



HUBER ENGINEERED MATERIALS

# SAFETY DATA SHEET

## HYMOD® M9400 SP

MOL No. 2009-68 Standards for Classification and Labeling of Chemical Substances and Material Safety Data Sheet (MSDS)

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### Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>A. Product name</b>	HYMOD® M9400 SP
<b>Chemical Name</b>	Mixture
<b><u>Aluminum Hydroxide</u></b>	
<b>CAS Number</b>	21645-51-2
<b>Weight-%</b>	>99
<b><u>Proprietary Surface Treatment</u></b>	
<b>CAS Number</b>	Proprietary
<b>Weight-%</b>	<1
<b>B. Recommended use and Limitations on use</b>	
<b>Recommended Use</b>	Flame retardant
<b>Uses advised against</b>	None known
<b>C. Supplier information</b>	
<b>Company Name</b>	J.M. Huber Corporation 3100 Cumberland Boulevard, Suite 600 Atlanta, GA 30339 USA Tel: +1 678 247-7300
<b>E-mail</b>	hubermaterials@huber.com
<b>Internet</b>	www.hubermaterials.com
<b>Contact person</b>	CHEMTREC
<b>Emergency phone number</b>	+1 800 424 9300 International +1 703 527 3887

### Section 2: HAZARDS IDENTIFICATION

<b>A. Hazard category/Classification</b>	
<b>Physical Hazards</b>	Not classified
<b>Health Hazards</b>	Not classified
<b>Environmental Hazards</b>	Not classified

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**B. Warning label items including precautionary statement****Label Elements****Symbols/Pictograms** None**Signal Words** None**Hazard Statements** None**Precautionary statement****Prevention** Employ good industrial hygiene practice

**Response** IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing  
 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  
 If swallowed, rinse mouth with water (only if the person is conscious)  
 Drink plenty of water

**Storage** Store away from incompatible materials**Disposal** Disposal should be in accordance with applicable regional, national and local laws and regulations**C. Other hazards not included in the hazard category criteria (e.g. dust explosion hazard)**

None known

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS**

Chemical Name	CAS Number	S. Korea (KECL)	Korean GHS Classification	TSCA: United States	Weight-%
Aluminum Hydroxide	21645-51-2	KE-00980	Not classified	Y	>99
Proprietary Surface Treatment	Proprietary	Y	Not classified	Y	<1

**Legend**

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

**Section 4: FIRST AID MEASURES****A. In case of eye contact** Rinse with water. Get medical attention if irritation develops and persists.**B. In case of skin contact** Wash off with soap and water. Get medical attention if irritation develops and persists.**C. In case of inhalation** Move to fresh air. Call a physician if symptoms develop or persist.

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**D. In case of swallowing** Rinse mouth. Get medical attention if symptoms occur.

**E. Note to physician** Treat symptomatically.

## Section 5: FIRE FIGHTING MEASURES

### A. Suitable (and unsuitable) extinguishing media

**Suitable extinguishing media** Water fog. Foam. Dry chemical powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** None known

### B. Specific hazards arising from the chemical (example: hazardous combustion products)

**Explosion hazard:** None known

### C. Specific methods of fire-fighting

Self-contained breathing apparatus and full protective clothing must be worn in case of fire. In the event of fire and/or explosion do not breathe fumes. Move container from fire area if it can be done without risk.

## Section 6: SPILLAGE, ACCIDENTAL RELEASE MEASURES

**A. Personal precautions, protective equipment and emergency measures** Ensure adequate ventilation. Avoid dust formation. See section 8 for more information.

**B. Environmental precautions** Not considered to be harmful to aquatic life. Avoid discharge into drains, water courses or onto the ground.

**C. Methods and materials for containment and cleaning up** Vacuum or sweep material and place in a disposal container.

## Section 7: HANDLING AND STORAGE

### A. Precautions for safe handling

In case of exposure to environments exceeding the occupational exposure limit, wear a respirator in compliance with national legislation.

### B. Conditions for safe storage (including any incompatibilities)

Keep container tightly closed in a dry and well-ventilated place

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### A. Exposure limit values, biological limit values, etc

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**Aluminum Hydroxide**ACGIH  
OSHATLV/TWA 8-hr: 1 mg/m<sup>3</sup> (respirable fraction)  
TWA: 15 mg/m<sup>3</sup> Total Dust  
5 mg/m<sup>3</sup> Respirable Dust**B. Engineering Controls.  
Engineering Measures**

Do not handle until all safety precautions have been read and understood  
 Ensure adequate ventilation, especially in confined areas  
 Provide a good standard of controlled ventilation (10 to 15 air changes per hour)  
 Use exhaust ventilation to keep airborne concentrations below exposure limits  
 In case of insufficient ventilation, wear suitable respiratory equipment

**C. Personal protective equipment**

- Eye protection
- Hand protection
- Body protection

If contact is likely, safety glasses with side shields are recommended.  
 For prolonged or repeated skin contact use suitable protective gloves.  
 Wear suitable protective clothing.

**Hygiene Measures**

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**Section 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Solid Powder
<b>Color</b>	White
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	No information available
<b>pH:</b>	8.4 - 10.2 (5% water suspension)
<b>Melting Point / Melting Range</b>	Decomposition occurs prior to melting.
<b>Freezing Point</b>	Not applicable
<b>Boiling Point</b>	Decomposition occurs prior to boiling.
<b>Flash Point:</b>	Non-combustible
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper flammability limit:</b>	No data available
<b>Lower flammability limit:</b>	No data available
<b>Vapor Pressure</b>	Not applicable
<b>Vapor Density</b>	Not applicable
<b>Density</b>	2.4 g/cm <sup>3</sup> , 20°C
<b>Water Solubility</b>	Insoluble
<b>Solubility in other solvents</b>	
<b>Partition coefficient</b>	Not applicable
<b>Autoignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	200° C
<b>Kinematic viscosity</b>	No data available.
<b>Explosive Properties</b>	Not applicable
<b>Oxidizing Properties</b>	Not applicable

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## Section 10: STABILITY AND REACTIVITY

### A. Stability and hazardous reaction potential

**Stability** Stable under normal conditions

**Hazardous reaction potential** None known

**B. Conditions to avoid (e.g. static discharge, shock or Vibration, etc)** Avoid creating dust. Incompatible materials.

**C. Incompatible materials** Strong oxidizing agents

**D. Hazardous decomposition products** No hazardous decomposition products are known.

## Section 11: TOXICOLOGICAL INFORMATION

### A. Information on likely routes of exposure

- **Mouth** Not an expected route of exposure
- **Eyes** Dust contact with the eyes can lead to mechanical irritation
- **Skin** Prolonged skin contact may cause temporary irritation.

### B. Information on health hazards

#### Aluminum Hydroxide

**Oral LD50** > 2000 mg/kg Rat  
**Inhalation LC50** Rat > 2.3 mg/l (Al<sub>2</sub>O<sub>3</sub>) Aerosol Maximum attainable concentration

#### Aluminum Hydroxide

**IARC** Not Listed

**Chronic Toxicity** Not classified.

**Respiratory Sensitization** No data available

**Serious eye damage/eye irritation** Dust may cause mechanical irritation to eyes

**Skin Corrosion/Irritation** Prolonged or repeated contact may dry skin and cause irritation

**Mutagenicity** No data available

**Germ cell mutagenicity** No data available.

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

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**Carcinogenicity** Not listed.

**Specific target organ toxicity - Single exposure** No data available.

**Specific target organ toxicity - Repeated exposure** No data available.

## Section 12: ECOLOGICAL INFORMATION

### A. Ecotoxicity

**Hazardous to the aquatic environment, acute hazard** Not classified  
Avoid runoff to waterways and sewers

**Hazardous to the aquatic environment, long-term hazard** Not classified  
Avoid runoff to waterways and sewers

**B. Persistence/degradability** No data available

**C. Bioaccumulative potential** No data available

**D. Mobility in soil** No data available

**E. Other adverse effects** No data available

## Section 13: DISPOSAL CONSIDERATIONS

### A. Method of disposal

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose in accordance with all applicable regulations.

**B. Disposal considerations (including disposal of contaminated containers or packaging)** Disposal should be in accordance with applicable regional, national and local laws and regulations

## Section 14: TRANSPORT INFORMATION

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

**ADR** Not regulated  
**RID** Not regulated

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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

### National Regulations

#### Aluminum Hydroxide

CAS Number	21645-51-2
Weight-%	>99
Korean GHS Classification	Not classified

#### Proprietary Surface Treatment

CAS Number	Proprietary
Weight-%	<1
Korean GHS Classification	Not classified

### Other domestic and foreign regulations

#### Global Inventories

Chemical Name	CAS Number	EC No	REACH registration number	Australia (AICS)	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	01-211952 9246-39-0 016	Y	Y	Y	(1)-17 (ENCS); ISHL	KE-00980	Y	Y	Y	Y	Y
Proprietary Surface Treatment	Proprietary	*	Registered	Y	Y	Y	Y	Y	Y	-	Y	Y	Y

#### Legend

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

## Section 16: OTHER INFORMATION

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**A. Source of Information****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 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  
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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of most recent revision****D. Other****Prepared by**Huber Engineered Materials Global Regulatory Affairs  
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**End of Safety Data Sheet**