse with a small amount of water for at least 10 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical attention. Do not use neutralization solution!
Ingestion	Wash out mouth with water and give plenty of water to drink (at least 300 ml). Do not induce vomiting. Seek medical attention. When vomiting, maintain supervision until the help arrives. Obtain medical advice if symptoms persist.

Symptoms/Effects

Acute	Skin, airways, or eye irritation. After consumption of a bigger amount, vomiting and diarrhea, alimentary tract irritation may appear. Symptoms: red skin, eyes, blurred vision.
Delayed	Skin, airways, or eye irritation. After consumption of a bigger amount, vomiting and diarrhea, alimentary tract irritation may appear. Symptoms: red skin, eyes, blurred vision.

Immediate Medical Attention

Calcium tartrate treatment partly eliminates the effects of acute toxicity of magnesium. Ventriculou support along with calcium chloride infusion and forced urination by means of mannitol can also be successful.

Section 5: Fire-Fighting Measures**Suitable Extinguishing Media**

Non-combustible substance. All extinguishing media are allowed, select the appropriate extinguishing media depending on the surrounding fire and environment. Accommodate extinguishing components to the location of fire. Alcohol-resistant foam, carbon dioxide, powder, water spray jet, water mist.

Unsuitable Extinguishing Media

Strong water jet.

Products of Combustion

Non-flammable. Upon heating, decomposition occurs with the release of hydrogen chloride or chlorine.

Firefighters Special Equipment and Precautions

Use individual breathing apparatus, anti-gas safety clothing. Self-Contained Breathing Apparatus (SCBA) with chemical resistant gloves. Use a self-contained breathing apparatus and full-body protective clothing.

Section 6: Accidental Release Measures

Personal Precautions: Use personal safety working clothes - section 8. Prevent from skin and eye contact. Do not inhale dust. Well ventilate areas. Prevent from dust making. Other safety precautions - section 7. Environmental Precautions: Prevent from escape to watercourses and soil to and from their contamination. If there is no way to avoid it, immediately inform appropriate authority (police and firemen). Methods For Cleaning Up: Clean contamination/spillages as soon as they occur. Collect as much as possible in a suitable clean container, preferably for re-use, otherwise for disposal (according to section 13). Avoid generation of dust. Wash the spillage area with large quantities of water. When packaging is damaged, replace the amount into a new packaging with proper marking. Other Sections References: Also follow the regulations in sections 8 and 13 of this safety data sheet.

Section 7: Handling and Storage

Handling: Use the personal safety tools (section 8). Ensure fresh water for the first aid. Maintain the cleanness and tidiness on the working area. Provide basic employee training to prevent/minimize exposures and to report any healthy problems that may develop. Do not eat, drink, or smoke during work. Avoid contact with skin and eyes. Wash hands thoroughly with soap and water, take a shower. Use a body lotion. Storage: Store in a dry place, not above normal room temperature. Avoid excessive ventilation as the product can absorb moisture from the air. Magnesium chloride liquors can cause pitting of and corrosion of some grades of stainless steel and under high temperature and stress conditions can promote stress corrosion cracking. Magnesium chloride is highly hygroscopic. Specific uses: Industrial chemical, component of infusion and dialysis solutions and food supplements

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Section 8: Exposure Controls/Personal Protection**Exposure Limits**

1. Workers /consumers Consumers 2. Route of exposure Oral 3. Value 15 mg/kg bw/day 4. Effect Local chronic effects 5. Determining method Calculation of value 6. Source CSR

Engineering Controls

Follow the usual measures intended for health protection at work and especially for good ventilation. Provide showers and eye wash possibility. 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.

Personal Protection

Respiratory protection: In the case of high dust levels wear suitable respiratory protective equipment, ie. dust mask or respirator conforming to EN standards. Recommended filter = particle filter, P2. Hand protection: Wear suitable chemical resistant protective gloves for frequent or prolonged operations tested to EN374 with an acceptable permeation test. Suitable materials include neoprene (chloroprene), PVC, and nitrile rubber. Break through time is >480 min. Contaminated gloves should be carefully rinsed with water before reuse. Non suitable materials: leather gloves. Eye/face protection: Wear suitable eye/face protection. Most materials for protective goggles and face visors will probably be suitable eg. polycarbonate. Skin and body protection: Normal working clothes is suitable. Do not eat, drink, or smoke during work. Immediately remove contaminated clothing. Wash hands duly with soap and water, take a shower. Use a body lotion.

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Section 9: Physical and Chemical Properties

Appearance	Solid - crystals. Colorless up to white	pH	5.5-7.0 (5% solution at 20°C)
Odor	Odorless	Vapor Pressure	Irrelevant
Odor Threshold	Odorless	Vapor Density	Irrelevant
Melting Point	117.2°C	Viscosity	Not applicable.
Freezing Point	N/A	Evaporation Rate	Not applicable.
Boiling Point/Range	160°C	Autoignition temperature	Not applicable.
Decomposition temperature	135°C	Flammability or Explosive Limits:	
Partition Coefficient: n-octanol/water	Not available.	Lower	Not available, non-explosive matter.
Flash Point	Not applicable, incombustible	Upper	Not available, non-explosive matter.
Flammability	The substance is non-flamm:		
Solubility(ies)	Water: 164g/100ml		
Other	Explosive properties: The substance is non-explosive. Oxidizing properties: The substance is non-oxidizing. Solubility in solvents: N/A Fat solubility: N/A Conductivity: N/A Gas group: N/A		

Section 10: Stability and Reactivity

Reactivity	N/A
Chemical Stability	Stable under recommended storage and handling conditions. Strong oxidizing agents generate chloride.
Hazardous Polymerization	N/A
Conditions to Avoid	Humidity and moisture
Incompatible Materials	Strong oxidizing agents, releasing chloride.
Hazardous Decomposition Products	None at normal use. Irritant or toxic gases can be generated at higher temperature (HCl over 135°C, chlorine over 300°C). Generates dangerous gases or fumes in contact with metals, zinc (generation of hydrogen).

Section 11: Toxicological Information

RTECS	N/A
Acute Toxicity	LD50 Oral, rat (mg.kg-1): 8100 (mouse 4700) LD50 Dermal, rabbit (mg.kg-1): >2000 LC50 Inhalation, rat, for aerosols or particles (mg.kg-1): Not specified
Skin Corrosion/Irritation	No irritation.
Serious Eye Damage/Irritation	Can cause eye irritation.
Respiratory or Skin Sensitization	Substance does not have sensitive effects on skin and respiratory system.
Germ Cell Mutagenicity	Not mutagenic substance.
Carcinogenicity	Not carcinogenic substance.
Reproductive Toxicity	Not toxic substance for reproduction.

Routes of Entry

N/A

Symptoms Related to Exposure

Substance does not have toxic effects within single exposition or repeated exposition.

Potential Health Effects

Substance does not have irritable effects if inhaled.

Target Organ(s)

N/A

Section 12: Ecological Information**Ecotoxicity**

LC50 96 hr., fish (mg.l-1): 2 119 EC 50 48 hr., daphnia (mg.l-1): 548 EC50 72 hr., algae (mg.l-1): 100

Persistence and Degradability

Not specified (not relevant for inorganic substances).

Bioaccumulative Potential

Not specified.

Mobility in Soil

Not specified.

Other Adverse Effects

Not specified. Substance is not classified as PBT or vPvB.

Section 13: Disposal Considerations**Waste Disposal**

Product: If recycling or reuse is not practical, then the product must be disposed of by authorized personnel in accordance with local, state, or national regulations. Never dispose of anything by flushing into the drainage. Waste former is responsible for its sorting and disposal. Special safety precaution for recommended waste treatment: Preferably dispose in independent container. Do not dispose with acids. Packaging: If recycling or reuse is not practical, then the product must be disposed of by authorized personnel in accordance with local, state, or national regulations. Clean packaging with water and dispose of washings in accordance to local regulations. Packaging can be passed to a packaging return system after the cleaning. Legal waste regulations: Directive 2008/98/ES

Disposal of Container

N/A

Other Considerations

N/A

Section 14: Transport Information**DOT Classification**

ADR/RID (Land Transport): Not classified as hazardous for transportation. ADN/ADNR (Inland Waterway Transport): Not classified as hazardous for transportation. IMDG (Marine Transport): Not classified as hazardous for transportation. ICAO/IATA (Air Transport): Not classified as hazardous for transportation.

Section 15: Regulatory Information**Regulations**

Health, safety, and environmental information on the label: -- Chemical Safety Assessment: Chemical safety report (CSR) has been carried out for the substance. National Regulation: - Regulation (EC) No. 1907/2006/ES, REACH - Regulation (EC) No. 1272/2008/ES, CLP National laws or provisions may be in force.

Other

N/A

Section 16: Other Information

Changes made in Safety Data Sheet in terms of revision: Revision of safety data sheet in terms of avoidance of Directive 67?548/EHS. Key or Explanation for Abbreviations: DNEL - Derived No Effect Level (derived concentration of substance, at which no unfavorable effects occur) PNEC - Predicted No Effect Concentration (prediction of substance concentration, at which no unfavorable effects occur) PEL - Acceptable Exposure Limit, long ter, (8 hours) CSR - Chemical Safety Report Important Literature References and Data Sources: CSR, elaborated in terms of registration process in accordance with REACH regulation, special literature. Training instructions: According to Safety Data Sheet. Recommended restrictions of use: Not Specified. Other: The information container herin were processed and compiled in accordance with the latest state-of-the-art. Although having been compiled in an utmost good faith, they do not deliver or guarantee any of the product properties, thus thye cannot constitute an official base for any contract or legal relation. Various factors may affect the propeties uder certain conditions. It is the user's sole responsibility to assess and consider the accuracy and veracity of the above-indicated information in particular application and/or environment.