



# Safety Data Sheet

FIRE RETARDANT ADDITIVES

## Micral® 1500

OSHA HazCom Standard 29 CFR 1910.1200(g) and GHS Rev 03  
Canadian Workplace Hazardous Material Information System (WHMIS) 2015  
Mexico NOM-018-STPS-2000; NOM-018-STPS-2015  
Globally Harmonized System (GHS)

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

### 1.1. Product identifier

Product Name: Micral® 1500

Pure substance/mixture: Substance

#### Aluminum Hydroxide

CAS Number: 21645-51-2

Weight-%: 100

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

Recommended Use: Flame retardant.

### 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: [hubermaterials@huber.com](mailto:hubermaterials@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

OSHA Regulatory Status: This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Physical Hazards: Not classified

Health Hazards: Not classified

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Environmental Hazard Not classified

## 2.2. Label elements

Symbols/Pictograms None

Signal Word None

Hazard Statements None

Hazard Statements None

## Precautionary Statements

**Prevention** Employ good industrial hygiene practice  
Do not handle until all safety precautions have been read and understood.  
Do not breathe dust  
Wear protective gloves/protective clothing/eye protection/face protection

**Response** IF ON SKIN: Wash with plenty of soap and water

**Storage** Store away from incompatible materials

**Disposal** Dispose of contents/containers in accordance with local regulations

**Additional Information:** None.

**Hazards not otherwise classified (HNOC)** Not classified.

## SECTION 3: Composition/information on ingredients

Pure substance/mixture Substance

Chemical Name	CAS Number	TSCA: United States	Canada (DSL)	Mexico	REACH registration number	OSHA Regulatory Status	WHMIS	Weight-%
Aluminum Hydroxide	21645-51-2	Y	Y	Y	01-211952924 6-39-0016	Not classified	Not regulated	100

**Legend**

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

## 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** 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>Ingestion</b>	Rinse mouth thoroughly with water.
<b>Inhalation</b>	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
<b>Aspiration hazard</b>	Not an expected route of exposure.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	Signs and symptoms may include coughing, gasping, choking and difficulty breathing.
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>	Treatment should be symptomatic and supportive.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable Extinguishing Media

Water spray (fog). Foam. Dry chemical. Carbon dioxide (CO<sub>2</sub>).

#### Unsuitable Extinguishing Media

None known.

### 5.2. Special hazards arising from the substance or mixture

None known.

### 5.3. Advice for firefighters

#### Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

#### Fire-fighting measures

In case of fire and/or explosion do not breathe fumes.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protection recommended in Section 8. Avoid dust formation. Keep unauthorized personnel away.

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**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** Minimize dust generation and accumulation. Provide local exhaust ventilation. Handle in accordance with good industrial hygiene and safety practice.

**7.2. Conditions for safe storage, including any incompatibilities** Store away from incompatible materials. Keep container tightly closed and dry.

**7.3. Specific end use(s)** Flame retardant.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

##### Aluminum Hydroxide

OSHA	TWA: 15 mg/m <sup>3</sup> Total Dust 5 mg/m <sup>3</sup> Respirable Dust
ACGIH	TLV/TWA 8-hr: 1 mg/m <sup>3</sup> (respirable fraction)
NIOSH	TWA: 5 mg/m <sup>3</sup> (respirable dust); 10 mg/m <sup>3</sup> TWA (total dust)
Canada - BC TWA	TWA: 1 mg/m <sup>3</sup> (respirable)
Canada - Manitoba - OEL - TWA	TWA: 1 mg/m <sup>3</sup> (respirable)
Canada - Newfoundland & Labrador - OEL - TWA	TWA: 1 mg/m <sup>3</sup> (respirable)
Canada - Nova Scotia - OEL - TWA	TWA: 1 mg/m <sup>3</sup> (respirable)
Canada - Prince Edward Island - OEL - TWA	TWA: 1 mg/m <sup>3</sup> (respirable)
Mexico	No se ha establecido

**Biological Limit Values:** None

**Derived No Effect Level (DNEL)** Consumer - oral, long-term - local and systemic 4.74 mg/kg bw/day

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Worker - inhalative, long-term - local and systemic 10.74 mg/m<sup>3</sup>**Predicted No Effect  
Concentration (PNEC)**

No information available

**8.2. Exposure controls****Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Provide a good standard of controlled ventilation (10 to 15 air changes per hour).

**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**

Follow general hygiene considerations recognized as common good workplace practices. The worker should wash daily at the end of each work shift, and prior to eating, drinking, smoking, etc.

**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

**Odor**

Odorless

**Odor Threshold**

No information available

**pH:**

8.4 - 10.2 5% Water suspension

**Melting point / Freezing point**

ca 300 °C / 572 °F (1013 kPa)

**Initial boiling point**

5396 °F (2980 °C) 101,3 kPa

**Flash Point:**

Not applicable.

**Evaporation Rate**

Not applicable.

**Flammability (solid, gas)**

Not applicable

**Upper flammability limit:****Lower flammability limit:****Vapor Pressure**

Not applicable

**Vapor Density**

Not applicable

**Relative Density**2.4 g/cm<sup>3</sup>, 20° C**Water Solubility**

Insoluble

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<b>Solubility in other solvents</b>	No information available
<b>Partition coefficient</b>	No information available
<b>Autoignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	392 °F (200 °C)
<b>Viscosity</b>	Not applicable.
<b>Explosive Properties</b>	None
<b>Oxidizing Properties</b>	Not applicable
<b>VOC Content (%)</b>	Not applicable

## SECTION 10: Stability and reactivity

<b>10.1. Reactivity</b>	None
<b>10.2. Chemical stability</b>	Stable under normal conditions
<b>10.3. Possibility of hazardous reactions</b>	None under normal processing
<b>10.4. Conditions to avoid</b>	Incompatible materials.
<b>10.5. Incompatible materials</b>	Strong acids
<b>10.6. Hazardous decomposition products</b>	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

<b>Inhalation</b>	Do not breathe dust Inhalation of dust in high concentration may cause irritation of respiratory system
<b>Skin</b>	Contact with dust can cause mechanical irritation or drying of the skin
<b>Eyes</b>	Dust contact with the eyes can lead to mechanical irritation
<b>Ingestion</b>	Ingestion is not a likely route of exposure
<b>Aspiration hazard</b>	Not an expected route of exposure.

### 11.1. Information on toxicological effects

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<b>Oral LD50</b>	> 2000 mg/kg Rat
<b>Inhalation LC50</b>	Rat > 2.3 mg/l (Al <sub>2</sub> O <sub>3</sub> ) Aerosol Maximum attainable concentration
<b>IARC</b>	Not Listed

<b>Acute Toxicity</b>	Based on available data, the classification criteria are not met
<b>Chronic Toxicity</b>	Based on available data, the classification criteria are not met.
<b>Chronic Effects</b>	Based on available data, the classification criteria are not met.
<b>Respiratory Sensitization</b>	No information available
<b>Serious eye damage/eye irritation</b>	Non-irritant Rabbit
<b>Skin Corrosion/Irritation</b>	Non-irritant Rabbit
<b>Skin Sensitization</b>	Based on available data, the classification criteria are not met Not a skin sensitizer Guinea pig
<b>Mutagenicity</b>	in vitro Not genotoxic in bacteria and mammalian cell systems. in vivo Mutagenicity (micronucleus test) Rat Negative (weight of evidence approach)
<b>Germ cell mutagenicity</b>	No information available.
<b>Reproductive Effects</b>	Based on available data, the classification criteria are not met.
<b>Reproductive Toxicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity - Single exposure</b>	Not classified.
<b>Specific target organ toxicity - Repeated exposure</b>	No information available.
<b>Mixture versus substance information</b>	No information available

## SECTION 12: Ecological information

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

### Aluminum Hydroxide

**WGK Classification (VwVwS)** 5220 WKG: nwg

**12.2. Persistence and** The methods for determining biodegradability are not applicable to inorganic

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<b>degradability</b>	substances.
<b>12.3. Bioaccumulative potential</b>	Not likely to bioaccumulate.
<b>Partition coefficient</b>	No information available
<b>Bioconcentration factor (BCF)</b>	Not available.
<b>12.4. Mobility in soil</b>	No information available.
<b>12.5. Results of PBT and vPvB assessment</b>	This substance does not meet the criteria for classification as PBT or vPvB.
<b>12.6. Other adverse effects</b>	No information available

## 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>	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

#### Aluminum Hydroxide

<b>European Waste Catalog</b>	060299
<b>WGK Classification (VwVwS)</b>	5220 WKG: nwg

## 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>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



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- 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

### Global Inventories

Pure substance/mixture Substance

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
Aluminum Hydroxide	21645-51-2	244-492-7	01-211952 9246-39-0 016	Y	Y	Y	Y	KE-00980	Y	Y	Y	Y	Y

**Legend**

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

### US Federal Regulations

#### EPA

##### **CERCLA**

##### Aluminum Hydroxide

CERCLA Not listed  
SARA 311/312 Hazardous Categorization Not listed  
SARAH 302 RQ, lbs Not listed

##### **SARA 304**

Not regulated

##### **CWA (Clean Water Act)**

Not regulated

##### **CAA (Clean Air Act)**

Not regulated

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### U.S. State Right-to-Know Regulations

Chemical Name	CAS Number	California Proposition 65	California CPR	Massachusetts	Minnesota	New Jersey	Pennsylvania
Aluminum Hydroxide	21645-51-2	No		No	No	No	No

### California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65)

This product does not contain any Proposition 65 chemicals

### CANADA

#### **WHMIS:**

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR

#### Aluminum Hydroxide

Not regulated

## SECTION 16: Other information

<b>Prepared by</b>	Huber Engineered Materials (HEM) Global Regulatory Affairs regulatory.affairs@huber.com
<b>Issue Date:</b>	19/Jun/2018
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<b>Revision Number:</b>	1.3
<b>Reason for Version</b>	OSHA (Occupational Safety and Health Administration of the US Department of Labor).
<b>Training Advice</b>	Do not handle until all safety precautions have been read and understood.
<b>Abbreviations and acronyms</b>	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)

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Predicted No Effect Concentration (PNEC)  
Globally Harmonized System (GHS)

### 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**