



Safety Data Sheet

FIRE RETARDANT ADDITIVES

Zerogen® 50 SP

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006
COMMISSION REGULATION (EU) No. 2015/830

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

1.1. Product identifier

Product Name: Zerogen® 50 SP

Chemical Name Mixture

Chemical Name	CAS Number	EC No	REACH registration number	(CLP) Regulation (EC 1272/2008)	Weight-%
Magnesium hydroxide, surface treated	Proprietary Magnesium hydroxide CAS: 1309-42-8	*	01-2119488756-18-0040	Not classified	99-100

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

Recommended Use Flame retardant Smoke suppressant

1.3. Details of the supplier of the safety data sheet

E-mail hubermaterials@huber.com

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

EU Phone: +358 207 913 500 (J.M. Huber Finland Oy)

Poison control center phone number National Anti-Poison Center UK: +44 844 892 0111 (National Poisons Information Service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

(CLP) Regulation (EC 1272/2008) Not classified

Hazards identification

Physical Hazard Not classified

Health Hazards Not classified

Environmental Hazard Not classified

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Symbols/Pictograms	None
Signal Word	None
Hazard Statements	None

Precautionary Statements

Prevention	Employ good industrial hygiene practice Wash hands thoroughly after handling
Response	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
Storage	Keep in a dry place Store away from incompatible materials
Disposal	Disposal should be in accordance with applicable regional, national and local laws and regulations.

2.3. Other hazards No information available.**SECTION 3: Composition/information on ingredients****3.1. Substance** Not applicable**3.2. Mixture** Mixture

Chemical Name	CAS Number	EC No	REACH registration number	(CLP) Regulation (EC 1272/2008)	Annex	Weight-%
Magnesium hydroxide, surface treated	Proprietary Magnesium hydroxide CAS: 1309-42-8	*	01-2119488756-18-0040	Not classified	--	99-100

SECTION 4: First aid measures**4.1. Description of first aid measures**

General Advice	When in doubt or if symptoms are observed, get medical advice. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
Eye Contact	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

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Skin Contact	Wash with plenty of soap and water.
Inhalation	Do not breathe dust. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
Ingestion	Rinse mouth thoroughly with water.
Aspiration hazard	Based on available data, the classification criteria are not met.
Notes to Physician	Treat symptomatically.
4.2. Most important symptoms and effects, both acute and delayed	Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin.
4.3. Indication of any immediate medical attention and special treatment needed	Treat symptomatically. 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

Use extinguishing agent suitable for type of surrounding fire. Water spray (fog). Dry chemical. Foam. Carbon dioxide (CO₂).

Unsuitable Extinguishing Media

None known.

5.2. Special hazards arising from the substance or mixture

Non-combustible.

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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

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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
Ensure adequate ventilation
Handle in accordance with good industrial hygiene and safety practice
Use personal protective equipment as required

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, surface treated

ACGIH	10 mg/m ³ TWA
OSHA	10 mg/m ³
NIOSH	--

Recommended monitoring procedures Refer also to national guidance documents for information on currently recommended monitoring procedures

Biological Limit Values: None

No information available **DNEL/DMEL** No information available
and **PNEC** values

Predicted No Effect Concentration (PNEC) No information available

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8.2. Exposure controls

Engineering Measures

Do not handle until all safety precautions have been read and understood
Ensure adequate ventilation, especially in confined areas
Provide a good standard of controlled ventilation (10 to 15 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

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal hazards

None known.

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)
Melting Point / Melting Range	Not applicable
Initial boiling point and boiling range	Not applicable
Freezing Point	Not applicable
Flash Point:	Non-combustible.
Evaporation Rate	Not applicable.
Flammability (solid, gas)	Not applicable
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Relative Density	2.4 g/cm ³ , 20° C
Water Solubility	11.7 mg/l , 25° C
Partition coefficient	Not applicable
Autoignition Temperature	Not applicable

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Decomposition Temperature	626 °F (330° C)
Viscosity	Not applicable.
Specific Gravity	2.4 g/cm3, 20° C
VOC Content (%)	Not applicable

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	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.
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Information on Likely Routes of Exposure

Inhalation	Do not breathe dust Inhalation of dust may cause irritation of the respiratory system
Skin	Contact with dust can cause mechanical irritation or drying of the skin
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

Acute Toxicity	Not classified
Chronic Toxicity	Not classified.

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Respiratory Sensitization	Not classified
Serious eye damage/eye irritation	Not classified
Skin Corrosion/Irritation	Not classified
Skin Sensitization	Not classified
Mutagenicity	Not classified
Reproductive Toxicity	Not classified.
Carcinogenicity	No known carcinogens are present at greater than 0.1%.
Specific target organ toxicity - Single exposure	Not classified.
Specific target organ toxicity - Repeated exposure	Not classified.

SECTION 12: Ecological information

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

Magnesium hydroxide, surface treated

WGK Classification (AwSV) 5209. WGK: nwg

12.2. Persistence and degradability No data available.

12.3. Bioaccumulative potential No data available.

Partition coefficient Not applicable

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

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13.1. Waste treatment methods

Disposal Methods	Disposal should be in accordance with applicable regional, national and local laws and regulations.
Contaminated Packaging	Product residue may remain in empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal.
Waste codes	Waste codes should be assigned by the user based on the application for which the product was used

Magnesium hydroxide, surface treated

WGK Classification (AwSV) 5209. WGK: nwg

SECTION 14: Transport information**Mode of Transportation (Road, Water, Air, Rail)**

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

14.1. UN number	None
14.2. UN proper shipping name	None
14.3. Transport hazard class(es)	None
14.4. Packing group	None
14.5. Environmental hazards	No
14.6. Special precautions for user	Not applicable
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

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Global Inventories

Chemical Name	CAS Number	EC No	REACH registration number	Australia (AICS)	Canada (DSL)	China (IECSC)	Japan	S. Korea (KECL)	Mexico	New Zealand	Philippines (PICCS)	Taiwan	TSCA: United States
Magnesium hydroxide, surface treated	Proprietary Magnesium hydroxide CAS: 1309-42-8	*	01-211948 8756-18-0 040	Y	Y	Y	Y	Y	--	-	Y	Y	A

Legend X / Y: Complies ; A: Active ; - / N: Exempt / Not Listed

Magnesium hydroxide, surface treated

WGK Classification (AwSV) 5209. WGK: nwg

15.2. Chemical safety assessment

For this substance a chemical safety assessment has been carried out

SECTION 16: Other information

Reason for Revision This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 & COMMISSION REGULATION (EU) No. 2015/830

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(CLP) Regulation (EC 1272/2008) Not classified

Labeling

Symbols/Pictograms None

Signal Word None

Hazard Statements None

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
The Classification, Labeling and Packaging of Substances and Mixtures (CLP) Regulation (EC 1272/2008)

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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