

# MATERIAL SAFETY DATA SHEET

PREMIER CHEMICALS

MSDS No.: 2762

Phone: PREMIER CHEMICALS: 1-800-227-4287

Date Prepared: 5/10

CHEMTREC, 24-Hr Emergency Assistance: 1-800-424-9300

This Revision:

## SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Material / Product Name(s): **THIOGUARD®**

CAS Number: 1309-42-8

Chemical Family: Inorganic Hydroxide

**General Use:** An aqueous slurry of magnesium hydroxide for water and wastewater alkalinity supplementation, pH supplementation, hydrogen sulfide reduction, hydrogen sulfide generated sulfuric acid reduction, FOG (Fats, Oils and Grease) reduction, biosolids improvement, and solids precipitation improvement and sewer crown/manhole application.

**Manufacturer / Supplier:** PREMIER CHEMICALS  
300 Barr Harbor  
Suite 250  
West Conshohocken, PA 19428-2998

## SECTION 2. INGREDIENTS / COMPOSITION

Ingredient name:	CAS Number:	Percent:	IARC/NTP/OSHA:	Exposure Limits:
Magnesium Hydroxide	1309-42-8	53-65	No	Nuisance Particulate OSHA PEL:TWA 15mg/m <sup>3</sup> ;respirable: 5mg/m <sup>3</sup> . ACGIH TLV:TWA Total dust:10mg/m <sup>3</sup> ; respirable dust: 5mg/m <sup>3</sup> .
Water	7732-18-5	35-47	No	None Established
Miscellaneous Nonhazardous Ingredients	----	<1	No	None Established

### Typical Chemical Analysis, Wt.% (Loss Free Basis)

LOI (Dry basis @1000°C)	30.0
SiO <sub>2</sub>	0.45-5.0
Fe <sub>2</sub> O <sub>3</sub>	0.12-0.5
Al <sub>2</sub> O <sub>3</sub>	0.13-0.5
CaO	0.65-4.0
MgO	90-98.5

The oxides shown in the typical chemical analysis do not exist in the magnesium hydroxide as free, uncombined oxides, but are combined in complex mineralogical phases.

## SECTION 3. HAZARDS IDENTIFICATION

### HMIS

HEALTH HAZARD	0 - MINIMAL
FLAMMABILITY HAZARD	0 - MINIMAL
REACTIVITY HAZARD	0 - MINIMAL
PERSONAL PROTECTION	B - Glasses, Gloves

### EMERGENCY OVERVIEW:

A tan to off-white aqueous slurry. Low toxicity. Not a fire or spill hazard. Avoid storage of product in tanks/drums constructed of aluminum. Dust is classified as a "nuisance particulate not otherwise regulated".

Target Organs: No hazard in normal industrial use.

Primary route(s) of entry: Inhalation

Acute effects: Overexposure to mist/particulate may cause physical eye and upper respiratory irritation.

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### HAZARD IDENTIFICATION continued from page 1

**Chronic effects:** Not hazardous in normal industrial use. Dust from dried product slurry is classified as a "nuisance particulate, not otherwise regulated" as specified by ACGIH and OSHA.

**Signs & symptoms of overexposure:**

**Eye contact:** Low toxicity. Particulate is a physical eye irritant.

**Skin contact:** Low toxicity by skin contact.

**Inhalation:** Low toxicity by inhalation route.

**Ingestion:** An unlikely route of exposure. If ingested in sufficient quantity, may cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting and diarrhea.

### SECTION 4. FIRST AID MEASURES

**Eye contact:** Flush eyes, including under the eyelids, with large amounts of water. If irritation persists, seek medical attention.

**Skin contact:** Wash affected areas with mild soap and water.

**Inhalation:** Remove victim to fresh air. If not breathing, give artificial respiration. Get immediate medical attention.

**Ingestion:** Ingestion is an unlikely route of exposure. If ingested in sufficient quantity and victim is conscious, give 1-2 glasses of water or milk. Never give anything by mouth to an unconscious person. Leave decision to induce vomiting to qualified medical personnel, since particles may be aspirated into the lungs. Seek immediate medical attention.

### SECTION 5. FIRE FIGHTING MEASURES

**NFPA code:** Flammability: 0, Health: 0, Reactivity: 0, Special: 0.

**Flash point:** Not Combustible

**Unusual Fire Hazard / Extinguishing Media:** None

**Hazardous Decomposition Products:** None

**Firefighting Instructions:** Firefighters should wear NIOSH-approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

**Spill procedures:** Not a spill or environmental hazard. Carefully, clean up and place material into a suitable container, being careful to avoid creating excessive dust from dried product. If conditions warrant, clean up personnel should wear approved respiratory protection, gloves, and goggles to prevent irritation from contact and/or inhalation.

### SECTION 7. HANDLING AND STORAGE

**Storage:** Do not store in aluminum tanks. Do not allow product to freeze.

### SECTION 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

**Engineering controls:** Provide sufficient ventilation, in both volume and air flow patterns to control mist/dust concentrations below allowable exposure limits.

**Personal protective equipment:** The use of eye protection, gloves and long sleeve clothing is recommended.

**Respiration protection:** Provide workers with NIOSH approved respirators in accordance with requirements of 29 CFR 1910.134 for level of exposure incurred.

**Hygienic Practices:** Avoid contact with skin, eyes and clothing. After handling this product, wash hands before eating or drinking.

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### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:** The product is an off-white/tan colored, stable slurry mix; odorless.

**Boiling Point:** Losses free water at 100°C; **Specific Gravity (g/cc):** 1.45  
Chemically combined water at 350°C

**Melting Point:** >3800°F (2100°C) **Density (lbs./gal.):** 11.88 - 12.35

**Water Solubility: Aqueous Slurry** **% Volatile by volume:** 0

**pH (10% aqueous slurry):** 10-11 **Evaporation rate:** Same as water

### SECTION 10. STABILITY AND REACTIVITY

**Hazardous Polymerization:** Will not occur

**Chemical Incompatibilities:** Maleic anhydride; acids. Aluminum metal in contact with product may produce hydrogen gas.

**Hazardous Decomposition Products:** Heat and steam.

### SECTION 11. TOXICOLOGICAL INFORMATION

**Magnesium Hydroxide** CAS#1309-42-8 Toxic and Hazard Review: a general purpose food additive; THERAP CAT: Antacid, cathartic THERAP CAT (VET): Laxative.

**Toxicity Data:** No LD<sub>50</sub> or LC<sub>50</sub> found for oral, dermal, or inhalation routes of administration.

Balance of Ingredients: No LD<sub>50</sub> or LC<sub>50</sub> found for oral, dermal, or inhalation routes of administration

### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicological / Chemical Fate Information:** No data available on any adverse effects of this material on the environment.

### SECTION 13. DISPOSAL INFORMATION

**Waste Management/Disposal:** This product does not exhibit any characteristics of a hazardous waste. The product is suitable for landfill disposal once the free water component is evaporated or absorbed by a suitable absorbent (earth). Follow all applicable federal, state and local regulations for safe disposal.

### SECTION 14. TRANSPORT INFORMATION

**WARNING!** Premier Chemicals prohibits transportation or storage of this product in tanks constructed of aluminum - see Section 10.

**US Department of Transportation:** Not regulated by DOT as a hazardous material. No hazard class, no label or placard required, no UN or NA number assigned.

**Canadian TDG Hazard Class & Pin:** Not regulated.

### SECTION 15. REGULATORY INFORMATION

**Product or components of mixture regulated under following lists:**

**SARA TITLE III:**

Section 302: NO (Extremely Hazardous Substances)

Section 304: NO (Emergency Release)

Section 311: YES (*Community Right-to-Know*, MSDSs or List of Chemicals)

Section 312: YES (*Community Right-to-Know*, Inventory and Location, (Tier I/II))

Section 313: NO (Toxic Chemicals, Toxic Chemical Release Reporting, Form R)

**TSCA:** All substances in this product are listed in the Chemical Substance Inventory of the Toxic Substances Control Act.

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**This Revision:****REGULATORY INFORMATION continued from page 3****CERCLA Hazardous Substance List, RQ:** No**SECTION 16. OTHER INFORMATION****ACRONYMS AND REFERENCES USED IN PREPARATION OF MSDS':**

ACGIH:	American Conference of Governmental Industrial Hygienists
CAS#:	CAS Registration Number is an assigned number to identify a material. CAS stands for Chemical Abstracts Service.
CERCLA:	Comprehensive Environmental Response, Compensation & Liability Act
EPCRA:	Emergency Planning and Community Right-to-Know Act of 1986
HMIS™:	Hazardous Materials Identification System (National Paint & Coatings Association)
IARC:	International Agency for Research on Cancer
MSHA:	Mine Safety and Health Administration
mg/m <sup>3</sup> :	Milligrams per cubic meter
NIOSH:	National Institute for Occupational Safety and Health
NFPA:	National Fire Protection Association
NTP:	National Toxicology Program
OSHA:	Occupational Safety and Health Administration
PEL:	Permissible Exposure Limit (OSHA)
REL:	Recommended Exposure Limit (OSHA)
SARA:	Superfund Amendments and Reauthorization Act
TITLE III:	Emergency Planning and Community Right-to-Know Act
Section 302:	Extremely Hazardous Substances
Section 304:	Emergency Release
Section 311:	<i>Community Right-to-Know</i> , MSDSs or List of Chemicals
Section 312:	<i>Community Right-to-Know</i> , Inventory and Location, (Tier I/II)
Section 313:	Toxic Chemicals, Toxic Chemical Release Reporting, Form R
TLV:	Threshold Limit Values (ACGIH)
TWA:	Time Weighted Average
29CFR1910.134:	OSHA Respiratory Protection Standard

**REFERENCES:**

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 Kirk, R. and Othmer, D., Encyclopedia of Chemical Technology, Third Edition, Wiley-Interscience, New York, NY 1982.  
 Clansky, K.B., Suspect Chemicals Sourcebook, 1992-2<sup>nd</sup> Edition, Roytech Publications, Bethesda, Maryland.  
 Sax, N. Irving and Lewis, R.J. Hawley's Condensed Chemical Dictionary, Eleventh Ed., Van Nostrand Reinhold Co., Inc., NY  
 Manufacturers / Suppliers, Material Safety Data Sheets on Raw Materials Used  
 American National Standard for Hazardous Industrial Chemicals - Material Safety Data Sheets - Preparation, American National Standards Institute, Inc., 11 West 42<sup>nd</sup> St, New York, NY 10036.

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