

# MATERIAL SAFETY DATA SHEET



## Magnesium Chloride 51% w/v Solution

### SECTION 1 . Product and Company Identification

Product Name and Synonym: Magnesium Chloride 51% w/v Solution  
Product Code: BDH3899  
Material Uses:  
Manufacturer: Aqua Solutions, Inc  
6913 Hwy 225  
Deer Park, TX 77536  
(281) 479-2569  
Entry Date : 12/18/2009  
Print Date: 7/21/2010  
24 Hour Emergency Assistance : Chemtrec 800-424-9300  
Canutec 613-996-6666

Health:	1			
Flammability:	0			
Reactivity:	0			
Hazard Rating:				
Least	Slight	Moderate	High	Extreme
0	1	2	3	4
NA = Not Applicable		NE = Not Established		

### SECTION 2 HAZARD IDENTIFICATION

MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE IRRITATING ON CONTACT WITH MUCOUS MEMBRANES. Avoid contact with skin and clothing. Wash thoroughly after handling.

Physical state: Liquid

OSHA/HCS status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Emergency overview:

CAUTION!

MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION  
MAY BE IRRITATING ON CONTACT WITH MUCOUS MEMBRANES

Avoid contact skin and clothing. Avoid breathing vapor or mist. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

Routes of entry: Inhalation. Ingestion

Potential acute health effects:

Eyes: Moderately irritating to eyes

Skin: Moderately irritating to the skin

Inhalation: Moderately irritating to the respiratory system

Ingestion: No known significant effects or critical hazards

Carcinogenic effects: No known significant effects or critical hazards

Mutagenic effects: No known significant effects or critical hazards

Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards

Medical conditions aggravated by over-exposure: Repeated skin exposure can produce local skin destruction or dermatitis. Repeated or prolonged exposure to the substance can produce lung damage. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation.

See toxicological information (section 11).

### SECTION 3 MIXTURE COMPONENTS

## Magnesium Chloride 51% w/v Solution

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Magnesium Chloride Hexahydrate	CAS# 7791-18-6	51%	W/W	TXDS: ori-rat LD <sub>50</sub> : 8100 mg/Kg
<input type="checkbox"/>	Water, Deionized ASTM Type II	CAS# 7732-18-5	Balance	W/W	None Established

### SECTION 4 FIRST AID MEASURES

MAY CAUSE RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE IRRITATING ON CONTACT WITH MUCOUS MEMBRANES. Avoid contact with skin and clothing. Wash thoroughly after handling.

FIRST AID: SKIN: Remove contaminated clothing. Wash exposed area with soap and water. If irritation persists, seek medical attention.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: Get medical attention if symptoms occur. Wash out mouth with water. Move exposed person to fresh air. If exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel

Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training.

### SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type:	Any means suitable for extinguishing surrounding fire
Fire / Explosion Hazards:	Negligible fire hazard when exposed to heat or flame
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

### SECTION 6 ACCIDENTAL RELEASE MEASURES

Absorb spill with inert material, then place in a chemical waste container. Dispose of in a manner consistent with federal, local law.

Personal precautions: Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.

Environmental precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Methods for cleaning up: If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

### SECTION 7 HANDLING AND STORAGE

Avoid contact with eyes, skin and clothing. Store away from incompatible materials. Keep container tightly closed. Store in a cool, dry, ventilated area.

### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection:	None required
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Ventilation

Local Exhaust

Mechanical

Protective Gloves:

Gloves to prevent skin exposure as rubber or vinyl

Eye Protection:

Splash Goggles

Other Protective Equipment:

Wear appropriate clothing to prevent skin exposure

Consult local authorities for acceptable exposure limits.

Engineering measures: No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

Personal Protection

Eyes: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

Recommended: splash goggles

Skin: Personal protective equipment for the body should be selected based on the task being performed and risks involved and should be approved by a specialist before handling this product.

Body recommended: lab coat and gloves

Respiratory: None required.

Hands: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Melting Point:	not available	Percent Volatile by Volume:	49%
Boiling Point:	not available	Evaporation Rate	0
Vapor Pressure:	not available	Evaporation Standard	
Vapor Density:	not available	Auto Ignition Temp	Not applicable
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	Not applicable
Appearance /Odors:	Clear odorless liquid	Upper Flamm. Limit in Air	Not applicable
Flash Point:	not flammable		
Specific Gravity:	not available		

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**SECTION 10 STABILITY AND REACTIVITY INFORMATION**

Stability:	Stable
Conditions to Avoid:	None known
Materials to Avoid:	Acids
Hazardous Decomposition Products:	Toxic and corrosive fumes of chlorine
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

**SECTION 11 Toxicological Information**

Toxicity data

Other toxic effects on humans:  
Hazardous in case of skin contact (irritant) of eye contact (irritant), of ingestion, of inhalation (lung irritant).

Specific effects

Carcinogenic effects: No known significant effects or critical hazards  
Mutagenic effects: No known significant effects or critical hazards  
Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards

Sensitization

Ingestion: No known significant effects or critical hazards  
Inhalation: Moderately irritating to the respiratory system  
Eyes: Moderately irritating to eyes  
Skin: Moderately irritating to the skin

**SECTION 12 Ecological Information**

Environmental precautions: No known significant effects or critical hazards.

Products of degradation: These products are halogenated compounds. Some metallic oxides.

Toxicity of the products of biodegradation: The products of degradation are more toxic than the product itself.

**SECTION 13 Disposal Considerations**

Waste disposal: The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains, and sewers. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

**SECTION 14 Transport Information**

DOT Classification: Not Regulated

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

**SECTION 15 Regulatory Information**

United States

HCS Classification:

Irritating material

U.S. Federal regulations: TSCA 8(b) inventory. Listed

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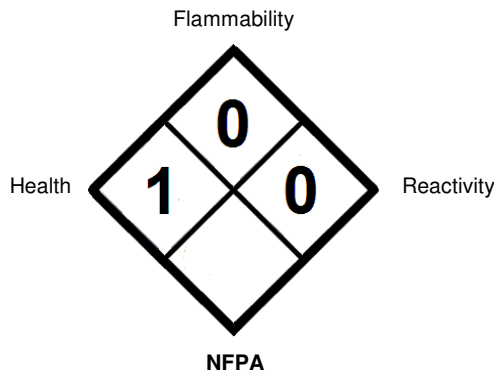
SARA 302/304/311/312 extremely hazardous substances: No products were found  
SARA 302/304 emergency planning and notification: No products were found  
SARA 302/304/311/312 hazardous chemicals: Magnesium Chloride  
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Magnesium Chloride: Immediate (acute) health hazard  
Clean Water Act (CWA) 307: No products were found  
Clean Water Act (CWA) 311: No products were found  
Clean Air Act (CAA) 112 accidental release prevention: No products were found  
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.  
Clean Air Act (CAA) 112 regulated toxic substances: No products were found

State regulations: New Jersey: Magnesium Chloride Reagent, 51%

Canada  
WHMIS (Canada): Not controlled under WHMIS (Canada).  
CEPA DSL/CEPA NDSL: CEPA DSL: Water

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

**SECTION 16 Additional Information**



**Revisions**

7/20/2010	0	Review date for MSDS. STN
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