



FIRE RETARDANT ADDITIVES

# Safety Data Sheet

## Vertex® 100

GHS (Globally Harmonized System)

Issue Date 15/Nov/2022

Print Date 15/Nov/2022

Revision Number 1.4.1

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

### 1.1. Product identifier

Product Name: Vertex® 100

Chemical Name Magnesium Hydroxide

Pure substance/mixture Substance

Chemical Name	CAS Number	EU REACH registration number	TSCA: United States	GHS Classification	Weight-%
Magnesium Hydroxide	1309-42-8	01-2119488756-18-0040	A	Not classified.	100

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

Recommended Use 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](http://www.hubermaterials.com)

E-mail [huber.europe@huber.com](mailto: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

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#### Hazards identification

**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

**Pure substance/mixture** Substance

Chemical Name	CAS Number	EU REACH registration number	GHS Classification	Weight-%
Magnesium Hydroxide	1309-42-8	01-2119488756-18-0040	Not classified.	100

### 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 symptoms are observed, get medical advice.  
**Eye Contact** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

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	lenses, if present and easy to do. Continue rinsing.
<b>Skin Contact</b>	Wash with plenty of soap and water.
<b>Inhalation</b>	Do not breathe dust. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
<b>Ingestion</b>	Rinse mouth thoroughly with water.
<b>Aspiration hazard</b>	Not an expected route of exposure.
<b>Notes to Physician</b>	Treat symptomatically.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin.
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>	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 (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.

## SECTION 6: Accidental release measures

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#### 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

## 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<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

###### 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

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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 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)

##### Freezing Point

Not applicable

##### Flash Point

Non-combustible

##### Evaporation Rate

Not applicable.

##### Flammability (solid, gas)

Not applicable

##### Upper flammability limit:

##### Lower flammability limit:

##### Vapor Density

Not applicable

##### Density

2.4 g/cm<sup>3</sup>, 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

##### Decomposition Temperature

626 °F (330° C)

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under normal conditions

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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.
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 -	No information available.

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Single exposure

Specific target organ toxicity - No information available.  
Repeated exposure

## 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 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.

**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

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European Waste Catalog 060299  
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

#### Global Inventories

Pure substance/mixture Substance

Chemical Name	CAS Number	EC No	Australia (AIIIC)	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	55-1-01343	Y	Y	Y	A

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



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#### REACH No.

#### Magnesium Hydroxide

EU REACH registration number 01-2119488756-18-0040  
Turkish KKDIK pre-registration 05-0000192735-90-0000

#### Germany

Not considered to be harmful to aquatic life

#### Magnesium Hydroxide

WGK Classification (AwSV) 5209 WGK: nwg

#### 15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance

### 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	IARC (International Agency for Research on Cancer) IATA (International Air Transport Association) IMDG (International Maritime Dangerous Goods) IUCLID (International Uniform Chemical Information Database) WHMIS (Workplace Hazardous Materials Information System) DOT (Department of Transportation) 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) TDG (Transport of Dangerous Goods) Canada

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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)  
SCBA (Self-Contained Breathing Apparatus) Positive Pressure  
GHS (Globally Harmonized System)  
SARA (Superfund Amendments and Reauthorization Act of 1986)  
TSCA (Toxic Substances Control Act)

**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**