



Micral® AM-550

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

Issue Date 21/Feb/2023

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Section 1: PRODUCT AND COMPANY IDENTIFICATION

| | |
|----------------------------------|---|
| Product Name: | Micral® AM-550 |
| Pure substance/mixture | Substance |
| <u>Aluminum Hydroxide</u> | |
| CAS Number | 21645-51-2 |
| Weight-% | 100 |
| Recommended Use | Flame retardant |
| Uses advised against | None known |
| 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 | www.huberadvancedmaterials.com/contact |
| Internet | www.huberadvancedmaterials.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 |
| <u>Precautionary Statements</u> | |
| 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 | EU REACH registration number | Weight-% |
|--------------------|------------|---------------|----------------------|---------------------|------------------------------|----------|
| Aluminum Hydroxide | 21645-51-2 | Y | Not classified. | A | 01-2119529246-39 | 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 |

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Section 5: FIRE FIGHTING MEASURES

| | |
|--|---|
| 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: EXPOSURE CONTROLS/PERSONAL PROTECTION

| | |
|------------------------|---|
| Exposure Limits | Provide adequate ventilation as well as local exhaust 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)

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5 mg/m³ (Respirable Dust)

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

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

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 (101.3 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

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VOC Content (%) Not applicable

Section 10: STABILITY AND REACTIVITY

| | |
|---|--------------------------------|
| 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

| | |
|--------------------------|--|
| Skin | Contact with dust can cause mechanical irritation or drying of the skin |
| Inhalation | Do not breathe dust Inhalation of dust may cause irritation of the respiratory system |
| 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 |

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.

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| 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 |
| 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. Avoid release to the environment. |
| Persistence/Degradability: | The methods for determining biodegradability are not applicable to inorganic substances. |
| Bioaccumulative Potential | Not likely to bioaccumulate. |
| Partition coefficient | No information available |
| Bioconcentration factor (BCF) | Not available. |
| Mobility in soil | No information available. |

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

Other Adverse Effects 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 or disposal.

Section 14: TRANSPORT INFORMATION

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

| | |
|----------|---------------|
| 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. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

Section 15: REGULATORY INFORMATION

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15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global Inventories

| Chemical Name | CAS Number | EC No | EU REACH registration number | Australia (AIC) | 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 | 01-211952924-6-39 | Y | Y | Y | (1)-17 (ENCS); ISHL | KE-00980 | Y | Y | Y | Y | A |

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

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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 | 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) 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) SCBA (Self-Contained Breathing Apparatus) Positive Pressure GHS (Globally Harmonized System) ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road) RID (Agreement Concerning the International Carriage of Dangerous Goods by Rail) SARA (Superfund Amendments and Reauthorization Act of 1986) |

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TSCA (Toxic Substances Control Act)

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End of Safety Data Sheet