



SAFETY DATA SHEET

HUBER ENGINEERED MATERIALS

HYMOD® M9400 SP

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

Issue Date: 09/May/2019

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Revision Number: 1.3

Page 1 of 8

Section 1: PRODUCT AND COMPANY IDENTIFICATION

A. Product name HYMOD® M9400 SP

Chemical Name Mixture

Aluminum Hydroxide

CAS Number 21645-51-2

Weight-% >99

Proprietary Surface Treatment

CAS Number Proprietary

Weight-% <1

B. Recommended use and Limitations on use

Recommended Use Flame retardant

Uses advised against None known

C. Supplier information

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Section 2: HAZARDS IDENTIFICATION

A. Hazard category/Classification

Physical Hazards Not classified

Health Hazards Not classified

Environmental Hazards Not classified

Issue Date: 09/May/2019

Print Date: 09/May/2019

Revision Number: 1.3

Page 2 of 8

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.

Issue Date: 09/May/2019

Print Date: 09/May/2019

Revision Number: 1.3

Page 3 of 8

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 (CO₂).

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

Issue Date: 09/May/2019

Print Date: 09/May/2019

Revision Number: 1.3

Page 4 of 8

Aluminum HydroxideACGIH
OSHATLV/TWA 8-hr: 1 mg/m³ (respirable fraction)
TWA: 15 mg/m³ Total Dust
5 mg/m³ 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

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

Issue Date: 09/May/2019

Print Date: 09/May/2019

Revision Number: 1.3

Page 5 of 8

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 (Al₂O₃) 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.

Issue Date: 09/May/2019

Print Date: 09/May/2019

Revision Number: 1.3

Page 6 of 8

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

Issue Date: 09/May/2019

Print Date: 09/May/2019

Revision Number: 1.3

Page 7 of 8

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

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Section 16: OTHER INFORMATION

Issue Date: 09/May/2019

Print Date: 09/May/2019

Revision Number: 1.3

Page 8 of 8

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