Safety Data Sheet

1. Product Identifier and Company Identification

Product name : **Thioguard®**
HBCC SDS number : CM04466,
Synonym : Aquamag, Thioguard® 1, Magnesium Hydroxide, Mag Hydroxide, Hydrated Magnesia
Product use and Restrictions : Refer to label or call
Manufacturer Contact Address :

Corporate Headquarters
Hill Brothers Chemical Company
1675 North Main Street
Orange, California 92867
714-998-8800
800-821-7234

Corporate Safety & Compliance
Hill Brothers Chemical Company
7121 West Bell Road, Suite 250
Glendale, Arizona 85308
623-535-9955 - Office
623-535-9944 - Fax

Emergency telephone Number (Chemtrec) : 800-424-9300
Website : http://hillbrothers.com

2. Hazard Identification

Classification : 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.
Signal Word : None
Pictogram(s) : None
Hazard Statements : None

Precautionary Statements

Response : None
Prevention : None
Storage : None
Disposal : None

3. Composition/Information on Ingredients

CAS Number	Ingredient Name	Weight %
1309-42-8	Magnesium Hydroxide	53-61%
7732-18-5	Water	39-47%

4. First Aid Measures

Ingestion : Ingestion is an unlikely route of exposure. Give 1 - 2 glasses of water and seek immediate medical attention. Never give anything by mouth to an unconscious person. Leave decision to induce vomiting for medical personnel, since some particles may be aspirated into the lungs. Seek immediate medical attention.

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

Skin : Wash affected areas with mild soap and water.

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

Medical Conditions : Dust from the dried product may aggravate pre-existing chronic lung conditions such as, but not limited to, bronchitis, emphysema, and asthma.

Effects of Overexposure : Overexposure to mist/particulate may cause physical eye and upper respiratory irritation.

Summary of Acute Health Hazards : The product presents a very low health risk. Magnesium hydroxide is a general purpose food additive. Dust generated from the dried product is classified as a nuisance dust.

Ingestion : Ingestion is unlikely. If ingested in sufficient quantity, may cause gastrointestinal disturbances. Symptoms may include irritation, nausea, vomiting, abdominal pain and diarrhea.

Inhalation : May irritate the respiratory tract on prolonged or repeated contact. May aggravate pre-existing respiratory conditions.

Skin : Repeated or prolonged contact may cause irritation.

Eyes : Particulate is a physical eye irritant.

Note to Physicians : N/A

Summary of Chronic Health : Dried product dust is classified as a "nuisance particulate, not otherwise regulated" as specified by ACGIH and OSHA. The excessive, long-term inhalation of mineral dusts may contribute to the development of industrial bronchitis, reduced breathing capacity, and may lead to the increased susceptibility to lung disease.

5. Fire Fighting Measures

Extinguishing : Use extinguishing media appropriate to combustibles in vicinity of fire.

Special Exposure Hazards : N/A

Special Protective Equipment for Fire Fighters : Firefighters should wear NIOSH-approved, positive pressure, self-contained breathing apparatus and full protective clothing when appropriate.

Fire Fighting Procedures : N/A

NFPA Rating : Health - 1
Flammability - 0
Instability - 0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

Uniform Fire Code Rating : N/A

6. Accidental Release Measures

Personal Precautions : If conditions warrant, clean up personnel should wear approved respiratory protection, gloves, and goggles to prevent irritation from contact and/or inhalation.

Emergency Procedures : N/A

Methods of Containment And Clean-Up : Carefully, clean up and place material into a suitable container, being careful to avoid creating excessive dust from dried product.

7. Handling and Storage

Safe Handling : Prevent possible eye and skin contact by wearing protective clothing and equipment.

Storage : Store at ambient temperature. Do not store in aluminum tanks. Do not allow product to freeze.

Work/Hygienic Practices : Avoid contact with skin, eyes and clothing. Wash hands thoroughly with soap and water before eating, drinking, smoking or using toilet facilities. Do NOT place food, coffee or other drinks in the area where dusting or splashing of solutions is possible.

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

8. Exposure Controls/Personal Protection

Occupational Exposure Limits : N/A

Chemical Name: Magnesium Hydroxide				
Exposure Limits (TWAs) in Air				
CAS Number	**Chemical Name**	**ACGIH TLV**	**OSHA PEL**	**STEL**
1309-42-8	Magnesium Hydroxide	10 mg/m³(total dust) 5 mg/m³(respirable dust)	15 mg/m³(total dust); 5 mg/m³ (respirable)	N/A

Protective Equipment : Gloves are recommended, rubber gloves are recommended when repeated or prolonged contact is likely. Long sleeve clothing is also recommended.

Eye Protection : Safety glasses are recommended.

Respiratory : Respirator approved by NOISH/ MSHA are adequate for contaminate concentrations encountered in accordance with requirements of 29 CFR 1910.134 for level of exposure incurred.

9. Physical and Chemical Properties

Appearance: Tan to off-white aqueous slurry	**Odor:** Odorless
Odor Threshold: N/A	**pH (10% aqueous slurry):** 10-11
Melting Point: >662° F (350° C) **Freezing Point:** N/A	**Initial Boiling Point/Range:** 212° F, 100° C (Water component)
Flash Point: N/A	**Evaporation Rate (BuAc=1):** Same as water
Flammability: N/A	**Lower/Upper Explosive Limit:** N/A
Vapor Pressure (mmHg): N/A	**Vapor Density (Air=1):** N/A
VOC: N/A	**Solubility in Water:** Aqueous Slurry
Specific Gravity (g/cc): 1.45	**Heat:** N/A
Decomposition Temperature: N/A	**Density at 25° C (77° F):** 12.71 – 13.19lbs./gal
% Volatiles: 0	**Loose Bulk Density:** N/A
Molecular Weight: 58.32 g/mol	-

10. Stability and Reactivity

Reactivity : N/A

Chemical Stability : Stable

Possibility of Hazardous Reactions or Polymerizations : Hazardous Polymerization will not occur

Conditions to Avoid : N/A

Incompatible Materials : Maleic Anhydride; Acids; Aluminum metal in contact with product may produce hydrogen. Phosphorous.

Hazardous Decomposition Products : Heat and steam

11. Toxicological Information

Acute and Chronic Effects : N/A

Routes of Exposure

Inhalation : No
Ingestion : Yes
Skin : Yes
Eyes : Yes

Symptoms related to Physical, Chemical & Toxicological Characteristics : N/A

Numerical Measures of Toxicity : N/A

Chronic Toxicity : N/A

Carcinogenicity :

Product Name: Magnesium Hydroxide					
ACGIH	**IARC**	**EPA**	**NIOSH**	**NTP**	**OSHA**
No	No	No	No	No	No

TARGET ORGANS : N/A

12. Ecological Information

Ecotoxicity : N/A

Persistence and Degradability : N/A

Bioaccumulative Potential :

Product/Ingredient	Log $_{Pow}$	BCF	Potential
-	-	-	-

Mobility in Soil : N/A

13. Disposal Considerations

Disposal of Container : This product is suitable for landfill disposal once the free water component is evaporated or absorbed by a suitable absorbent (earth). Disposal must be

done in accordance with Local, State, and Federal regulations.

14. Transport Information

This product is not regulated as a hazardous material, substance or dangerous good.

Product must not be transported in tanks constructed of aluminum.

15. Regulatory Information

SARA 302 Extremely Hazardous Substances (EHS) : No chemical in this product is listed as an Extremely Hazardous Substance (EHS) under Section 302 of EPCRA.

SARA 304 Extremely Hazardous Substances (EHS) Release Notification : No chemical in this product is listed as an Extremely Hazardous Substance (EHS) which, if released to the environment in quantities at or above the substance's Reportable Quantity (RQ), would require reporting to the SERC and LEPC under Section 304 of EPCRA.

SARA 311/312 Hazards :

SARA 311/312 Hazards				
Acute	Chronic	Flammability	Pressure	Reactivity
No	No	No	No	No

SARA 313 Reportable Chemicals : No chemical in this product is subject to annual emissions, transfers, or waste management reporting under the Community-Right-to-Know provisions of EPCRA Section 313, also known as the Toxic Release Inventory (TRI) Report or Form R.

CERCLA Hazardous Substances : No chemical in this product is listed as a CERCLA hazardous substance subject to the National Response Center (NRC) release reporting requirements.

Clean Air Act (CAA) Section 112(r) Air Pollutants : No chemical in this product is listed as an air pollutant under the U.S. Clean Air Act, Section 112(r) (40 CFR 61).

California Prop 65 Chemicals : This product does not contain any chemicals known to the state of California to cause cancer and birth defects or other reproductive harm.

Hazard Label Warning : This product does not require hazard label warnings.

TSCA (Toxic Substances Control Act) : All chemical substances in this product are listed on the U.S. TSCA Inventory List.

ACRONYMS:

CAS # – Chemical Abstract Services Registry Number
CFR – Code of Federal Regulations
CERCLA – Comprehensive Environmental Response, Compensation, and Liability Act
EPCRA – Emergency Planning and Community Right-to-Know Act
LEPC – Local Emergency Planning Committee

SERC – State Emergency Response Commission

16. Other Information

Revision date : 05/05/2015
Supersedes : 10/13/2008
First Issue : 08/21/1997

Chemical Family/Type : Inorganic Oxide
Thioguard® is a registered trademark of Premier Chemicals

Section(s) changed since last revision : MSDS to First Issue SDS Conversion

IMPORTANT! Read this SDS before use or disposal of this product. Pass along the information to employees and any other persons who could be exposed to the product to be sure that they are aware of the information before use or other exposure. This SDS has been prepared in accordance with the Globally Harmonized System of Chemical and Labeling of Chemicals (GHS) Fifth Edition and the OSHA Hazard Communication Standard [29 CFR 1910.1200]. The SDS information is based on sources believed to be reliable. Available data, safety standards, and government regulations are subject to change and the conditions of handling and use, or misuse are beyond our control; **Hill Brothers Chemical Company** makes no warranty, either expressed or implied, with respect to the completeness or continuing accuracy of the information contained herein and disclaims all liability for reliance thereon. Additional information may be necessary or helpful for specific conditions and circumstances of use. It is the user's responsibility to determine the suitability of this product and to evaluate risks and exercise appropriate precautions for protection of employees and others prior to use.