



# SAFETY DATA SHEET

Issue Date 23-October 2017

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Version 1

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

**Product identifier**

**Product Name** THIOGUARD® AC

**Other means of identification**

**Product Code** THIOGUARD® AC

**Synonyms** Light Burned Magnesium Oxide, Caustic Calcined Magnesia, MgO, Magnesium Oxide,

**Recommended use of the chemical and restrictions on use**

**Recommended Use** A chemical grade magnesium oxide powder.

**Uses advised against** No information available

**Details of the supplier of the safety data sheet**

**Manufacturer Address**

Premier Magnesia, LLC, 75 Giles Place, 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**

Product dust is classified as a "nuisance particulate, not otherwise regulated" as specified by ACGHI 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.

**Label elements**

**Emergency Overview**

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

**Appearance** Fine Powder

**Physical state** Solid

**Odor** Odorless

Particulate may cause eye irritation

Low toxicity by skin contact.

Chronic overexposure by inhalation of airborne particulate may irritate upper respiratory system as well as the throat.

Ingestion is an unlikely route of exposure. If ingested in large amounts it may cause irritation, nausea, vomiting, diarrhea, abdominal pain, black stool, pink urine, coma and possibly death.

**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

**Common name**

Magnesium Oxide # 1309-48-4.

**Synonyms** Light Burned Magnesium Oxide, Caustic Calcined Magnesia, MgO, Magnesium Oxide,

Chemical Name	CAS No.	Weight-%	Trade Secret
Magnesium Oxide	1309-48-4	100	

#### 4. FIRST AID MEASURES

##### First aid measures

**Eye contact** Rinse thoroughly with plenty of water, also under the eyelids. (Get medical attention immediately if irritation persists.)

**Skin Contact** Wash skin with soap and water.

**Inhalation** Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately.

**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.

##### 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

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** Water reacts with magnesium oxide producing magnesium hydroxide and heat. Do not allow water to get inside containers: reaction with water will cause product to swell, generate heat, and burst its container. If contact is unavoidable, use sufficient water to safely absorb the heat that may be generated.

##### Specific hazards arising from the chemical

No information available.

##### 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** Ensure adequate ventilation, especially in confined areas.

##### Environmental precautions

**Environmental precautions** See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

<b>Methods for containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for cleaning up</b>	Carefully clean up and place material into a suitable container, being careful to avoid creating excessive dust. If conditions warrant, clean up personnel should wear approved respiratory protection, gloves and goggles to prevent irritation from contact and/or inhalation.

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

**Advice on safe handling** Use personal protective equipment as required.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Store in dry, protected storage. Product is stable under normal conditions of storage. Minimize dust generation during material handling and transfer.

**Incompatible materials** Interhalogens, bromine pentafluoride, chlorine trifluoride. Contact with aluminum metal may release hydrogen gas. Incandescent reaction with phosphorus pentachloride. Water will react with magnesium oxide to form magnesium hydroxide and release heat and steam.

**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.

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Magnesium Oxide 1309-48-4	TWA: 10 mg/m <sup>3</sup> inhalable fraction	TWA: 15 mg/m <sup>3</sup> fume, total particulate (vacated) TWA: 10 mg/m <sup>3</sup> fume and total particulate	IDLH: 750 mg/m <sup>3</sup> fume

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

**Appropriate engineering controls**

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

**Individual protection measures, such as personal protective equipment**

<b>Eye/face protection</b>	Avoid contact with eyes. The use of eye protection is recommended.
<b>Skin and body protection</b>	The use of eye protection, gloves and long sleeve clothing is recommended.
<b>Respiratory protection</b>	Provide workers with NIOSH approved respirators in accordance with requirements of 29 CFR 1910. 134 for level of exposure incurred.

**General Hygiene Considerations** Wash hands thoroughly after handling.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

<b>Physical state</b>	Solid	<b>Odor</b>	Odorless
<b>Appearance</b>	Fine Powder	<b>Odor threshold</b>	No information available
<b>Color</b>	Brownish		

<u>Property</u>	<u>Values</u>	<u>Remarks</u> • <u>Method</u>
pH	10-11	10% aqueous slurry
Melting point/freezing point	>2100 °C >3800 °F	
Boiling point / boiling range	No information available	
Flash point	No information available	
Evaporation rate	Not Applicable	
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	3.56	
Water solubility	Slight <1%	
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	
<b><u>Other Information</u></b>		
Softening point	No information available	
Molecular weight	No information available	
VOC Content (%)	No information available	
Density	No information available	
Bulk density	40-60 lb/ft3	

## 10. STABILITY AND REACTIVITY

### Reactivity

No data available

### Chemical stability

Stable under recommended storage conditions.

### Possibility of Hazardous Reactions

None under normal processing.

#### **Hazardous polymerization**

Hazardous polymerization does not occur.

### Conditions to avoid

Extremes of temperature and direct sunlight.

### Incompatible materials

Interhalogens, bromine pentafluoride, chlorine trifluoride. Contact with aluminum metal may release hydrogen gas. Incandescent reaction with phosphorus pentachloride. Water will react with magnesium oxide to form magnesium hydroxide and release heat and steam.

### Hazardous Decomposition Products

Heat and steam.

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

#### **Product Information**

Magnesium Oxide # 1309-48-4

<b>Inhalation</b>	Inhalation of fume (not MgO dust particulate) produced upon decomposition of magnesium compounds can produce a febrile reaction and leukocytosis in humans.
<b>Eye contact</b>	No data available.
<b>Skin Contact</b>	No data available.
<b>Ingestion</b>	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**

<b>Sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	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**

No data available on any adverse effects of this material on the environment

100% of the mixture consists of components(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Other adverse effects**

No information available

**13. DISPOSAL CONSIDERATIONS****Waste treatment methods**

**Disposal of wastes** This produce 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. Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Do not reuse container.

**14. TRANSPORT INFORMATION**

**DOT**

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

<b>15. REGULATORY INFORMATION</b>
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**International Inventories**

**TSCA** Complies

Chemical Name	TSCA
Magnesium Oxide	X

**DSL/NDSL** Complies

**EINECS/ELINCS** Complies

**ENCS** Complies

**IECSC** Complies

**KECL** Complies

**PICCS** Complies

**AICS** Complies

**X - Listed**

**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**

This product does not contain any substances reportable under Sections 302, 304 or 313. Sections 311 and 312 do apply. (Routine Reporting and Chemical Inventories)

**SARA 311/312 Hazard Categories**

<b>Acute health hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	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 chemicals known to the State of California to cause cancer, birthdefects or other reproductive toxins.

**U.S. State Right-to-Know Regulations**

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Magnesium Oxide 1309-48-4	X	X	X

**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 0	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**