



Safety Data Sheet

FIRE RETARDANT ADDITIVES

Zerogen® 50

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03
Canadian Workplace Hazardous Material Information System (WHMIS) 2015
Mexico NOM-018-STPS-2000; NOM-018-STPS-2015
Globally Harmonized System (GHS)

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Name: Zerogen® 50

Pure substance/mixture Substance

Magnesium Hydroxide

CAS Number 1309-42-8

Weight-% 100

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use flame retardant.

1.3. Details of the supplier of the safety data sheet

Company: J.M. Huber Corporation
3100 Cumberland Boulevard, Suite 600
Atlanta, GA 30339 USA
Tel: +1 678 247-7300

Internet www.hubermaterials.com

E-mail hubermaterials@huber.com

1.4. Emergency telephone number CHEMTREC: +1 800 424 9300 or International +1 703 527 3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Physical Hazards Not classified

Health Hazards Not classified

Environmental Hazard Not classified

2.2. Label elements

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Symbols/Pictograms None

Signal Word None

Hazard Statements None

Precautionary Statements

Prevention Do not handle until all safety precautions have been read and understood.
Employ good industrial hygiene practice
Do not breathe dust
Wear protective gloves/protective clothing/eye protection/face protection

Response IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
IF ON SKIN: Wash with plenty of soap and water
If swallowed, rinse mouth with water (only if the person is conscious)
Drink plenty of water

Storage Store away from incompatible materials
Keep in a dry place

Disposal Dispose of contents/containers in accordance with local regulations

Hazards not otherwise classified None known.
(HNOC)

SECTION 3: Composition/information on ingredients

Pure substance/mixture Substance

Chemical Name	CAS Number	TSCA: United States	Canada (DSL)	Mexico	REACH registration number	OSHA Regulatory Status	WHMIS	Weight-%
Magnesium Hydroxide	1309-42-8	Y	Y	Y	01-211948875 6-18-0040	Not regulated	Not regulated	100

Legend

X / Y: Complies , - / N: Not Listed , Exempt

SECTION 4: First aid measures

4.1. Description of first aid measures

General Advice Do not handle until all safety precautions have been read and understood. Employ good industrial hygiene practice. Wear suitable protective clothing, gloves and eye/face protection. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. When in doubt or if

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symptoms are observed, get medical advice.

Eye Contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin Contact

Wash with plenty of soap and water.

Ingestion

Rinse mouth thoroughly with water.

Inhalation

Do not breathe dust. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

Aspiration hazard

Not an expected route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

May cause irritation to mucous membranes and respiratory tract. Contact with dust can cause mechanical irritation or drying of the skin.

4.3. Indication of any immediate medical attention and special treatment needed

Treatment should be symptomatic and supportive. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Water spray (fog). Foam. Dry chemical. Carbon dioxide (CO₂).

Unsuitable Extinguishing Media

None known.

5.2. Special hazards arising from the substance or mixture

None known.

5.3. Advice for firefighters

Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Fire-fighting measures

Water mist may be used to cool closed containers. No special fire protection measures are necessary. Standard procedure for chemical fires.

SECTION 6: Accidental release measures

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6.1. Personal precautions, protective equipment and emergency procedures

Keep unauthorized personnel away. Avoid dust formation. Ensure adequate ventilation. Use personal protection recommended in Section 8.

For non-emergency personnel Keep unauthorized personnel away.

For emergency responders Keep unauthorized personnel away. Use personal protection recommended in Section 8.

6.2. Environmental precautions Avoid runoff to waterways and sewers.

6.3. Methods and material for containment and cleaning up Large Spill: Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust Small Spill: Vacuum or sweep material and place in a disposal container

6.4. Reference to other sections Section 8: Exposure controls and personal protection. See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Minimize dust generation and accumulation. Do not breathe dust. Ensure adequate ventilation. Wear appropriate personal protective clothing to prevent skin contact. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities Keep container tightly closed and dry. Store away from incompatible materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Magnesium Hydroxide

OSHA	TWA: 15 mg/m ³ total dust 5 mg/m ³ respirable
ACGIH	TLV-TWA: 8-hr : 10 mg/m ³ (total dust) 3 mg/m ³ (respirable fraction)
NIOSH	TWA: 15 mg/m ³ (total dust)
Canada	Not established
Mexico	TWA/OEL (VLE-PPT): Not established

Biological Limit Values: No information available

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Derived No Effect Level (DNEL) No information available

Predicted No Effect Concentration (PNEC) No information available

8.2. Exposure controls

Engineering Measures Provide a good standard of controlled ventilation (5 to 10 air changes per hour). Use exhaust ventilation to keep airborne concentrations below exposure limits. In case of insufficient ventilation, wear suitable respiratory equipment.

Personal protective equipment

Eye/Face Protection Wear safety glasses with side shields (or goggles).

Skin and Body Protection Wear suitable protective clothing.

Hand protection For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

Respiratory Protection In case of inadequate ventilation wear respiratory protection.

Thermal hazards None known. Wear suitable protective clothing.

Hygiene Measures No information available.

Environmental Exposure Controls Dispose of in accordance with local regulations.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical State Solid Powder

Color White

Odor Odorless

Odor Threshold No information available

pH: 8.4-10.2 (5% water suspension)

Freezing Point Not applicable

Flash Point: Non-combustible.

Evaporation Rate Not applicable.

Upper flammability limit:

Lower flammability limit:

Vapor Density Not applicable

Density 2.4 g/cm³, 20°C

Relative Density No data available

Water Solubility 11.7 mg/l, 25° C

Solubility in other solvents No information available

Partition coefficient No data available

Autoignition Temperature Not applicable

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Decomposition Temperature 626 °F (330° C)

SECTION 10: Stability and reactivity

10.1. Reactivity	Stable under normal conditions
10.2. Chemical stability	Stable under normal conditions
10.3. Possibility of hazardous reactions	No specific hazard known
10.4. Conditions to avoid	Incompatible materials. Dust formation.
10.5. Incompatible materials	None known
10.6. Hazardous decomposition products	None known

SECTION 11: Toxicological information

General Information Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Information on Likely Routes of Exposure

Inhalation	Avoid inhalation of the product May cause irritation of respiratory tract
Skin	Prolonged or repeated contact may dry skin and cause irritation
Eyes	Dust contact with the eyes can lead to mechanical irritation
Ingestion	Ingestion is not a likely route of exposure
Aspiration hazard	Not an expected route of exposure.

11.1. Information on toxicological effects

Magnesium Hydroxide
Oral LD50

8500 mg/kg Rat

Acute Toxicity	Based on available data, the classification criteria are not met
Chronic Toxicity	Based on available data, the classification criteria are not met.

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Respiratory Sensitization	Based on available data, the classification criteria are not met
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met
Reproductive Effects	Based on available data, the classification criteria are not met.
Carcinogenicity	Not listed as a carcinogen.
Specific target organ toxicity - Single exposure	No information available.
Specific target organ toxicity - Repeated exposure	No information available.

SECTION 12: Ecological information

12.1. Ecotoxicity Not considered to be harmful to aquatic life.

Magnesium Hydroxide

WGK Classification (VwVwS) 5209. WGK: nwg

12.2. Persistence and degradability	No data available.
12.3. Bioaccumulative potential	No data available.
Partition coefficient	No data available
Bioconcentration factor (BCF)	No data available.
12.4. Mobility in soil	No data available.
12.5. Results of PBT and vPvB assessment	No data available.
12.6. Other adverse effects	No information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal Methods Disposal should be in accordance with applicable regional, national and local laws and regulations.

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Magnesium Hydroxide
European Waste Catalog 060299
WGK Classification (VwVwS) 5209. WGK: nwg

SECTION 14: Transport information

TDG -Canada	Not regulated
DOT	Not regulated
ADR	Not regulated
RID	Not regulated
ADN	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated
ICAO	Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

SECTION 15: Regulatory information

Pure substance/mixture	Substance
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Chemical Name	CAS Number	EC No	REACH registration	Australia (AICS)	Canada (DSL)	China (IECSC)	Japan	S. Korea (KECL)	Mexico	New Zealand	Philippines (PICCS)	Taiwan	TSCA: United States
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			number										
Magnesium Hydroxide	1309-42-8	215-170-3	01-211948 8756-18-0 040	Y	Y	Y	ENCS:(1)-3 86 ISHL:(1)-38 6	KE-22716	Y	Y	Y	Y	Y

Legend

X / Y: Complies - / N: Not Listed Exempt

US Federal Regulations**EPA****CERCLA****Magnesium Hydroxide**

CERCLA

No

SARA 311/312 Hazardous
Categorization

No

CWA (Clean Water Act)

Not listed

CAA (Clean Air Act)

Not listed

U.S. State Right-to-Know Regulations

Chemical Name	CAS Number	California Proposition 65	California CPR	Massachusetts	Minnesota	New Jersey	Pennsylvania
Magnesium Hydroxide	1309-42-8	No		No	No	No	No

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain any Proposition 65 chemicals

CANADA**WHMIS:**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR

Magnesium Hydroxide

Not regulated

SECTION 16: Other information

Prepared byHuber Engineered Materials (HEM) Global Regulatory Affairs
regulatory.affairs@huber.com**Issue Date:**

22/Mar/2018

Print Date:

22/Mar/2018

Revision Number:

1.3

Reason for Version

OSHA (Occupational Safety and Health Administration of the US Department of Labor).

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Training Advice

Do not handle until all safety precautions have been read and understood.

Abbreviations and acronyms

International Agency for Research on Cancer (IARC)
International Air Transport Association (IATA)
International Maritime Dangerous Goods (IMDG)
International Uniform Chemical Information Database (IUCLID)
Workplace Hazardous Materials Information System (WHMIS) status and classification
EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification
DOT (Department of Transportation)
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
TWA - Time-Weighted Average
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)
The Classification, Labeling and Packaging of Substances and Mixtures (CLP) Regulation (EC 1272/2008)
PPE - Personal Protection Equipment
NIOSH - National Institute for Occupational Safety and Health
TDG (Transport of Dangerous Goods) Canada
CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)
Reportable Quantity (RQ) (RQ/% in mixture)
STEL - Short Term Exposure Limit
TLV® - Threshold Limit Value
Derived No Effect Level (DNEL)
SVHC: Substances of Very High Concern for Authorization:
Land transport (ADR/RID)
Biochemical oxygen demand (BOD)
Chemical oxygen demand (COD)
ICAO (air)
(IMDG) International Maritime Dangerous Goods
Positive Pressure Self-Contained Breathing Apparatus (SCBA)
Predicted No Effect Concentration (PNEC)
Globally Harmonized System (GHS)

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