



SAFETY DATA SHEET

Issue Date 17-February 2015

Revision Date 17-February 2015

Version 1

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product identifier

Product Name Magnesium Sulfate, 20-27% Aqueous Solution.

Other means of identification

Product Code Magnesium Sulfate 20-27% Aqueous Solution

Synonyms

Recommended use of the chemical and restrictions on use

Recommended Use Industrial Applications

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

Giles Chemical, 102 Commerce Street, Waynesville, NC 28786

Emergency telephone number

Company Phone Number 828-452-4784

24 Hour Emergency Phone Number Chemtrec 1-800-424-9300

Emergency Telephone Chemtrec 1-800-424-9300

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

Colorless or transparent liquid. Noncombustable. At very high temperatures, magnesium oxide, sulfur dioxide and sulfur trioxide may be generated. No known chronic hazards. Not listed by NTP, IARC or OSHA as a carcinogen.

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS).

Label elements

Emergency Overview

The product contains no substances which at their given concentration, are considered to be hazardous to health

Appearance Colorless/Transparent **Physical state** Liquid **Odor** None

Causes mild irritation to the eyes

No known adverse effects.

Causes nausea, vomiting, abdominal cramps and diarrhea.

Spilled material can be slippery.

Hazards not otherwise classified (HNOC)

Other Information

Unknown Acute Toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms Magnesium sulfate 20-27% Aqueous Solution

Chemical Name	CAS No.	Weight-%	Trade Secret
Magnesium Sulfate	7487-88-9	20-27	
Water	7732-18-5	80-73%	

4. FIRST AID MEASURES**First aid measures**

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. (Call a physician if irritation persists).

Skin Contact Not Applicable.

Inhalation Remove to fresh air. Administer oxygen if breathing is difficult. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Ingestion If large quantities of this material are swallowed, call a physician immediately. Do NOT induce vomiting unless directed to do so by a physician. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

This material is compatible with all extinguishing media.

Unsuitable extinguishing media None.

Specific hazards arising from the chemical

See Section 2 for information on hazards when this material is present in the area of a fire.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal precautions Wear goggles. See Section 8.

Environmental precautions

Environmental precautions Sinks and mixes with water. No adverse effects known.

Methods and material for containment and cleaning up

Methods for containment Prevent further leakage or spillage if safe to do so.

Methods for cleaning up Mop up spilt liquid. Flush residue with water.

Prevention of secondary hazards For large spill cleanup: Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Stop leak if you can do so without risk. Prevent runoff from entering into storm sewers and ditches which lead to natural waterways. Isolate, dike and store discharged material, if possible. Use sand or earth to contain spilled material. If containment is impossible, flush with large quantities of water. Observe environmental regulations.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling Avoid breathing dust. Promptly clean up spills.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers closed and protected from extremes of temperature and humidity during storage. Recommended storage conditions 68-110°F and 54-87% relative humidity.

Incompatible materials Metal hydrides and other water reactive materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Control parameters**

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Appropriate engineering controls

Engineering Controls Ensure adequate ventilation, especially in confined areas. Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear chemical goggles.

Skin and body protection Wear gloves if abrasion or irritation occurs.

Respiratory protection Provide workers with NIOSH approved respirators in accordance with requirements of 29 CFR 1910. 134 for level of exposure incurred.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Appearance Color	Liquid Colorless White or transparent	Odor Odor threshold	None No information available
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<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Approx. 8.5	
Melting point/freezing point	No information available	
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	No information available	
Lower flammability limit:	No information available	
Vapor pressure	No information available	
Vapor density	No information available	
Specific Gravity	Not information available	
Water solubility	71g/100ml at 20°C 91g/100ml at 40°C	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	No information available	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point Molecular weight VOC Content (%) Density Bulk density	No information available No information available No information available 1.34 g/cm ³ at 20°C for 26% solution No information available
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10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

Metal hydrides and other water reactive materials.

Hazardous Decomposition Products

At very high temperatures, magnesium oxide, sulfur dioxide and sulfur trioxide may be generated.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information	No data available
Inhalation	No data available.
Eye contact	Irritating to eyes.
Skin Contact	No data available.
Ingestion	No data available.

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization	No information available.
Germ cell mutagenicity	No information available.
Carcinogenicity	No information available.
Reproductive toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Aspiration hazard	No information available.

Numerical measures of toxicity - Product Information

Unknown Acute Toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity

12. ECOLOGICAL INFORMATION

Ecotoxicity

This material is not persistent in aquatic systems.

Persistence and degradability

No information available.

Bioaccumulation

Material does not bioaccumulate.

Mobility

Sinks and mixes with water.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

This product does not exhibit any characteristics of a hazardous waste. The product is suitable for landfill disposal. Follow all applicable federal, state and local regulations for safe disposal.

Contaminated packaging

Do not reuse container.

14. TRANSPORT INFORMATION

DOT

Not regulated by DOT as a hazardous material. No hazard class, label or placard required, no UN or NA number assigned.

15. REGULATORY INFORMATION

International Inventories

TSCA	Complies
DSL/NDSL	Complies
EINECS/ELINCS	Does not comply
ENCS	Complies
IECSC	Complies
KECL	Does not comply
PICCS	Complies
AICS	Complies

Legend:**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS** - Japan Existing and New Chemical Substances**IECSC** - China Inventory of Existing Chemical Substances**KECL** - Korean Existing and Evaluated Chemical Substances**PICCS** - Philippines Inventory of Chemicals and Chemical Substances**AICS** - Australian Inventory of Chemical Substances**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Acute health hazard	No
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

None

U.S. EPA Label Information

EPA Pesticide Registration Number Not Applicable

16. OTHER INFORMATION

<u>NFPA</u>	Health hazards 1	Flammability 0	Instability 0	Physical and Chemical Properties -
<u>HMIS</u>	Health hazards 1	Flammability 0	Physical hazards 0	Personal protection X

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Revision Note

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet