

MoldX® A110

Prepared in accordance with GB/T 16483-2008, GB/TGB/T 24774-2009, GB 13690 – 2009, GB/T 17519–2013 Globally Harmonized System (GHS)

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Section 1: PRODUCT AND COMPANY IDENTIFICATION

| Product Name: | MoldX® A110 |
|--|---|
| Pure substance/mixture | Substance |
| Aluminum Hydroxide CAS Number Weight-% | 21645-51-2 100 |
| Recommended Use | Flame retardant |
| Company: | J.M. Huber Corporation 3100 Cumberland Boulevard, Suite 600 Atlanta, GA 30339 USA Tel: +1 678 247-7300 |
| Emergency Telephone | CHEMTREC: 1 800 424 9300 or International +1 703 527 3887 |
| E-mail | hubermaterials@huber.com |
| Internet | www.hubermaterials.com |

Section 2: HAZARDS IDENTIFICATION

| GHS Classification | Not classified |
|--------------------------|----------------|
| Physical Hazard | Not classified |
| Health Hazard | Not classified |
| Environmental Hazard | Not classified |
| Label Elements | |
| Symbols/Pictograms | None |
| Signal Word | None |
| Precautionary Statements | |
| Prevention | None |

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| Response | None |
|-------------------------|--|
| Spills and Leaks | Collect spillage |
| Storage | Store in a dry place |
| Disposal | Dispose in accordance with local, state and national regulations |
| General Advice | None |
| Additional Information: | None. |

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture

Substance

| Chemical Name | CAS Number | China (IECSC) | China classification | TSCA: United States | REACH registration | Weight-% |
|--------------------|------------|---------------|-------------------------|------------------------|-------------------------------------|----------|
| Aluminum Hydroxide | 21645-51-2 | Y | Not classified | Y | number 01-2119529246-39 -0016 | 100 |

Section 4: FIRST AID MEASURES

| General Advice | None |
|---|--|
| Eye Contact | Hold eyelids apart and flush eyes with a steady, gentle stream of water for several minutes. |
| Skin Contact | Wash skin with soap and water |
| Inhalation | IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing |
| Ingestion | Rinse mouth with water. Do not induce vomiting. |
| Notes to Physician | Treat symptomatically |
| Personal Protective Equipment For First Aid Responders | Wear suitable protective clothing IF exposed or concerned: Get medical advice/attention |
| Expected acute symptoms and delayed symptoms | None known |

Section 5: FIRE FIGHTING MEASURES

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| Flammable Properties | None known |
|--|---|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Unsuitable extinguishing media: | None known |
| Specific Hazards Arising from the Chemical | None known |
| Unusual fire & explosion hazards: | None |
| Protective measures: | Use protective equipment that is appropriate for surrounding materials. |
| Protective Equipment and Precautions for Firefighters | Wear self-contained breathing apparatus and protective suit |

Section 6: SPILLAGE, ACCIDENTAL RELEASE MEASURES

| Personal Precautions | Avoid dust formation. When exposed to high concentrations of airborne dust, wear a SCBA in accordance with national legislation |
|---------------------------|--|
| Environmental Precautions | This product does not present any particular risk to the environment. Refer to applicable national, state and local regulations prior to washing in drain. |
| Methods for cleaning up | Pick up mechanically and / or by rinsing with water. Avoid dry sweeping and use a sprinkler system or exhaust ventilation to prevent dust formation. |
| Other Information: | None known |

Section 7: HANDLING AND STORAGE

| Handling | Avoid dust formation. Avoid breathing dust. Handle in accordance with good industrial hygiene and safety practice. |
|-----------------|--|
| Storage | Store in a dry area. Keep containers closed and protect from physical damage. |
| Section 8: EXPC | SURE CONTROLS/PERSONAL PROTECTION |
| Exposure Limits | Provide adequate ventilation as well as local exhaustion at critical locations |
| | |

Aluminum Hydroxide ACGIH NIOSH OSHA

TLV/TWA 8-hr: 1 mg/m³ (respirable fraction) TWA: 5 mg/m³ (respirable dust); 10 mg/m³ TWA (total dust) TWA: 15 mg/m³ Total Dust 5 mg/m³ Respirable Dust

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|--|--|
| 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 | Impervious 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 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

Information on basic physical and chemical properties

Appearance: Physical State

| 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/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. |
| Explosive Properties | None |
| Oxidizing Properties | Not applicable |
| | |
| | |

VOC Content (%)

Not applicable

Section 10: STABILITY AND REACTIVITY

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| Stability | Stable under normal conditions |
|----------------------------------|--------------------------------|
| Conditions to avoid: | None known |
| Incompatible materials | Strong acids |
| Hazardous decomposition products | None under normal processing |
| Hazardous Reactions | None under normal processing |
| Hazardous polymerization: | None under normal processing |

Section 11: TOXICOLOGICAL INFORMATION

| General Information | Users are advised to consider national Occupational Exposure Limits or other equivalent values. |
|---------------------------------|---|
| Product Information | |
| Information on Likely Routes of | Exposure |
| Inhalation | Based on available data, the classification criteria are not met |
| Ingestion | Ingestion is not a likely route of exposure |
| Aspiration hazard | Not an expected route of exposure. |
| Symptoms | Low hazard for usual industrial or commercial handling |
| Aspiration hazard | Not an expected route of exposure. |

11.1. Information on toxicological effects

| Aluminum Hydroxide Oral LD50 Inhalation LC50 IARC | > 2000 mg/kg Rat Rat > 2.3 mg/l (Al2O3) Aerosol Maximum attainable concentration 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. |
| Serious eye damage/eye irritation | Non-irritant Rabbit |
| Respiratory Sensitization | No information available |

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|---|--|
| 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. 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. |

Section 12: ECOLOGICAL INFORMATION

| Ecotoxicity | Not considered to be harmful to aquatic life. | | | | | |
|--|---|--|--|--|--|--|
| Persistence/Degradability: | The methods for determining biodegradability are not applicable to inorganic substances. | | | | | |
| Bioaccumulative Potential Partition coefficient Bioconcentration factor (BCF) | Not likely to bioaccumulate. No information available Not available. | | | | | |
| Mobility in soil Results of PBT and vPvB assessment Other Adverse Effects | No information available. This substance does not meet the criteria for classification as PBT or vPvB. No information available | | | | | |

Section 13: DISPOSAL CONSIDERATIONS

| Waste from Residues/Unused Products | Dispose of in accordance with local regulations |
|--|---|
| Contaminated Packaging: | Empty containers should be taken to an approved waste handling site for recycling |

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or disposal.

Section 14: TRANSPORT INFORMATION

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

| DOT ADR RID ADN IATA IMDG/IMO ICAO | Not regulated Not regulated Not regulated Not regulated Not regulated Not regulated 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

| Chemical Name | CAS Number | EC No | REACH registration number | Australia (AICS) | Canada (DSL) | China (IECSC) | Japan | S. Korea (KECL) | Mexico | New Zealand | Philippin es (PICCS) | Taiwan | TSCA: United States |
|-----------------------|----------------|-----------|---------------------------------|---------------------|-----------------|------------------|-------|--------------------|--------|----------------|----------------------------|--------|---------------------------|
| Aluminum Hydroxide | 21645-51- 2 | 244-492-7 | 01-211952924 6-39-0016 | Ŷ | Ŷ | Ŷ | Ŷ | KE-00980 | Ŷ | Ŷ | Ŷ | Ŷ | Ŷ |

Legend

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

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Section 16: OTHER INFORMATION

| Prepared by | Huber Engineered Materials Global Regulatory Affairs email: regulatory.affairs@huber.com |
|----------------------------|--|
| Reason for Revision | GB/T 16483-2008 GB/T 24774-2009 GB 13690 – 2009 GB/T 17519–2013 |
| GHS Classification | Not classified |
| Physical Hazard | Not classified |
| Health Hazard | Not classified |
| Environmental Hazard | Not classified |
| Label Elements | |
| Symbols/Pictograms | None |
| Signal Word | None |
| 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 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) Predicted No Effect Concentration (PNEC) Globally Harmonized System (GHS) |

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End of Safety Data Sheet