ADVANCED **MATERIALS**

Safety Data Sheet

Micral® AM-550

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 GHS (Globally Harmonized System)

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

1.1. Product identifier

Product Name: Micral® AM-550

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

3100 Cumberland Boulevard, Suite 600

Atlanta, GA 30339 USA Tel: +1 678 247-7300

www.huberadvancedmaterials.com Internet

Contact E-Mail 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

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)

Not classified. **Physical Hazards**

Not classified. **Health Hazards**

Environmental Hazard Not classified.

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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

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

Store away from incompatible materials Storage

Disposal Dispose of contents/containers in accordance with local regulations

Additional Information: None.

Hazards not otherwise classified Not classified.

(HNOC)

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

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.

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Skin Contact Wash with plenty of soap and water.

Rinse mouth thoroughly with water. Ingestion

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 Treatment should be symptomatic and supportive. medical attention and special

treatment needed

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

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 Large Spill: Do not dry sweep dust. Wet dust with water before sweeping or use a containment and cleaning up

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.

including any incompatibilities

7.2. Conditions for safe storage, 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

TWA: 15 mg/m³ (Total Dust) OSHA 5 mg/m³ (Respirable Dust)

ACGIH TLV/TWA 8-hr: 1 mg/m³ (respirable fraction)

Canada - Ontario - OEL - TWA EVs

Canada - Nova Scotia - OEL - TWA 1 mg/m3 TWA (respirable fraction)

PNEC (Predicted No Effect

Concentration)

No information available

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

Biological Limit Values None

8.2. Exposure controls

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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 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 (101.3 kPa) 5396 °F (2980 °C) 101.3 kPa

Freezing Point

Flash Point

Evaporation Rate
Flammability (solid, gas)
Flammability (solid, gas)

Not applicable
Not applicable
Not applicable
Not applicable

Upper flammability limit: -Lower flammability limit: --

Vapor PressureNot applicableVapor DensityNot applicableVapor DensityNot applicableDensityNo data availableRelative Density2.4 g/cm3, 20° C

Water Solubility Insoluble

Solubility in other solvents

Partition coefficient

No information available
No information available

None

Autoignition Temperature

Decomposition Temperature

Viscosity

Not applicable
392 °F (200 °C)
Not applicable.

Kinematic viscosity

Not applicable

Oxidizing Properties Not applicable

Explosive Properties

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No information available **Particle Size**

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 None known

products

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

> 2000 mg/kg Rat Oral LD50

Not Listed **IARC**

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

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

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Serious eye damage/eye

irritation

Non-irritant Rabbit

Non-irritant Rabbit Skin Corrosion/Irritation

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)

No information available. Germ cell mutagenicity

Reproductive Effects Based on available data, the classification criteria are not met.

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

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

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

This product does not contain any known or suspected endocrine disruptors

properties

11.2.2. Other information Not applicable

SECTION 12: Ecological information

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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.

No information available Partition coefficient

Bioconcentration factor

(BCF)

Not available.

No information available. 12.4. Mobility in soil

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

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal should be in accordance with applicable regional, national and local laws **Disposal Methods**

and regulations.

Empty containers should be taken to an approved waste handling site for recycling **Contaminated Packaging**

or disposal.

Waste codes should be assigned by the user based on the application for which Waste codes

the product was used

Aluminum Hydroxide

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

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

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 Not applicable

user

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 | EU REACH registrati on number | Australia (AIIC) | Canada (DSL) | China (IECSC) | Japan | S. Korea (KECL) | Mexico | | Philippine s (PICCS) | | TSCA: United States |
|-----------------------|----------------|-----------|---|---------------------|-----------------|------------------|---------------------------|--------------------|--------|---|-------------------------|---|---------------------------|
| Aluminum Hydroxide | 21645-51- 2 | 244-492-7 | 01-211952 9246-39 | Y | Y | Y | (1)-17 (ENCS); ISHL | KE-00980 | Y | Y | Y | Y | A |

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

US Federal Regulations

EPA

SARA 304 Not regulated

Aluminum Hydroxide

CERCLA Not listed **SARA 302** Not listed

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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

Huber Engineered Materials (HEM) Global Regulatory Affairs Prepared by

regulatory.affairs@huber.com

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OSHA (Occupational Safety and Health Administration of the US Department of **Reason for Version**

Training Advice Do not handle until all safety precautions have been read and understood.

IARC (International Agency for Research on Cancer) Abbreviations and acronyms

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)

ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

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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

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End of Safety Data Sheet