# Safety Data Sheet

## Onyx Elite® 111

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



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

### 1.1. Product identifier

| | |
|---|---|
| **Product Name:** | **Onyx Elite® 111** |
| **Chemical Name** | Aluminum Hydroxide |
| **Pure substance/mixture** | Substance |

### 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<br>3100 Cumberland Boulevard, Suite 600<br>Atlanta, GA 30339 USA<br>Tel: +1 678 247-7300 |
| **Internet** | www.huberadvancedmaterials.com |
| **Contact E-Mail** | 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

| | |
|---|---|
| **Symbols/Pictograms** | None |
| **Signal Word** | None |
| **Hazard Statements** | None |

**Precautionary Statements**

| | |
|---|---|
| **Prevention** | Employ good industrial hygiene practice<br>Wash hands thoroughly after handling |
| **Response** | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing<br>IF ON SKIN: Wash with plenty of soap and water |
| **Storage** | Keep in a dry place<br>Store away from incompatible materials |
| **Disposal** | Disposal should be in accordance with applicable regional, national and local laws and regulations. |

**Additional Information:** None.

**2.3. Other hazards** This product does not contain any known or suspected endocrine disruptors
The product does not contain any substance(s) classified as PBT or vPvB above the threshold of declaration
The product does not contain any substance(s) classified as PMT or vPvM above the threshold of declaration

## SECTION 3: Composition/information on ingredients

**3.1. Substance** Substance

| Chemical Name | CAS NUMBER: | EC No | (CLP) Regulation (EC 1272/2008) | Weight-% |
|---|---|---|---|---|
| Aluminum Hydroxide | 21645-51-2 | 244-492-7 | Not classified | 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 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.

**Inhalation** 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** Not an expected route of exposure.

**Notes to Physician** Treat symptomatically.

**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 (CO2).

**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

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|---|---|
| **7.1. Precautions for safe handling** | Minimize dust generation and accumulation<br>Provide local exhaust ventilation<br>Handle in accordance with good industrial hygiene and safety practice |
| **7.2. Conditions for safe storage, including any incompatibilities** | Store away from incompatible materials<br>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**

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|---|---|
| **ACGIH** | TLV/TWA 8-hr: 1 mg/m³ (respirable fraction) |
| **OSHA** | TWA: 15 mg/m³ (Total Dust)<br>5 mg/m³ (Respirable Dust) |
| **NIOSH** | TWA: 5 mg/m³ (respirable dust); 10 mg/m³ TWA (total dust) |
| **France** | Not established (Non établi) |
| **France** | Not established (Non établi) |
| **Germany** | 1.25 mg/m³<br>10 mg/m³ |
| **Poland** | 2.5 mg/m³ (inhalable); 1.2 mg/m³ (respirable) |
| **Switzerland** | TWA: 3 mg/m³ |
| **United Kingdom** | 10 mg.m-3 (inhalable); 4 mg.m-3 (respirable) |

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

**Biological Limit Values** None

**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/m³

**PNEC (Predicted No Effect Concentration)** 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** Protective gloves.

**Respiratory Protection** In case of inadequate ventilation wear respiratory protection. Use NIOSH/MSHA approved respiratory protection equipment when airborne exposures exceeds established guidelines. In case of exposure to high levels of airborne mist, wear a respirator in compliance with national legislation. EN 149, P2 Half-mask.

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|---|---|
| **Thermal hazards** | None known. |
| **Hygiene Measures** | Follow general hygiene considerations recognized as common good workplace practices<br>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 |
| **Color** | White |
| **Odor** | Odorless |
| **pH:** | 8.4 - 10.2 5% Water suspension |
| **Melting point / Freezing point** | ca 300 °C / 572 °F (101.3 kPa) |
| **Initial boiling point** | 5396 °F (2980 °C) 101.3 kPa |
| **Freezing Point** | Not applicable |
| **Flash Point** | Not applicable |
| **Flammability** | Not applicable |
| **Flammability** | Not applicable |
| **Upper flammability limit:** | -- |
| **Lower flammability limit:** | -- |
| **Vapor Pressure** | Not applicable |
| **Relative Vapor Density** | Not applicable |
| **Relative Vapor Density** | Not applicable |
| **Density** | No data available |
| **Relative Density** | 2.4 g/cm3, 20° C |
| **Water Solubility** | Insoluble |
| **Solubility in other solvents** | No information available |
| **Partition coefficient** | No information available |
| **Autoignition Temperature** | Not applicable |
| **Decomposition Temperature** | 392 °F (200 °C) |
| **Viscosity** | Not applicable. |
| **Kinematic viscosity** | Not applicable |
| **Explosive Properties** | None |
| **Oxidizing Properties** | Not applicable |
| **Particle Characteristics** | Observe technical data sheet |
| **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**

| | |
|---|---|
| **LD50s and LC50s** | > 5000 mg/kg Oral LD50 |
| **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. |
| **Chronic Effects** | Based on available data, the classification criteria are not met. |
| **Respiratory Sensitization** | No information available |
| **Serious eye damage/eye irritation** | Non-irritant Rabbit |
| **Skin Corrosion/Irritation** | Non-irritant Rabbit |
| **Skin Sensitization** | Based on available data, the classification criteria are not met. Not a skin sensitizer Guinea pig |

| | |
|---|---|
| **Mutagenicity** | in vitro Not genotoxic in bacteria and mammalian cell systems.<br>in vivo Mutagenicity (micronucleus test) Rat Negative (weight of evidence approach) |
| **Germ cell mutagenicity** | No information available. |
| **Reproductive Effects** | Based on available data, the classification criteria are not met. |
| **Reproductive Toxicity** | Based on available data, the classification criteria are not met. |
| **Carcinogenicity** | Based on available data, the classification criteria are not met. |
| **Specific target organ toxicity - Single exposure** | Not classified. |
| **Specific target organ toxicity - Repeated exposure** | No information available. |
| **Mixture versus substance information** | No information available |

**Information on Likely Routes of Exposure**

| | |
|---|---|
| **Inhalation** | Do not breathe dust<br>Inhalation of dust may cause irritation of the respiratory system |
| **Ingestion** | Ingestion is not a likely route of exposure |
| **Skin** | Contact with dust can cause mechanical irritation or drying of the skin |
| **Eyes** | Dust contact with the eyes can lead to mechanical irritation |
| **Aspiration hazard** | 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. Avoid release to the environment.

**Aluminum Hydroxide**

| | |
|---|---|
| **Aquatic toxicity** | Not considered to be harmful to aquatic life |
| **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**

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|---|---|
| **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**

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|---|---|
| **European Waste Catalog** | 060299 |
| **WGK Classification (AwSV)** | 5220. 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. 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** Substance

| Chemical Name | CAS NUMBER: | EC No | Australia (AIIC) | Canada (DSL) | China (IECSC) | Japan | S. Korea (KECL) | Mexico | Thailand (TECI) | New Zealand | Philippines (PICCS) | Taiwan | 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

**REACH No.**

**Aluminum Hydroxide**
**EU REACH registration number** 01-2119529246-39
**Turkish KKDIK pre-registration** 05-0000193352-73-0000

**Germany**
**Aluminum Hydroxide**
**WGK Classification (AwSV)** 5220. WGK: nwg

**15.2. Chemical safety assessment**
For this substance a chemical safety assessment is not required

# 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 |
| **Issue Date** | 20/Oct/2026 |
| **Print Date** | 22/Oct/2026 |
| **Revision Number** | 1.3.1 |
| **Prepared by** | Huber Engineered Materials Global Regulatory Affairs (Email – HEM.HAMRegulatory@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)<br>IUCLID (International Uniform Chemical Information Database)<br>WHMIS (Workplace Hazardous Materials Information System)<br>OSHA (Occupational Safety and Health Administration of the US Department of Labor)<br>TWA (Time-Weighted Average)<br>CLP (The Classification, Labeling and Packaging of Substances and Mixtures Regulation (EC 1272/2008))<br>PPE (Personal Protection Equipment)<br>NIOSH (National Institute for Occupational Safety and Health)<br>CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)<br>RQ (Reportable Quantity) (RQ/% in mixture)<br>STEL (Short Term Exposure Limit)<br>TLV® (Threshold Limit Value)<br>DNEL (Derived No Effect Level)<br>SVHC (Substances of Very High Concern)<br>BOD (Biochemical oxygen demand)<br>COD (Chemical oxygen demand)<br>ICAO (International Civil Aviation Organization)<br>IMDG (International Maritime Dangerous Goods)<br>ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road)<br>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)
SCBA (Self-Contained Breathing Apparatus) Positive Pressure
GHS (Globally Harmonized System)
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**