

Offer Sheet

Product	Aluminum Hydroxide
Quantity	17 pallets
Net weight	~ 37,400 lbs.
Availability	One time
Location	Plymouth, IN
Manufactured	
Date	10/22/26
COA & SDS	See below

HUBER
ENGINEERED MATERIALS

J.M. Huber Corporation
ENGINEERED MATERIALS

Shipped To: _____

Certificate Of Analysis

Product: 31000582SS Products / Lots: SB-432 ATH 2000LB MH2 SS ON 9244 HT PLT

Huber Order Number: 1383220-2.1 BOL Number: 1686740
Customer Order Number: 271
Vehicle Number: COPELAND R51645
Lot Number: MHD-02083419 Seal Number: 9645
Ship Date: 28-AUG-19
Production Date: 22-AUG-19

Test Results

Test Description	Unit of Measure	Min	Tested Value	Max	Test Number
FREE MOISTURE	Percent	0	0.83	15.5	Passed LABA0123
LOSS ON IGNITION	Percent	31.5	34.6	35.5	Passed LABA0209
325 MESH	Percent	99	99.9888	100	Passed LABA0004
MILLIGRAM PART SIZE	Micron	5	8.82	10	Passed LABA0116
PERCENT SOLUBILITY IN SODA	Percent	0	0.021	0.05	Passed LABA0112

Instructions:

Comments:

Certificate Validation: The Quality Assurance Manager hereby declares that this certificate is made up electronically and therefore not signed, but is a valid Certificate of Analysis. If the contact information on the lower left of this document is NOT accurate please contact Huber Engineered Materials at the phone number in the lower right, so that we can update our records. Thank you for your order.

The results presented on this certificate are based on normally reliable standard tests performed on material as produced or as packaged.

Copy to: ATTN: Shipment Copy

Lab: J.M. HUBER CORP.
Quality Laboratory
1700 TURTLE LAKE ROAD
QUINCY, IL 62455
TRAVIS HESS
(317) 224-2455

Print: _____
Fax: _____
Phone: _____
E-Mail: _____

PRINT

If interested, please call or text:

Brian Svrusis
Solvent Systems International
575 Bennett Road
Elk Grove Village, IL 60007
847-323-6718 call or text
Click here for: [Surplus Inventory](#)
[Solvent-Systems.com](#)

Aluminum Hydroxide (Al(OH)₃), CAS 21645-51-2, is a widely used industrial chemical with applications in flame retardants, plastics, water treatment, ceramics, glass manufacturing, and specialty chemical production.

Primary Commercial Uses

Industry	Commercial Application
Plastics and polymers	Halogen-free flame retardant and smoke suppressant
Wire and cable	Flame-retardant insulation and jacketing compounds
Solid surface manufacturing	Filler for engineered stone, countertops and acrylic solid surfaces
Water treatment	Feedstock for aluminum-based coagulants such as aluminum sulfate and PAC
Rubber manufacturing	Flame-retardant filler in rubber compounds
Paints and coatings	Flame retardancy, filler and matting applications
Glass manufacturing	Alumina source for specialty glass and fiberglass
Ceramics	Alumina source for ceramic manufacturing
Chemical manufacturing	Production of alumina and aluminum-based chemicals
Pharmaceuticals	Antacid and pharmaceutical excipient



Safety Data Sheet

FIRE RETARDANT ADDITIVES

SB-432

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

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

1.1. Product Identifier

Product Name: SB-432

Pure substance/mixture Substance

Chemical Name	CAS Number	EC No	EU REACH registration number	(CLP) Regulation (EC 1272/2008)	Weight-%
Aluminum Hydroxide	21645-51-2	244-492-7	01-2119529246-39	Not classified	100

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

Manufacturer J.M. Huber Corporation
3100 Cumberland Boulevard, Suite 600
Atlanta, GA 30339 USA
Tel: +1 678 247-7300

MARTINSWERK GmbH
Kölner Strasse 110
50127 Bergheim
Germany
Tel. : +49-2271-90.22.78
Fax. : +49-2271-90.27.17

Internet www.hubermaterials.com

E-mail hubermaterials@huber.com

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)

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Page 2 of 11**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 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 IF ON SKIN: Wash with plenty of soap and water
Storage	Keep in a dry place 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** No information available.**SECTION 3: Composition/information on ingredients****3.1. Substance**

Substance

Chemical Name	CAS Number	EC No	EU REACH registration number	(CLP) Regulation (EC 1272/2008)	Annex	Weight-%
Aluminum Hydroxide	21645-51-2	244-492-7	01-2119529246-39	Not classified	--	100

SECTION 4: First aid measures

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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**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**

ACGIH
OSHA

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

TWA: 15 mg/m³ Total Dust

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)

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)

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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.

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)
Initial boiling point	5396 °F (2980 °C) 101.3 kPa
Freezing Point	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not applicable.
Flammability (solid, gas)	Not applicable
Flammability (solid, gas)	Not applicable
Upper flammability limit:	—

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Lower flammability limit:	—
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Vapor Density	Not applicable
Density	No data available
Relative Density	2.4 g/cm ³ , 20° C
Water Solubility	0.00009 g/l at 20 °C
Solubility in other solvents	No information available
Partition coefficient	Not applicable
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 Size	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 hazard classes as defined in Regulation (EC) No 1272/2008

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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.
Respiratory Sensitization	No information available
Serious eye damage/eye irritation	Based on available data, the classification criteria are not met
Skin Corrosion/Irritation	Prolonged or repeated contact may dry skin and cause 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)
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	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
Specific target organ toxicity - Single exposure	Based on available data, the classification criteria are not met.
Specific target organ toxicity - Repeated exposure	Based on available data, the classification criteria are not met.
Mixture versus substance Information	No information available
Information on Likely Routes of Exposure	
Inhalation	Avoid inhalation of the product Inhalation of dust may cause irritation of the respiratory system
Ingestion	Ingestion is not a likely route of exposure
Skin	Avoid prolonged or repeated contact with skin
Eyes	Avoid contact with eyes Dust contact with the eyes can lead to mechanical irritation

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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

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 Not applicable

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

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

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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
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

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 (AIC)	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	55-1-02594	Y	Y	Y	A

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

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REACH No.**Aluminum Hydroxide**

EU REACH registration number 01-2119529246-39
Turkish KKDİK pre-registration 05-0000193352-73-0000

Germany

Not considered to be harmful to aquatic life

Aluminum Hydroxide

WGK Classification (AwSV) 5220 WGK: nwg

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance

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

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Print Date 15/Feb/2023
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Prepared by Huber Engineered Materials Global Regulatory Affairs
email: regulatory.affairs@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)
IUCLID (International Uniform Chemical Information Database)
WHMIS (Workplace Hazardous Materials Information System)
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)
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)

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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)
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



Hymod® SB432 SP

Aluminum Hydroxide (ATH)

DESCRIPTION

Huber Engineered Materials' Hymod® SB432 SP is a medium particle size, surface treated ATH product that provides functional reinforcement, flame retardancy and smoke suppression in a variety of applications, such as acrylic, EPDM, EVA, SBR, polyester and polyolefin compounds. The unique particle size distribution is specifically designed for low viscosity, high loading, and excellent processing characteristics.

TYPICAL ANALYSIS

Al(OH) ₃ , %	99.6
SiO ₂ , %	0.005
Fe ₂ O ₃ , %	0.007
Na ₂ O (total), %	0.2
Na ₂ O (soluble), %	0.03

TYPICAL PROPERTIES

Screen Analysis	
% on 325 mesh	0.2
% through 325 mesh	99.8
% @ 10 microns	54.7
Loss on ignition (1000°C), %	34.6
Median Particle Diameter, microns**	9
BET Surface Area, (m ² /g)*	2.1
Specific Gravity (gm/cm ³)	2.42
Bulk Density, loose (gm/cm ³)	0.65
Bulk Density, packed (gm/cm ³)	1.18
TAPPI Brightness*	89

* TAPPI Brightness measured with the Hunterlab Colorimeter

** By Sedigraph