



Safety Data Sheet

FIRE RETARDANT ADDITIVES

Vertex® 100SF

Globally Harmonized System (GHS)

Issue Date: 04/Mar/2021
Print Date: 04/Mar/2021

Revision Number: 1.4.1

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

1.1. Product identifier

Product Name: Vertex® 100SF

Chemical Name	CAS Number	REACH registration number	TSCA: United States	GHS Classification	Weight-%
Magnesium Hydroxide	1309-42-8	01-2119488756-18-0040	A	Not classified.	97-99
Surface Treatment	Proprietary		A	Not classified.	1-3

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

Recommended Use: Smoke suppressant Flame retardant

Uses advised against: None known.

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: huber.europe@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

GHS Classification: This product is not classified as hazardous according to the UN GHS guideline and labeling is not required

Hazards identification

PAGE HEADER-HEM

HUBER

Safety Data Sheet Vertex® 100SF

Issue Date: 04/Mar/2021
Print Date: 04/Mar/2021

Revision Number: 1.4.1
Page 2 of 10

Physical Hazard Not classified.

Health Hazards Not classified

Environmental Hazard Not classified.

2.2. Label elements

Symbols/Pictograms None

Signal Word None

Precautionary Statements

Prevention Employ good industrial hygiene practice
Do not breathe dust

Response IF ON SKIN: Wash with plenty of soap and water
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Storage Keep in a dry place.

Disposal Dispose of contents/containers in accordance with local regulations. See Section 13: DISPOSAL CONSIDERATIONS.

2.3. Other hazards No information available.

SECTION 3: Composition/information on ingredients

Chemical Name	CAS Number	REACH registration number	GHS Classification	Weight-%
Magnesium Hydroxide	1309-42-8	01-2119488756-18-0040	Not classified.	97-99
Surface Treatment	Proprietary	Exempt	Not classified.	1-3

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.

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

PAGE HEADER-HEM

HUBER

Safety Data Sheet Vertex® 100SF

Issue Date: 04/Mar/2021

Print Date: 04/Mar/2021

Revision Number: 1.4.1

Page 3 of 10

	position comfortable for breathing.
Ingestion	Rinse mouth thoroughly with water.
Aspiration hazard	Not an expected route of exposure.
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.

PAGE HEADER-HEM

HUBER

Safety Data Sheet Vertex® 100SF

Issue Date: 04/Mar/2021

Print Date: 04/Mar/2021

Revision Number: 1.4.1

Page 4 of 10

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

Exposure Limits Provide adequate ventilation as well as local exhaust at critical locations

Magnesium Hydroxide

ACGIH	TLV-TWA: 8-hr : 10 mg/m ³ (total dust) 3 mg/m ³ (respirable fraction)
OSHA	TWA: 15 mg/m ³ total dust 5 mg/m ³ respirable
Australia	Not established
China	TWA: Not established
China	STEL: Not established
India	TWA: Not established
Korea	TWA: Not established
Korea	STEL: Not established
Mexico	TWA/OEL (VLE-PPT): Not established
New Zealand	Not established
Taiwan	OEL: Not established

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

HUBER

Safety Data Sheet
Vertex® 100SF

Issue Date: 04/Mar/2021

Print Date: 04/Mar/2021

Revision Number: 1.4.1

Page 5 of 10

Personal Protective Equipment

Eye/Face Protection	Wear safety goggles with side protection
Skin and Body Protection	Wear suitable protective clothing
Hand Protection	Protective gloves
Respiratory Protection	When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice
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 / Freezing point	662 °F (350 °C)
Flash Point:	Non-combustible.
Evaporation Rate	Not determined.
Flammability (solid, gas)	Not applicable
Upper flammability limit:	
Lower flammability limit:	
Vapor Density	Not applicable
Density	2.4 g/cm ³ , 20°C
Relative Density	2.4 g/cm ³ , 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

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

HUBER

Safety Data Sheet
Vertex® 100SF

Issue Date: 04/Mar/2021
Print Date: 04/Mar/2021

Revision Number: 1.4.1
Page 6 of 10

- 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
Inhalation of dust may cause irritation of the respiratory system
- 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

Surface Treatment

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.

HUBER

Safety Data Sheet
Vertex® 100SF

Issue Date: 04/Mar/2021
Print Date: 04/Mar/2021

Revision Number: 1.4.1
Page 7 of 10

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 (AwSV) 5209 WGK: nwg

12.2. Persistence and degradability No data available.

12.3. Bioaccumulative potential No data available.

Partition coefficient No information 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.

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

European Waste Catalog 060299
WGK Classification (AwSV) 5209 WGK: nwg

PAGE HEADER-HEM

HUBER

Safety Data Sheet Vertex® 100SF

Issue Date: 04/Mar/2021
Print Date: 04/Mar/2021

Revision Number: 1.4.1
Page 8 of 10

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

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	01-211948 8756-18-0 040	Y	Y	Y	(1)-386 (ENCS) (ISHL)	KE-22716	Y	Y	Y	Y	A
Surface Treatment	Proprietary	*		Y	Y	Y	Y	Y	N	Y	Y	Y	A

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

Not considered to be harmful to aquatic life

PAGE HEADER-HEM

HUBER

Safety Data Sheet Vertex® 100SF

Issue Date: 04/Mar/2021

Print Date: 04/Mar/2021

Revision Number: 1.4.1

Page 9 of 10

Magnesium Hydroxide

WGK Classification (AwSV) 5209 WGK: nwg

15.2. Chemical safety assessment

SECTION 16: Other information

Prepared by	CP Kelco Global Regulatory Affairs Email: Regulatory.Affairs@cpkelco.com.
GHS Classification	This product is not classified as hazardous according to the UN GHS guideline and labeling is not required
Symbols/Pictograms	None
Signal Word	None
Hazard Statements	None
Hazards identification	
Physical Hazard	Not classified
Health Hazards	Not classified
Environmental Hazard	Not classified
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)

PAGE HEADER-HEM

HUBER

Safety Data Sheet Vertex® 100SF

Issue Date: 04/Mar/2021

Print Date: 04/Mar/2021

Revision Number: 1.4.1

Page 10 of 10

Globally Harmonized System (GHS)

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End of Safety Data Sheet