



**Onyx Elite® 111**

OSHA HCS 2024  
Canadian Workplace Hazardous Material Information System (WHMIS) 2015 rev 2022  
Mexico NOM-018-STPS-2000; NOM-018-STPS-2015  
GHS (Globally Harmonized System)

**Issue Date** 21/Feb/2023  
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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product Name:** Onyx Elite® 111  
**Pure substance/mixture** Substance  
**Chemical Name** Aluminium Hydroxide

**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.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

**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)

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

**Physical Hazards** Not classified.

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**Health Hazards** Not classified.

**Environmental Hazard** Not classified.

### 2.2. Label elements

**Symbols/Pictograms** None

**Signal Word** 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.

**Hazards associated with known or reasonably anticipated uses** None known.

**Unknown Acute Toxicity** 0% of the mixture consists of ingredient(s) of unknown toxicity.

## SECTION 3: Composition/information on ingredients

**Pure substance/mixture** Substance

Chemical Name	CAS NUMBER:	Weight-%
Aluminum Hydroxide	21645-51-2	100

## 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

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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.

### Ingestion

Rinse mouth thoroughly with water.

### Inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

### Aspiration hazard

Not an expected route of exposure.

### 4.2. Most important symptoms and effects, both acute and delayed

Signs and symptoms may include coughing, gasping, choking and difficulty breathing.

### 4.3. Indication of any immediate medical attention and special treatment needed

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

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- 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.
- 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)

Canada - Ontario - OEL - TWA EVs

1 mg/m<sup>3</sup>

Canada - Nova Scotia - OEL - TWA

1 mg/m<sup>3</sup> TWA (respirable fraction)

**PNEC (Predicted No Effect Concentration)** No information available

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**DNEL (Derived No Effect Level)** Consumer - oral, long-term - local and systemic 4.74 mg/kg bw/day  
Worker - inhalative, long-term - local and systemic 10.74 mg/m<sup>3</sup>

**Biological Limit Values** None

### 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:

<b>Physical State</b>	Solid Powder
<b>Odor</b>	Odorless
<b>pH:</b>	8.4 - 10.2 5% Water suspension
<b>Melting point / Freezing point</b>	ca 300 °C / 572 °F (101.3 kPa)
<b>Initial boiling point</b>	5396 °F (2980 °C) 101.3 kPa
<b>Freezing Point</b>	Not applicable
<b>Flash Point</b>	Not applicable
<b>Flammability</b>	Not applicable
<b>Flammability</b>	Not applicable
<b>Upper flammability limit:</b>	--
<b>Lower flammability limit:</b>	--
<b>Vapor Pressure</b>	Not applicable
<b>Relative Vapor Density</b>	Not applicable
<b>Relative Vapor Density</b>	Not applicable
<b>Density</b>	No data available
<b>Relative Density</b>	2.4 g/cm <sup>3</sup> , 20° C
<b>Water Solubility</b>	Insoluble
<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)

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Viscosity	Not applicable.
Kinematic viscosity	Not applicable
Explosive Properties	None
Oxidizing Properties	Not applicable
Particle Characteristics	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	None
10.2. Chemical stability	Stable under normal conditions
10.3. Possibility of hazardous reactions	None under normal processing
10.4. Conditions to avoid	Incompatible materials
10.5. Incompatible materials	Strong acids
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 toxicological effects

#### Aluminum Hydroxide

Oral LD50	> 2000 mg/kg Rat
IARC	Not Listed

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

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

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<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
<b>Information on Likely Routes of Exposure</b>	
<b>Inhalation</b>	Do not breathe dust Inhalation of dust may cause irritation of the respiratory system
<b>Ingestion</b>	Ingestion is not a likely route of exposure
<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>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

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## SECTION 12: Ecological information

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

### Aluminum Hydroxide

**WGK Classification (AwSV)** 5220. WGK: nwg

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

**12.3. Bioaccumulative potential** Not likely to bioaccumulate.

**Partition coefficient** No information available

**Bioconcentration factor (BCF)** Not available.

**12.4. Mobility in soil** No information available.

**12.5. Results of PBT and vPvB assessment** This substance does not meet the criteria for classification as PBT or vPvB.

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

**12.7. Other Adverse Effects** None known

## 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** 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

### Aluminum Hydroxide

**European Waste Catalog** 060299  
**WGK Classification (AwSV)** 5220. WGK: nwg

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## 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 or ID 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. Maritime transport in bulk according to IMO instruments  
Not applicable

## SECTION 15: Regulatory information

### Global Inventories

#### Pure substance/mixture

#### Substance

Chemical Name	CAS NUMBER:	EC No	Australia (AIC)	Canada (DSL)	China (IECSC)	Japan	S. Korea (KECL)	Mexico	Thailand (TECI)	New Zealand	Taiwan	Philippines (PICCS)	TSCA: United States
Aluminum Hydroxide	21645-51-2	244-492-7	Y	Y	Y	(1)-17 (ENCS); ISHL	KE-00980	Y	55-1-02595	Y	Y	Y	A

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

### US Federal Regulations

#### EPA

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## SARA 304

Not regulated

## Aluminum Hydroxide

CERCLA

Not listed

SARA 302

Not listed

## CWA (Clean Water Act)

Not regulated

## CAA (Clean Air Act)

Not regulated

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

Chemical Name	CAS NUMBER:	California Proposition 65	Massachusetts	Minnesota	New Jersey	Pennsylvania
Aluminum Hydroxide	21645-51-2	N	N	N	N	N

Y: Listed ; N: Not Listed

## 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

## SECTION 16: Other information

<b>Prepared by</b>	Huber Engineered Materials (HEM) Global Regulatory Affairs HEM.HAMregulatory@huber.com
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<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>	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 CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) RQ (Reportable Quantity) (RQ/% in mixture)

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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**