



# Safety Data Sheet

FIRE RETARDANT ADDITIVES

## Vertex® 100SF

Prepared in accordance with GB/T 16483-2008, GB/T 24774-2009, GB 13690 – 2009, GB/T 17519–2013  
Globally Harmonized System (GHS)

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## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name:</b>	Vertex® 100SF
<b><u>Magnesium Hydroxide</u></b>	
CAS Number	1309-42-8
Weight-%	97-99
<b><u>Surface Treatment</u></b>	
CAS Number	Proprietary
Weight-%	1-3
<b>Recommended Use</b>	Smoke suppressant Flame retardant
<b>Uses advised against</b>	None known
<b>Company:</b>	J.M. Huber Corporation 3100 Cumberland Boulevard, Suite 600 Atlanta, GA 30339 USA Tel: +1 678 247-7300
<b>Emergency Telephone</b>	CHEMTREC: 1 800 424 9300 or International +1 703 527 3887
<b>E-mail</b>	hubermaterials@huber.com
<b>Internet</b>	www.hubermaterials.com

## Section 2: HAZARDS IDENTIFICATION

<b>GHS Classification</b>	Not classified
<b>Physical Hazard</b>	Not classified
<b>Health Hazard</b>	Not classified
<b>Environmental Hazard</b>	Not classified
<b>Label Elements</b>	
<b>Symbols/Pictograms</b>	None
<b>Signal Word</b>	None
<b>Hazard Statement</b>	None

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### Precautionary Statements

<b>Prevention</b>	Avoid release to the environment Avoid breathing dust. Use mechanical ventilation (dilution and local exhaust) to control exposure
<b>Response</b>	If skin irritation occurs: Get medical advice/attention
<b>Spills and Leaks</b>	Collect spillage
<b>Storage</b>	Store in a dry place Store in a well-ventilated place.
<b>Disposal</b>	Dispose in accordance with local, state and national regulations
<b>General Advice</b>	In case of doubt or when symptoms persist, seek medical attention.

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS Number	China (IECSC)	China classification	TSCA: United States	REACH registration number	Weight-%
Magnesium Hydroxide	1309-42-8	Y	Not classified as a dangerous goods/substances	A	01-2119488756-18-0040	97-99
Surface Treatment	Proprietary	Y		A	Exempt	1-3

## Section 4: FIRST AID MEASURES

<b>General Advice</b>	In case of doubt or when symptoms persist, seek medical attention.
<b>Eye Contact</b>	Hold eyelids apart and flush eyes with a steady, gentle stream of water for several minutes.
<b>Skin Contact</b>	Wash skin with soap and water
<b>Inhalation</b>	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing
<b>Notes to Physician</b>	Treat symptomatically
<b>Personal Protective Equipment For First Aid Responders</b>	Wear suitable protective clothing IF exposed or concerned: Get medical advice/attention
<b>Expected acute symptoms and delayed symptoms</b>	None known

## Section 5: FIRE FIGHTING MEASURES

<b>Flammable Properties</b>	None known
<b>Suitable Extinguishing Media</b>	All extinguishing media can be used. Use suitable media appropriate for the surrounding fire.
<b>Unsuitable extinguishing media:</b>	Not applicable
<b>Specific Hazards Arising from the Chemical</b>	Avoid dust formation. In the event of fire and/or explosion do not breathe fumes. The pressure in sealed containers can increase under the influence of heat. Use water spray to cool unopened containers.
<b>Unusual fire &amp; explosion hazards:</b>	None
<b>Protective measures:</b>	Use protective equipment that is appropriate for surrounding materials.
<b>Protective Equipment and Precautions for Firefighters</b>	Wear self-contained breathing apparatus and protective suit

## Section 6: SPILLAGE, ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Use personal protective equipment. Avoid dust formation. Avoid contact with skin, eyes and clothing. Avoid inhalation of dust. Ensure adequate ventilation. Avoid dust formation. Avoid inhalation of dust. Refer to Section 8 for personal protective equipment. Wet material on walking surfaces will be extremely slippery.
<b>Environmental Precautions</b>	Prevent from entering into soil, ditches, sewers and waterways.
<b>Methods for cleaning up</b>	Sweep or vacuum spilled material Dispose of according to local and regional authority requirements
<b>Other Information:</b>	None known

## Section 7: HANDLING AND STORAGE

<b>Handling</b>	Avoid contact with eyes and skin. Wear suitable personal protection equipment. Wash thoroughly after handling. Avoid conditions that generate airborne dust in handling, transfer and clean up. Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Do not breathe vapors/dust. Avoid contact with skin, eyes and clothing. Avoid dust formation. Avoid breathing dust. Handle in accordance with good industrial hygiene and safety practice.
<b>Storage</b>	Keep container tightly closed in a dry and well-ventilated place

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Exposure Limits</b>	Provide adequate ventilation as well as local exhaust at critical locations
<b>Magnesium Hydroxide</b>	
China	TWA: Not established
China	STEL: Not established
ACGIH	TLV-TWA: 8-hr : 10 mg/m <sup>3</sup> (total dust) 3 mg/m <sup>3</sup> (respirable fraction)
NIOSH	TWA: 15 mg/m <sup>3</sup> (total dust)
OSHA	TWA: 15 mg/m <sup>3</sup> total dust 5 mg/m <sup>3</sup> respirable
<b>Engineering Measures</b>	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
<b>Personal Protective Equipment</b>	
<b>Eye/Face Protection</b>	Wear safety glasses with side shields (or goggles)
<b>Skin and Body Protection</b>	Wear suitable protective clothing
<b>Hand Protection</b>	Protective gloves
<b>Respiratory Protection</b>	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
<b>Hygiene Measures</b>	Handle in accordance with good industrial hygiene and safety practice
<b>Environmental Exposure Controls</b>	Dispose of in accordance with local regulations

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### Appearance:

<b>Physical State</b>	Solid Powder
<b>Color</b>	White
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	No information available
<b>pH:</b>	8.4-10.2 (5% water suspension)
<b>Melting point / Freezing point</b>	662 °F (350 °C)
<b>Flash Point:</b>	Non-combustible.
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper flammability limit:</b>	
<b>Lower flammability limit:</b>	
<b>Vapor Density</b>	Not applicable

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Density	2.4 g/cm <sup>3</sup> , 20°C
Relative Density	2.4 g/cm <sup>3</sup> , 20° C
Water Solubility	11.7 mg/l , 25° C
Solubility in other solvents	No information available
Partition coefficient	No information available
Autoignition Temperature	No data available
Decomposition Temperature	626 °F (330° C)

## Section 10: STABILITY AND REACTIVITY

Stability	Stable under normal conditions
Conditions to avoid:	None
Incompatible materials	None known
Hazardous decomposition products	None under normal processing
Hazardous Reactions	None under normal processing
Hazardous polymerization:	None under normal processing

## Section 11: TOXICOLOGICAL INFORMATION

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

### Product Information

#### Information on Likely Routes of Exposure

Eyes	Dust contact with the eyes can lead to mechanical irritation
Skin	Prolonged or repeated contact may dry skin and cause irritation
Inhalation	Avoid inhalation of the product Inhalation of dust may cause irritation of the respiratory system
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

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Oral LD50	8500 mg/kg Rat
<u>Surface Treatment</u>	
Oral LD50	2830 µL/kg (rat)
Acute Toxicity	Not classified
Chronic Toxicity	Not classified.
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met
Skin Corrosion/Irritation	Based on available data, the classification criteria are not met
Reproductive Effects	This product does not contain any known or suspected reproductive hazards.
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

Ecotoxicity	Not considered to be harmful to aquatic life.
Persistence/Degradability:	No data available.
Bioaccumulative Potential	This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
Partition coefficient	No information available
Bioconcentration factor (BCF)	No data available.
Mobility in soil	No data available.
Results of PBT and vPvB assessment	This substance does not meet the criteria for classification as PBT or vPvB.
Other Adverse Effects	None known

## Section 13: DISPOSAL CONSIDERATIONS

Waste from Residues/Unused     Dispose of in accordance with local regulations

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**Products**

**Contaminated Packaging:** Dispose of container and unused contents in accordance with federal, state and local requirements

## Section 14: TRANSPORT INFORMATION

**Mode of Transportation (Road, Water, Air, Rail)**

<b>DOT</b>	Not regulated
<b>ADR</b>	Not regulated
<b>RID</b>	Not regulated
<b>ADN</b>	Not regulated
<b>IATA</b>	Not regulated
<b>IMDG/IMO</b>	Not regulated
<b>ICAO</b>	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****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	1309-42-8	215-170-3	01-211948875 6-18-0040	Y	Y	Y	(1)-386 (ENCS) (ISHL)	KE-22716	Y	Y	Y	Y	A
Surface Treatment	Proprietary	*	Exempt	Y	Y	Y	Y	Y	N	Y	Y	Y	A

**Legend**

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

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## Section 16: OTHER INFORMATION

<b>Prepared by</b>	Huber Engineered Materials Global Regulatory Affairs email: regulatory.affairs@huber.com
<b>Reason for Revision</b>	GB/T 16483-2008 GB/T 24774-2009 GB 13690 – 2009 GB/T 17519–2013
<b>GHS Classification</b>	Not classified
<b>Physical Hazard</b>	Not classified
<b>Health Hazard</b>	Not classified
<b>Environmental Hazard</b>	Not classified
<b>Label Elements</b>	
<b>Symbols/Pictograms</b>	None
<b>Signal Word</b>	None
<b>Hazard Statement</b>	None
<b>Abbreviations and acronyms</b>	<p>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)</p>

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**End of Safety Data Sheet**