



**Vertex® 100 ST1**

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006  
COMMISSION REGULATION (EU) No. 2020/878

Issue Date 20/Feb/2023  
Print Date 21/Aug/2024

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

**1.1. Product identifier**

**Product Name:** Vertex® 100 ST1  
**Pure substance/mixture** Mixture

**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**

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

**Internet** [www.huberadvancedmaterials.com](http://www.huberadvancedmaterials.com)

**Contact E-Mail** [www.huberadvancedmaterials.com/contact](http://www.huberadvancedmaterials.com/contact)

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

**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.

**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** 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** --

**3.2. Mixture** Mixture

Chemical Name	CAS Number	EC No	(CLP) Regulation (EC 1272/2008)	Weight-%
Magnesium Hydroxide	1309-42-8	215-170-3	Not classified.	97-99
Surface Treatment	Proprietary	-	Not classified.	1-3

## 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)

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involved and take precautions to protect themselves. When in doubt or if 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.

### Inhalation

Do not breathe dust. If breathing is difficult, remove victim 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

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

Use extinguishing agent suitable for type of surrounding fire. Water spray (fog). Dry chemical. Foam. Carbon dioxide (CO<sub>2</sub>).

#### 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.

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## 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.

**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

**7.3. Specific end use(s)** See Section 1.2.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

#### Magnesium Hydroxide

ACGIH	TLV-TWA: 8-hr : 10 mg/m <sup>3</sup> (total dust) 3 mg/m <sup>3</sup> (respirable fraction)
OSHA	TWA: 15 mg/m <sup>3</sup> total dust 5 mg/m <sup>3</sup> respirable
NIOSH	TWA: 15 mg/m <sup>3</sup> (total dust)

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

**Biological Limit Values** None

### 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** In case of inadequate ventilation wear respiratory protection.

**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 / Freezing point	Not applicable
Freezing Point	Not applicable
Flash Point	Non-combustible
Evaporation Rate	Not determined.
Flammability (solid, gas)	Not applicable

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Upper flammability limit:	--
Lower flammability limit:	--
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Density	No data available
Relative Density	No data available
Water Solubility	Insoluble
Solubility in other solvents	No data available
Partition coefficient	No data available
Autoignition Temperature	Not applicable
Decomposition Temperature	Not applicable
Viscosity	No information available.
Kinematic viscosity	Not applicable
Oxidizing Properties	Not applicable
Particle Size	No information available
VOC Content (%)	Not applicable

## 9.2. Other information

### 9.2.1. Information with regard to physical hazard classes

Not applicable

### 9.2.2. Other safety characteristics

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	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.

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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## Magnesium Hydroxide

LD50s and LC50s

Oral LD50

2.1 mg/L Inhalation LC50 Rat 4 h

8500 mg/kg Rat

## Surface Treatment

Oral LD50

4600 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.

**Serious eye damage/eye irritation** Based on available data, the classification criteria are not met.

**Skin Sensitization** Based on available data, the classification criteria are not met.

**Carcinogenicity** Based on available data, the classification criteria are not met.

**Target Organ Effects** Based on available data, the classification criteria are not met.

## Information on Likely Routes of Exposure

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

## 11.2. Information on other hazards

**11.2.1. Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors

**11.2.2. Other information** Not applicable

## SECTION 12: Ecological information

**12.1. Toxicity** Not considered to be harmful to aquatic life

## Magnesium Hydroxide

**WGK Classification (AwSV)** 5209 WGK: nwg

## Surface Treatment

**WGK Classification (AwSV)** 661: WGK: nwg

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<b>12.2. Persistence and degradability</b>	No data available.
<b>12.3. Bioaccumulative potential</b>	No data available.
<b>Partition coefficient</b>	No data available
<b>Bioconcentration factor (BCF)</b>	No data available.
<b>12.4. Mobility in soil</b>	No data available.
<b>12.5. Results of PBT and vPvB assessment</b>	No data available.
<b>12.6. Endocrine disrupting properties</b>	This product does not contain any known or suspected endocrine disruptors

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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

#### Magnesium Hydroxide

<b>European Waste Catalog</b>	060299
<b>WGK Classification (AwSV)</b>	5209 WGK: nwg

#### Surface Treatment

<b>WGK Classification (AwSV)</b>	661: WGK: nwg
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## SECTION 14: Transport information

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

<b>TDG -Canada</b>	Not regulated
<b>DOT</b>	Not regulated
<b>ADR</b>	Not regulated
<b>ADN</b>	Not regulated



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IATA Not regulated  
 IMDG/IMO Not regulated  
 ICAO Not regulated

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. Maritime transport in bulk according to IMO instruments  
 Not applicable

## SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

### Global Inventories

Pure substance/mixture

Mixture

Chemical Name	CAS Number	EC No	Australia (AIC)	Canada (DSL)	China (IECSC)	Japan	S. Korea (KECL)	Mexico	Thailand (TECI)	New Zealand	Philippines (PICCS)	Taiwan	TSCA: United States
Magnesium Hydroxide	1309-42-8	215-170-3	Y	Y	Y	(1)-386 (ENCS) (ISHL)	KE-22716	Y	55-1-01344	Y	Y	Y	A
Surface Treatment	Proprietary	-	Y	Y	Y	(2)-609 (2)-608 (ENCS)(ISHL)	KE-26333	Y	55-1-04500	Y	Y	Y	A

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

### REACH No.

#### Magnesium Hydroxide

EU REACH registration number 01-2119488756-18-0040

Turkish KKDIK pre-registration 05-0000192735-90-0000

#### Surface Treatment

EU REACH registration number --

### Germany

Not considered to be harmful to aquatic life

#### Magnesium Hydroxide

WGK Classification (AwSV) 5209 WGK: nwg

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## Surface Treatment

WGK Classification (AwSV) 661: WGK: nwg

## 15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance

## 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. 2020/878

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**Prepared by** Huber Engineered Materials Global Regulatory Affairs  
email: regulatory.affairs@huber.com.

**(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

IARC (International Agency for Research on Cancer)  
 IUCLID (International Uniform Chemical Information Database)  
 WHMIS (Workplace Hazardous Materials Information System)  
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)  
 TWA (Time-Weighted Average)  
 CLP (The Classification, Labeling and Packaging of Substances and Mixtures Regulation (EC 1272/2008))  
 PPE (Personal Protection Equipment)  
 NIOSH (National Institute for Occupational Safety and Health)  
 CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)  
 RQ (Reportable Quantity) (RQ/% in mixture)  
 STEL (Short Term Exposure Limit)  
 TLV® (Threshold Limit Value)  
 DNEL (Derived No Effect Level)  
 SVHC (Substances of Very High Concern)  
 BOD (Biochemical oxygen demand)  
 COD (Chemical oxygen demand)  
 ICAO (International Civil Aviation Organization)  
 IMDG (International Maritime Dangerous Goods)  
 ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
 RID (Agreement Concerning the International Carriage of Dangerous Goods by Rail)  
 IATA (International Air Transport Association)  
 IMDG (International Maritime Dangerous Goods)  
 DOT (Department of Transportation)  
 TDG (Transport of Dangerous Goods) Canada  
 PNEC (Predicted No Effect Concentration)

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SCBA (Self-Contained Breathing Apparatus) Positive Pressure

GHS (Globally Harmonized System)

TSCA (Toxic Substances Control Act)

## Disclaimer

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**End of Safety Data Sheet**