



FIRE RETARDANT ADDITIVES

Safety Data Sheet

Kemgard® MZM-UF

Japan-JIS Z 7253:2012
Occupational Safety and Health Act
Globally Harmonized System (GHS)

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Kemgard® MZM-UF
Pure substance/mixture	Mixture
<u>Magnesium Hydroxide</u>	
CAS Number	1309-42-8
Weight-%	75 - 90%
<u>Zinc Molybdenum</u>	
CAS Number	22914-58-5 61583-60-6
Weight-%	10 - 25%
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
Internet	www.hubermaterials.com
E-mail	hubermaterials@huber.com
Emergency Telephone Number	CHEMTREC: +1 800 424 9300 or International +1 703 527 3887 +81 03-3560-7316

2. HAZARD IDENTIFICATION

Japan GHS Classification	
Physical Hazards	Not classified
Health Hazard	Not classified
Environmental Hazards	Not classified
GHS label elements	
Symbols/Pictograms	None
Signal Word	None
Hazard statements	Based on available data, the classification criteria are not met
Precautionary Statements	

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Prevention	Do not handle until all safety precautions have been read and understood Employ good industrial hygiene practice Do not breathe dust
Response	IF exposed or concerned: Get medical advice/attention Wash with plenty of soap and water
Storage	Store away from incompatible materials. Keep in a dry place
Disposal	Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified None known
(HNOc)

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture Mixture

Chemical Name	CAS Number	Japan	Japan GHS Classification	TSCA: United States	REACH registration number	Weight-%
Magnesium Hydroxide	1309-42-8	(1)-386 (ENCS) (ISHL)	Not classified	A	01-2119488756-18-0040	75 - 90%
Zinc Molybdenum	22914-58-5 61583-60-6	(1)-781 (ENCS)(ISHL)	H410 - Very toxic to aquatic life with long lasting effects <25% Not classified	A	01-2120800481-68-0000	10 - 25%

Additional Information: TSCA
A: Component is listed on Inventory as Active

4. FIRST AID MEASURES

If inhaled:	Remove victim to fresh air and keep at rest in a position comfortable for breathing
IF ON SKIN:	Wash with plenty of soap and water Take off contaminated clothing and wash before reuse
IF IN EYES:	In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes Call a physician if irritation develops and persists
If swallowed:	Rinse mouth thoroughly with water
Self-Protection of the First Aider	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves
Notes to Physician	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

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Suitable Extinguishing Media Water spray (fog)
Foam
Dry chemical
Carbon dioxide (CO₂)

Unsuitable Extinguishing Media Do not use water jetstream

Special hazards arising from the substance or mixture Avoid dust formation

Fire-fighting measures In case of fire and/or explosion do not breathe fumes
Water mist may be used to cool closed containers
Keep unauthorized personnel away

Special Protective Equipment for Firefighters Wear self-contained breathing apparatus and protective suit

6. ACCIDENTAL RELEASE MEASURES

Protective Equipment and Precautions for Firefighters Avoid dust formation
Ensure adequate ventilation
Use personal protection recommended in Section 8
Avoid contact with eyes and skin. Wear suitable personal protection equipment.
Keep unauthorized personnel away

Environmental Precautions Keep out of drains, sewers, ditches and waterways
Disposal considerations
See section 13 for more information

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 Minimize use of water during clean-up
Recommended filter type: High efficiency particulate air filter (HEPA filter)

Other Information Not applicable

7. HANDLING AND STORAGE

Handling

Technical measures Provide adequate ventilation as well as local exhaust at critical locations
Ensure adequate ventilation
Use personal protection equipment
See section 8 for more information

Advice on safe handling Minimize dust generation and accumulation

Conditions for safe storage, including any incompatibilities Keep containers tightly closed in a cool, well-ventilated place

Hygiene Measures Wash hands thoroughly after handling

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Storage

Packaging compatibilities Keep/store only in original container

Incompatible Products Strong oxidizing agents

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits Provide adequate ventilation as well as local exhaust at critical locations

Magnesium Hydroxide

Japan Not established

Zinc Molybdenum

Japan Not established

Engineering Measures Ensure adequate ventilation, especially in confined areas

Personal Protective Equipment

Respiratory Protection In case of inadequate ventilation wear respiratory protection

Hand protection For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn

Eye Protection Wear safety glasses with side shields (or goggles)

Skin and Body Protection Wear suitable protective clothing.
Chemical resistant apron.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice
Wash thoroughly after handling
Avoid contact with eyes and skin
Do not breathe dust

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:**Physical State**

Solid
Powder

Color

White

Odor

Odorless

Odor Threshold

No information available

pH:

9.4

Freezing Point

Not applicable

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

No data available

Water Solubility

Slightly soluble

Solubility in other solvents

No information available

Partition coefficient

No data available

Autoignition Temperature

Not applicable

Decomposition Temperature

1292 - 1652 °F (700 - 900 °C)

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Specific Gravity 2.63 (H₂O = 1)
No data available.

10. STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	None known
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	None known

11. TOXICOLOGICAL INFORMATION

General Information Users are advised to consider national Occupational Exposure Limits or other equivalent values.

Information on Likely Routes of Exposure

Inhalation	Inhalation of dust in high concentration may cause irritation of respiratory system
Skin	Prolonged or repeated contact may dry skin and cause irritation
Eyes	Dust contact with the eyes can lead to mechanical irritation
Ingestion	Ingestion is not a likely route of exposure
Aspiration hazard	Not an expected route of exposure.

11.1. Information on toxicological effects

Magnesium Hydroxide

Oral LD50 8500 mg/kg Rat

Zinc Molybdenum

Oral LD50 >10000 mg/kg Rat
IARC Not Listed

Acute Toxicity	Based on available data, the classification criteria are not met
Serious eye damage/eye irritation	Dust may cause mechanical irritation to eyes
Respiratory Sensitization	No data available
Skin Sensitization	No data available
Carcinogenicity	There are no known carcinogenic chemicals in this product.

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Target Organ Effects No data available.**Specific target organ toxicity - Single exposure** No data available.**Specific target organ toxicity - Repeated exposure** No data available.**12. ECOLOGICAL INFORMATION****Ecotoxicity** Based on available data, the classification criteria are not met**Persistence and degradability** No data available**Bioaccumulation** No data available.**Mobility in soil** No data available**Hazardous to the ozone layer** No data available**13. DISPOSAL CONSIDERATIONS****Disposal** Dispose of in accordance with federal, state and local regulations**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal**14. TRANSPORT INFORMATION****Mode of Transportation (Road, Water, Air, Rail)**

ADR	Not regulated
RID	Not regulated
ADN	Not regulated
IATA	Not regulated
IMDG/IMO	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

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15. REGULATORY INFORMATION

Global Inventories

Pure substance/mixture

Mixture

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
Magnesium Hydroxide	1309-42-8	215-170-3	01-211948 8756-18-0 040	Y	Y	Y	(1)-386 (ENCS) (ISHL)	KE-22716	Y	Y	Y	Y	A
Zinc Molybdenum	22914-58-5 61583-60-6	245-322-4	01-212080 0481-68-0 000	Y: CAS 61583-60-6 (generics)	Y: DSL-2291 4-58-5 NDSL: 61583-60-6	Y	(1)-781 (ENCS)(ISHL)	KE-11910	Y: (MO-generics)	Y: CAS 22914-58-5 (generics)	Y	Y	A

Legend

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

KECL - Korean Existing and Evaluated Chemical Substances
 IECSC - China Inventory of Existing Chemical Substances
 PICCS - Philippines Inventory of Chemicals and Chemical Substances
 AICS - Australian Inventory of Chemical Substances
 TSCA (Toxic Substances Control Act)
 DSL (Domestic Substance List)
 NDSL (Non-Domestic Substances List)
 Japan - ISHL Notifiable Substances
 ENCS - Japan Existing and New Chemical Substances

Zinc Molybdenum

Japanese Pollutant Release and Transfer Register - Class 1 Substance :453 >= 1.0%

16. OTHER INFORMATION

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Reason for Revision

This SDS complies with the requirements of JIS Z 7250:2010 and JIS Z 7252:2009 (Japan)

Bibliography

NITE GHS Classified list
 Japan Society for occupational health (2015) recommendation of allowable concentrations, etc.
 ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value

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

HUBER

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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)

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