



FIRE RETARDANT ADDITIVES

# SAFETY DATA SHEET

## Vertex® 100 SP

MOL No. 2009-68 Standards for Classification and Labeling of Chemical Substances and Material Safety Data Sheet (MSDS)

Issue Date: 10/Apr/2018

Print Date: 10/Apr/2018

Revision Number: 1.3

Page 1 of 8

### Section 1: PRODUCT AND COMPANY IDENTIFICATION

A. Product name Vertex® 100 SP

Chemical Name Mixture

**Magnesium hydroxide, surface treated**

CAS Number Proprietary  
Magnesium hydroxide CAS: 1309-42-8

Weight-% 99-100

**B. Recommended use and Limitations on use**

Recommended Use flame retardant Smoke suppressant

**C. Supplier information**

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### Section 2: HAZARDS IDENTIFICATION

**A. Hazard category/Classification**

Physical Hazards Not classified

Health Hazards Not classified

Environmental Hazards Not classified

**B. Warning label items including precautionary statement**

Label Elements

Symbols/Pictograms None

Issue Date: 10/Apr/2018

Print Date: 10/Apr/2018

Revision Number: 1.3

Page 2 of 8

**Signal Words** None**Hazard Statements** None**Precautionary statement****Prevention** Employ good industrial hygiene practice**Response** Wash skin with soap and water**Storage** Store away from incompatible materials**Disposal** Disposal should be in accordance with applicable regional, national and local laws and regulations**C. Other hazards not included in the hazard category criteria (e.g. dust explosion hazard)**

None known

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS Number	S. Korea (KECL)	Korean GHS Classification	TSCA: United States	Weight-%
Magnesium hydroxide, surface treated	Proprietary Magnesium hydroxide CAS: 1309-42-8	Y	Not classified	Y	99-100

**Legend**

X / Y: Complies , - / N: Not Listed , Exempt

**Section 4: FIRST AID MEASURES****A. In case of eye contact** Rinse with water. Get medical attention if irritation develops and persists.**B. In case of skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.**C. In case of inhalation** Move to fresh air. Call a physician if symptoms develop or persist.**D. In case of swallowing** Rinse mouth. Get medical attention if symptoms occur.**E. Note to physician** Treat symptomatically.**Section 5: FIRE FIGHTING MEASURES****A. Suitable (and unsuitable) extinguishing media****Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).**Unsuitable extinguishing** None known

Issue Date: 10/Apr/2018

Print Date: 10/Apr/2018

Revision Number: 1.3

Page 3 of 8

media

**B. Specific hazards arising from the chemical (example: hazardous combustion products)****Explosion hazard:** None known**C. Specific methods of fire-fighting**

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. In the event of fire and/or explosion do not breathe fumes. Move container from fire area if it can be done without risk.

**Section 6: SPILLAGE, ACCIDENTAL RELEASE MEASURES**

**A. Personal precautions, protective equipment and emergency measures** Ensure adequate ventilation. Avoid dust formation. See section 8 for more information.

**B. Environmental precautions** Not considered to be harmful to aquatic life. Avoid discharge into drains, water courses or onto the ground.

**C. Methods and materials for containment and cleaning up** Vacuum or sweep material and place in a disposal container.

**Section 7: HANDLING AND STORAGE****A. Precautions for safe handling**

In case of exposure to environments exceeding the occupational exposure limit, wear a respirator in compliance with national legislation.

**B. Conditions for safe storage (including any incompatibilities)**

Keep container tightly closed in a dry and well-ventilated place

**Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION****A. Exposure limit values, biological limit values, etc****Magnesium hydroxide, surface treated**

ACGIH	10 mg/m <sup>3</sup> TWA
OSHA	10 mg/m <sup>3</sup>

**B. Engineering 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

Issue Date: 10/Apr/2018

Print Date: 10/Apr/2018

Revision Number: 1.3

Page 4 of 8

**C. Personal protective equipment**

- **Eye protection** If contact is likely, safety glasses with side shields are recommended.
- **Hand protection** For prolonged or repeated skin contact use suitable protective gloves.
- **Body protection** Wear suitable protective clothing.

**Hygiene Measures**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

<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 / Melting Range</b>	Not applicable
<b>Initial boiling point and boiling range</b>	Not applicable
<b>Freezing Point</b>	Not applicable
<b>Flash Point:</b>	Non-combustible
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper flammability limit:</b>	Not applicable
<b>Lower flammability limit:</b>	Not applicable
<b>Vapor Pressure</b>	Not applicable
<b>Vapor Density</b>	Not applicable
<b>Relative Density</b>	2.4 g/cm <sup>3</sup> , 20° C
<b>Water Solubility</b>	11.7 mg/l , 25° C
<b>Solubility in other solvents</b>	
<b>Partition coefficient</b>	Not applicable
<b>Autoignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	626 °F (330° C)
<b>Viscosity</b>	Not applicable
<b>Kinematic viscosity</b>	No data available.
<b>Specific Gravity</b>	2.4 g/cm <sup>3</sup> , 20° C
<b>VOC Content (%)</b>	Not applicable

**Section 10: STABILITY AND REACTIVITY****A. Stability and hazardous reaction potential**

**Stability** Stable under normal conditions

**Hazardous reaction** None known

Issue Date: 10/Apr/2018

Print Date: 10/Apr/2018

Revision Number: 1.3

Page 5 of 8

potential

**B. Conditions to avoid (e.g. static discharge, shock or Vibration, etc)** Avoid creating dust. Incompatible materials.

**C. Incompatible materials** Strong oxidizing agents

**D. Hazardous decomposition products** No hazardous decomposition products are known.

## Section 11: TOXICOLOGICAL INFORMATION

### A. Information on likely routes of exposure

- **Mouth** Not an expected route of exposure
- **Eyes** Dust contact with the eyes can lead to mechanical irritation
- **Skin** Prolonged skin contact may cause temporary irritation.

### B. Information on health hazards

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

## Section 12: ECOLOGICAL INFORMATION

### A. Ecotoxicity

Issue Date: 10/Apr/2018

Print Date: 10/Apr/2018

Revision Number: 1.3

Page 6 of 8

**Hazardous to the aquatic environment, acute hazard**Not classified  
Avoid runoff to waterways and sewers**Hazardous to the aquatic environment, long-term hazard**Not classified  
Avoid runoff to waterways and sewers**B. Persistence/degradability** No data available**C. Bioaccumulative potential** No data available**D. Mobility in soil** No data available**E. Other adverse effects** No data available

### Section 13: DISPOSAL CONSIDERATIONS

**A. Method of disposal**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

**B. Disposal considerations (including disposal of contaminated containers or packaging)** Disposal should be in accordance with applicable regional, national and local laws and regulations

### Section 14: TRANSPORT INFORMATION

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

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

Issue Date: 10/Apr/2018

Print Date: 10/Apr/2018

Revision Number: 1.3

Page 7 of 8

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

### National Regulations

#### Magnesium hydroxide, surface treated

CAS Number Proprietary  
Magnesium hydroxide CAS: 1309-42-8  
Weight-% 99-100  
Korean GHS Classification Not classified

### Other domestic and foreign regulations

#### 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	Y

#### Legend

X / Y: Complies , - / N: Not Listed , Exempt

## Section 16: OTHER INFORMATION

### A. Source of Information

#### 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)  
PPE - Personal Protection Equipment  
NIOSH - National Institute for Occupational Safety and Health

# Safety Data Sheet

Vertex® 100 SP

Issue Date: 10/Apr/2018

Print Date: 10/Apr/2018

Revision Number: 1.3

Page 8 of 8

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)

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Print Date: 10/Apr/2018

C. Number of revisions and Date 1.3  
of most recent revision

## D. Other

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**End of Safety Data Sheet**