

SAFETY DATA SHEET
TersOx™ Buffer - Magnesium Hydroxide Powder



Revision date: 2019-06-14
Version 1.0

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Trade Name: TersOx™ Buffer - Magnesium Hydroxide Powder
Chemical Name: Magnesium Hydroxide
CAS No: 1309-42-8
Formula: Mg(OH)₂
Synonyms: Magnesium dihydroxide, Magnesium hydroxide, Magnesium(II) hydroxide, milk of magnesia
Product Form: Substance

Recommended use of the chemical and restrictions on use

Recommended Use: For use in specialty or industrial applications related to neutralizing acid buildup in soil, sludge, wastewater and groundwater treatment.

Restrictions on Use: Use as recommended by the label

Details of the supplier and of the safety data sheet

Supplier: Tersus Environmental, LLC
1116 Colonial Club Rd
Wake Forest, NC 27587
Phone: +1-919-453-5577
Email: info@tersusenv.com

Contact Person: David F. Alden
Phone: +1-919-453-5577 x2002
Email: david.alden@tersusenv.com

Emergency telephone number

For leak, fire, spill or accident emergencies, call:

- +1-919-453-5577 (Tersus Office Hours, 8:00 AM to 5:00 PM Eastern)
- +1-800-424-9300 (Chemtrec 24 Hour Service – Emergency Only)
- +1-703-527-3887 (Chemtrec Outside United States 24 Hour Service – Emergency Only)
- +1-919-638-7892 Gary M. Birk (Outside office hours)

2. HAZARD IDENTIFICATION

Classification

Physical hazards	Not classified.
Health hazards	Not classified.
Environmental hazard	Not classified.
OSHA defined hazard	Not classified.

GHS Label elements, including precautionary statements**Label elements****Hazard symbol** None.**Signal word** None.**Hazard Statements** The mixture does not meet the criteria for classification.**Precautionary statements - Prevention**

Observe good industrial hygiene practices

Precautionary statements - Response

Wash hands after handling.

Precautionary statements - Storage

Store away from incompatible materials.

Precautionary Statements - Disposal

Dispose of waste and residues in accordance with local authority requirements.

Other Hazards

N/A

Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Magnesium Hydroxide

Substance type: Mono-constituent**Chemical Formula:** Mg (OH)₂**CAS No:** 1309-42-8**Hazardous components**

Chemical Name	CAS Number	Concentration (wt. %)
Magnesium Oxide	1309-42-8	95.0
Calcium Oxide	1305-78-8	2.67
Silicon Dioxide	7631-86-9	1.63
Iron (III) Oxide		0.22

Synonyms are provided in Section 1.

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

General Information	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Eye Contact	Rinse with water. Get medical attention if irritation develops and persists.
Skin Contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Inhalation	Move to fresh air. Call a physician if symptoms develop or persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.
Most important Direct contact with eyes may cause temporary irritation.
Symptoms and Effects,
both Acute and Delayed

Indication of any Immediate Medical
Attention and Special
Treatment Needed Treat symptomatically

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂)
Unsuitable Extinguishing Media Do not use water jet as an extinguisher, as this will spread the fire.
Explosion Data
General Fire Hazards No unusual fire or explosion hazards noted.
Special Protective Equipment and Precautions for Firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Specific Methods Use standard firefighting procedures and consider the hazards of other involved materials.
Specific Hazards Arising from the Chemical or Mixture During fire, gases hazardous to health may be formed.
Special Fire Fighting Procedures Move containers from fire area if you can do so without risk.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.
Environmental Precautions Methods for Containment and Clean Up Avoid discharge into drains, water courses or onto the ground.
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.
Small Spills: Wipe up with absorbent material (e.g. cloth, fleece).
Clean surface thoroughly to remove residual contamination.
Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

7. HANDLING AND STORAGE

Precautions for Safe Handling Hygiene Measures Conditions for Safe Storage, including any Incompatibilities

- Observe good industrial hygiene practices.
- Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. EXPOSURE CONTROL / PERSONAL PROTECTION

Exposure Control

Appropriate Engineering Controls	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
Eye/face Protection Occupational Exposure limits	Wear chemical safety goggles with side shields. No exposure limits noted for ingredient(s).
Biological Limit Values	No biological exposure limits noted for the ingredient(s).
Individual Protection Measures, such as Personal Protective Equipment	The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910. 132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.
Respiratory Protection Skin Hand Protection	In case of insufficient ventilation, wear suitable respiratory equipment. Wear suitable chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.
General Hygiene	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Other Work Practices	Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Appearance	White
Odor	ODORLESS
Odor threshold	Not determined
pH	Not measured
Melting Point / Freezing Point	662 °F (350 °C) estimated
Initial Boiling Point and Boiling Range	212 °F (100 °C) estimated
Flash Point	Not Measured
Evaporation Rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
<u>Upper/lower Flammability or Explosive Limits</u>	
Lower Explosive Limit:	Not Measured
Upper Explosive Limit:	Not Measured
Vapor Pressure (Pa)	Not Measured
Vapor Density	Not Measured
Specific Gravity	1.45
Solubility in Water	Insoluble
Partition Coefficient n-octanol/water	Not Measured

(Log Kow)

Auto-ignition Temperature	Not Measured
Decomposition Temperature	Not Measured
Viscosity (cSt)	Not Measured
Density	12.07 lbs/gal

10. STABILITY AND REACTIVITY

Reactivity	<ul style="list-style-type: none"> The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical Stability	<ul style="list-style-type: none"> Material is stable under normal conditions.
Possibility of Hazardous Reactions	<ul style="list-style-type: none"> No dangerous reaction known under conditions of normal use.
Conditions to Avoid Incompatible Materials	<ul style="list-style-type: none"> Contact with incompatible materials. Strong oxidizing agents.
Hazardous Decomposition Products	<ul style="list-style-type: none"> No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION**Acute Toxicity**

Not available.

Classification	Hazard Description
Acute toxicity (oral)	Not Applicable
Acute toxicity (dermal)	Not Applicable
Acute toxicity (inhalation)	Not Applicable
Skin corrosion/irritation	Prolong skin contact may cause temporary irritation.
Serious eye damage/irritation	Direct contact with eyes may cause temporary irritation.
Respiratory sensitization	Not a respiratory sensitizer
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
STOT-single exposure	Not Classified
STOT-repeated exposure	Not Classified
Aspiration hazard	Not an aspiration hazard

12. ECOLOGICAL INFORMATION**Aquatic Ecotoxicity**

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and Degradability

No data is available on the degradability of this product.

Bioaccumulative Potential

No data available.

Mobility in Soil

No data available.

Other Adverse Effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods	Collect and reclaim or dispose in sealed containers at licensed waste disposal site.
Local Disposal Regulations	Dispose in accordance with all applicable regulations.
Hazardous Waste Code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from Residues/ unused Products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated Packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORTATION INFORMATION**DOT**

Not regulated as dangerous goods.
DOT information on packaging may be different from that listed.

15. REGULATORY INFORMATION**U.S. Federal Regulations**

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910. 1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Not listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910. 1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA) Hazard Categories

- | | |
|--------------------|----|
| • Immediate hazard | No |
| • Delayed hazard | No |
| • Fire hazard | No |
| • Pressure hazard | No |
| • Reactive Hazard | No |

Sara 302 Extremely hazardous substance

Not listed

SARA 311/312 Hazardous

Not listed

SARA 313 (TRI reporting)

Not regulated.

Other Federal Regulations

Clean Water Act (CWA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Water Act (CWA) Section 112(r) Accidental Release Prevention (40 CFT 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

US State Regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed

US. Massachusetts RTK – Substance list

Not regulated.

US. New Jersey Worker and Community Right-to-Know Act

Not listed.

US. Pennsylvania Worker and Community Right-to-Know Law

Not listed.

US. Rhode Island RTK

Not regulated.

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

16. OTHER INFORMATION

NFPA (National Fire Protection Association) - Classification

- Health 0
- Flammability 0
- Instability or Reactivity 0

HMIS (Hazardous Materials Identification System (Paint & Coating)) - Classification

- Health 0 minimal
- Flammability 0 minimal
- Reactivity 0 minimal

Disclaimer: This 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. All recommendations for the use of our products, whether given by us, orally or to be implied from data or lab tests results by us, are based on the current state of our knowledge at the time those recommendations are made. When additional information is obtained, these recommendations may be updated. They may also be influenced by circumstances outside our control. Notwithstanding, such recommendation the user is responsible that the product as supplied by us is suitable to the process or purpose he intends to use it. The user of the product is solely responsible for compliance with all laws and regulations applying to the use of this product. Since we cannot control the application, use or processing of the product, we do not accept responsibility. Therefore, the user should assure that the intended use of the product will not infringe in any party's intellectual property right.



TersOx is a Trademark of Tersus Environmental, LLC
Copyright © 2019 Tersus Environmental, LLC. All Rights Reserved.

End of Safety Data Sheet