according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

1 Identification
· Product identifier
 Trade name: <u>Magnesium Chloride 0.1M</u> Product code: MG2000SS
 Recommended use and restriction on use Recommended use: Laboratory chemicals Restrictions on use: No relevant information available.
 Details of the supplier of the Safety Data Sheet Manufacturer/Supplier: AquaPhoenix Scientific, Inc. 860 Gitts Run Road Hanover, PA 17331 USA Tel +1 (717)632-1291 Toll-Free: (866)632-1291 info@aquaphoenixsci.com Distributor: AquaPhoenix Scientific 860 Gitts Run Road, Hanover, PA 17331 (717) 632-1291
 Emergency telephone number: ChemTel Inc. (800)255-3924 (North America) +1 (813)248-0585 (International)
2 Hazard(s) identification

The product is not classified as hazardous according to the Globally Harmonized System (GHS).

[·] Label elements

· GHS label elements None.

· Hazard pictograms: None.

· Signal word:

None.

None.

· Hazard statements: None.

· Precautionary statements: None.

• Other hazards There are no other hazards not otherwise classified that have been identified.

.		
Chemical	characterization: Mixtures	
Compone	its:	
7732-18-5	Water	97.97%
7796 20 2	magnesium chloride	2.03%

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. (Cont'd. on page 2)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

(Cont'd. of page 1)

Trade name: Magnesium Chloride 0.1M

For the wording of the listed Hazard Statements, refer to section 16.

4 First-aid measures

- [•] Description of first aid measures
- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.

• After skin contact:

Rinse with warm water.

If skin irritation is experienced, consult a doctor.

- After eye contact:
- Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

• After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

Most important symptoms and effects, both acute and delayed:

Gastric or intestinal disorders when ingested.

Diarrhea.

- · Danger: No relevant information available.
- Indication of any immediate medical attention and special treatment needed:
- If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

- [•] Extinguishing media
- Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- For safety reasons unsuitable extinguishing agents: No relevant information available.
- Special hazards arising from the substance or mixture
- Formation of toxic gases is possible during heating or in case of fire.
- Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

• **Personal precautions, protective equipment and emergency procedures** Ensure adequate ventilation.

[•] Environmental precautions

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose of the collected material according to regulations.

Reference to other sections

See Section 7 for information on safe handling.

(Cont'd. on page 3)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Magnesium Chloride 0.1M

(Cont'd. of page 2)

See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 Handling and storage

· Handling

• Precautions for safe handling:

Avoid splashes or spray in enclosed areas.

Prevent formation of aerosols.

· Information about protection against explosions and fires: No special measures required.

· Conditions for safe storage, including any incompatibilities

- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Store away from foodstuffs.

• Further information about storage conditions:

Keep containers tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

• Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

Control parameters

· Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

• Exposure controls

· General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

- Engineering controls: No relevant information available.
- · Breathing equipment: Not required under normal conditions of use.
- · Protection of hands: Gloves not required under normal conditions of use.
- Material of gloves

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Natural rubber, NR

Neoprene gloves

Nitrile rubber, NBR

Sensibilization by the components in the glove materials is possible.

Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

- · Body protection: Protective work clothing
- Limitation and supervision of exposure into the environment No special requirements.
- · Risk management measures No special requirements.

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Magnesium Chloride 0.1M

(Cont'd. of page 3)

9 Physical and chemical prope	rties
Information on basic physical a	nd chemical properties
· Appearance:	
Form:	Liquid
Color:	Colorless
· Odor:	Odorless
· Odor threshold:	Not determined.
· pH-value:	Not determined.
• Melting point/Melting range:	0 °C (32 °F)
Boiling point/Boiling range:	100-102 °C (212-151.6 °F)
· Flash point:	The product is not flammable.
· Flammability (solid, gaseous):	Not determined.
· Auto-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
 Oxidizing properties: 	Not determined.
· Vapor pressure:	Not determined.
· Density:	
Relative density:	Not determined.
Vapor density:	Not determined.
Evaporation rate:	Not determined.
 Solubility in / Miscibility with 	
Water:	Fully miscible.
· Partition coefficient (n-octanol/wat	er): Not determined.
·Viscosity	
Dynamic:	Not determined.
Kinematic:	Not determined.
[•] Other information	No relevant information available.

10 Stability and reactivity

• **Reactivity:** No relevant information available.

• Chemical stability: Stable under normal temperatures and pressures.

Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Possibility of hazardous reactions

Toxic fumes may be released if heated above the decomposition point.

· Conditions to avoid Excessive heat.

(Cont'd. on page 5)

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Magnesium Chloride 0.1M	
· Incompatible materials Oxidizers, strong bases, strong acids	(Cont'd. of page 4)

Incompatible materials Oxidizers, strong bases, strong acids Hazardous decomposition products Chlorine

	formation on toxicological effects cute toxicity: Based on available data, the classification criteria are not met.
L	D/LC50 values that are relevant for classification:
77	786-30-3 magnesium chloride
0	ral LD50 2800 mg/kg (rat)
P	rimary irritant effect:
0	n the skin: Based on available data, the classification criteria are not met.
	n the eye: Based on available data, the classification criteria are not met.
S	ensitization: Based on available data, the classification criteria are not met.
	RC (International Agency for Research on Cancer):
N	one of the ingredients are listed.
N	TP (National Toxicology Program):
N	one of the ingredients are listed.
0	SHA-Ca (Occupational Safety & Health Administration):
N	one of the ingredients are listed.
	robable route(s) of exposure:
	gestion.
	halation.
	ye contact.
	kin contact.
	cute effects (acute toxicity, irritation and corrosivity): No relevant information available. epeated dose toxicity: No relevant information available.
	erm cell mutagenicity: Based on available data, the classification criteria are not met.
	arcinogenicity: Based on available data, the classification criteria are not met.
	eproductive toxicity: Based on available data, the classification criteria are not met.
	TOT-single exposure: Based on available data, the classification criteria are not met.
	TOT-repeated exposure: Based on available data, the classification criteria are not met.

12 Ecological information

- [·] Toxicity
- · Aquatic toxicity No relevant information available.
- Persistence and degradability No relevant information available.
- · Bioaccumulative potential: No relevant information available.
- Mobility in soil: No relevant information available.
- [•] Additional ecological information
- · General notes: Generally not hazardous for water.
- · Other adverse effects No relevant information available.

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

Trade name: Magnesium Chloride 0.1M

(Cont'd. of page 5)

13 Disposal considerations

[•] Waste treatment methods

· Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

[·] Uncleaned packagings

• Recommendation: Disposal must be made according to official regulations.

• Recommended cleansing agent: Water, if necessary with cleansing agents.

UN-Number DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
UN proper shipping name DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
Transport hazard class(es)		
DOT, ADR/RID/ADN, IMDG, IATA Class	Not regulated.	
Packing group DOT, ADR/RID/ADN, IMDG, IATA	Not regulated.	
Environmental hazards	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	Il of Not applicable.	

15 Regulatory information Safety, health and environmental regulations/legislation specific for the substance or mixture United States (USA) SARA Section 302 (extremely hazardous substances): None of the ingredients are listed. Section 313 (Specific toxic chemical listings): None of the ingredients are listed. TSCA (Toxic Substances Control Act) 7732-18-5 Water

Safety Data Sheet according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: August 22, 2020

ade name: M	gnesium Chloride 0.1M
	(Cont'd. of page
· Proposition	5 (California)
· Chemicals k	own to cause cancer:
None of the in	gredients are listed.
· Chemicals k	own to cause developmental toxicity for females:
None of the in	gredients are listed.
· Chemicals k	own to cause developmental toxicity for males:
None of the i	gredients are listed.
· Chemicals k	own to cause developmental toxicity:
	gredients are listed.
· EPA (Enviro	mental Protection Agency):
•	gredients are listed.
	tional Agency for Research on Cancer):
•	gredients are listed.
	mestic Substances List (DSL):
	listed on DSL or NDSL.
This informat	
This informat specific production • Abbreviation ADR: European IMDG: Internation	on is based on our present knowledge. However, this shall not constitute a guarantee for a ct features and shall not establish a legally valid contractual relationship. s and acronyms: greement concerning the International Carriage of Dangerous Goods by Road al Maritime Code for Dangerous Goods
This informat specific produ- • Abbreviation ADR: European IMDG: Internation DOT: US Depart IATA: Internation CAS: Chemical LC50: Lethal con	on is based on our present knowledge. However, this shall not constitute a guarantee for an ct features and shall not establish a legally valid contractual relationship. s and acronyms: greement concerning the International Carriage of Dangerous Goods by Road al Maritime Code for Dangerous Goods nent of Transportation al Air Transport Association bstracts Service (division of the American Chemical Society) centration, 50 percent
This informat specific produ- • Abbreviation ADR: European IMDG: Internation DOT: US Depart IATA: Internation CAS: Chemical LC50: Lethal con LD50: Lethal dos	on is based on our present knowledge. However, this shall not constitute a guarantee for an ct features and shall not establish a legally valid contractual relationship. s and acronyms: greement concerning the International Carriage of Dangerous Goods by Road al Maritime Code for Dangerous Goods nent of Transportation al Air Transport Association bstracts Service (division of the American Chemical Society) centration, 50 percent e, 50 percent
This informat specific produ- ADR: European IMDG: Internatio DOT: US Depart IATA: Internation CAS: Chemical LC50: Lethal con LD50: Lethal dos OSHA: Occupat	on is based on our present knowledge. However, this shall not constitute a guarantee for an ct features and shall not establish a legally valid contractual relationship. s and acronyms: greement concerning the International Carriage of Dangerous Goods by Road al Maritime Code for Dangerous Goods nent of Transportation al Air Transport Association bstracts Service (division of the American Chemical Society) centration, 50 percent e, 50 percent anal Safety & Health Administration
This informat specific produ- • Abbreviation ADR: European IMDG: Internation DOT: US Depart IATA: Internation CAS: Chemical LC50: Lethal con LD50: Lethal doo OSHA: Occupat • Sources Website, Eur Website, US	on is based on our present knowledge. However, this shall not constitute a guarantee for a ct features and shall not establish a legally valid contractual relationship. s and acronyms: greement concerning the International Carriage of Dangerous Goods by Road al Maritime Code for Dangerous Goods nent of Transportation al Air Transport Association bstracts Service (division of the American Chemical Society) centration, 50 percent a, 50 percent anal Safety & Health Administration pean Chemicals Agency (echa.europa.eu) EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/hom
This informat specific produ- ADR: European IMDG: Internation DOT: US Depart IATA: Internation CAS: Chemical LC50: Lethal do: OSHA: Occupat Sources Website, Eur Website, US overview/hon Website, Che Patty's Indust	on is based on our present knowledge. However, this shall not constitute a guarantee for all ct features and shall not establish a legally valid contractual relationship. s and acronyms: greement concerning the International Carriage of Dangerous Goods by Road al Maritime Code for Dangerous Goods nent of Transportation al Air Transport Association bstracts Service (division of the American Chemical Society) centration, 50 percent e, 50 percent anal Safety & Health Administration pean Chemicals Agency (echa.europa.eu) EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/hom e.do) mical Abstracts Registry, American Chemical Society (www.cas.org) ial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6
This informat specific produ- specific produ- ADR: European IMDG: Internation DOT: US Depart IATA: Internation CAS: Chemical LC50: Lethal do: OSHA: Occupat Sources Website, Eur Website, US overview/hon Website, Che Patty's Indust Casarett and 978-0-07-176	on is based on our present knowledge. However, this shall not constitute a guarantee for an ct features and shall not establish a legally valid contractual relationship. s and acronyms: greement concerning the International Carriage of Dangerous Goods by Road ial Maritime Code for Dangerous Goods nent of Transportation al Air Transport Association bstracts Service (division of the American Chemical Society) centration, 50 percent e, 50 percent innal Safety & Health Administration pean Chemicals Agency (echa.europa.eu) EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/hom e.do) mical Abstracts Registry, American Chemical Society (www.cas.org) ial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBI
This informat specific produ- specific produ- ADR: European IMDG: Internation DOT: US Depart IATA: Internation CAS: Chemical LC50: Lethal do: OSHA: Occupat Sources Website, Eur Website, US overview/hon Website, Che Patty's Indust Casarett and 978-0-07-176	on is based on our present knowledge. However, this shall not constitute a guarantee for an ct features and shall not establish a legally valid contractual relationship. S and acronyms: greement concerning the International Carriage of Dangerous Goods by Road al Maritime Code for Dangerous Goods nent of Transportation al Air Transport Association bstracts Service (division of the American Chemical Society) centration, 50 percent a, 50 percent anal Safety & Health Administration pean Chemicals Agency (echa.europa.eu) EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/hom e.do) mical Abstracts Registry, American Chemical Society (www.cas.org) ial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBI 023-5. heets, Individual Manufacturers
specific produ • Abbreviation ADR: European IMDG: Internation DOT: US Depart IATA: Internation CAS: Chemical LC50: Lethal dos OSHA: Occupat • Sources Website, Eur Website, US overview/hon Website, Che Patty's Indust Casarett and 978-0-07-176 Safety Data S SDS Prepare ChemTel 1305 North F	on is based on our present knowledge. However, this shall not constitute a guarantee for an ct features and shall not establish a legally valid contractual relationship. s and acronyms: Igreement concerning the International Carriage of Dangerous Goods by Road al Maritime Code for Dangerous Goods nent of Transport Association batracts Service (division of the American Chemical Society) pentration, 50 percent a, 50 percent anal Safety & Health Administration pean Chemicals Agency (echa.europa.eu) EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/hom e.do) nical Abstracts Registry, American Chemical Society (www.cas.org) ial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBI 023-5. heets, Individual Manufacturers I by: brida Avenue
This informat specific produ- Abbreviation ADR: European IMDG: Internation CAS: Chemical LC50: Lethal con LD50: Lethal do: OSHA: Occupat Sources Website, Eur Website, US overview/hon Website, Che Patty's Indust Casarett and 978-0-07-176 Safety Data S SDS Prepare ChemTel 1305 North F Tampa, Florid	on is based on our present knowledge. However, this shall not constitute a guarantee for an ct features and shall not establish a legally valid contractual relationship. s and acronyms: greement concerning the International Carriage of Dangerous Goods by Road al Maritime Code for Dangerous Goods nent of Transportation al Air Transport Association bstracts Service (division of the American Chemical Society) bentration, 50 percent a, 50 percent mal Safety & Health Administration pean Chemicals Agency (echa.europa.eu) EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/hom e.do) mical Abstracts Registry, American Chemical Society (www.cas.org) ial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6 Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBI 023-5. heets, Individual Manufacturers I by: