



**ADVANCED
MATERIALS**

Safety Data Sheet

Kemgard® MZM

GHS (Globally Harmonized System)

Issue Date 01/Jan/2024

Print Date 14/Dec/2023

Revision Number 1.4.3

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

1.1. Product identifier

Product Name: Kemgard® MZM

Pure substance/mixture Mixture

Magnesium Hydroxide

CAS Number 1309-42-8

EU REACH registration number 01-2119488756-18-0040

Zinc Molybdenum Oxide

CAS Number 22914-58-5

61583-60-6

EU REACH registration number 01-2120800481-68-0000

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Flame retardant Smoke suppressant

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

Internet www.huberadvancedmaterials.com

E-mail hubermaterials@huber.com

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

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Considered a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Hazards identification**Physical Hazard**

Not classified

Health Hazards

Specific target organ toxicity (STOT) - repeated exposure, category 2

Environmental Hazard

Chronic Aquatic Toxicity Category 3

2.2. Label elements**Symbols/Pictograms****Signal Word**

Warning

Hazard StatementMay cause damage to organs through prolonged or repeated exposure
Harmful to aquatic life with long lasting effects**Precautionary Statements****Prevention**Do not handle until all safety precautions have been read and understood
Employ good industrial hygiene practice
Do not breathe dust
Wear protective gloves/protective clothing/eye protection/face protection
Avoid release to the environment**Response**Get medical advice/attention if you feel unwell
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**

Store away from incompatible materials. Keep in a dry place.

Disposal

Dispose of contents/containers in accordance with local regulations. See Section 13: DISPOSAL CONSIDERATIONS.

SECTION 3: Composition/information on ingredients

Pure substance/mixture

Mixture

Chemical Name	CAS Number	TSCA: United States	EU REACH registration number
Magnesium Hydroxide	1309-42-8	A	01-2119488756-18-0040
Zinc Molybdenum Oxide	22914-58-5	A	01-2120800481-68-0000

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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.
Skin Contact	Wash with plenty of soap and water.
Inhalation	Do not breathe dust. IF INHALED: Remove 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 Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin.

4.3. Indication of any immediate medical attention and special treatment needed Treat symptomatically. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable Extinguishing Media

Use extinguishing agent suitable for type of surrounding fire. Water spray (fog). Dry chemical. Foam. Carbon dioxide (CO₂).

Unsuitable Extinguishing Media

Do not use water jetstream.

5.2. Special hazards arising from the substance or mixture

Non-combustible.

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5.3. Advice for firefighters

Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Fire-fighting measures

Water mist may be used to cool closed containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Keep unauthorized personnel away. Use personal protection recommended in Section 8.

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

Avoid exposure - obtain special instructions before use
Do not handle until all safety precautions have been read and understood.
Minimize dust generation and accumulation
Ensure adequate ventilation
Handle in accordance with good industrial hygiene and safety practice
Use personal protective equipment as required

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed and dry
Store away from incompatible materials

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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Occupational exposure limits**Biological Limit Values**

None

Recommended monitoring procedures

Refer also to national guidance documents for information on currently recommended monitoring procedures

8.2. Exposure 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

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

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

Color

White

Odor

Odorless

Odor Threshold

No information available

pH:

9.4

Melting point / Freezing point

Not applicable

Freezing Point

Not applicable

Flash Point

Not applicable

Evaporation Rate

Not applicable.

Flammability (solid, gas)

Not applicable

Upper flammability limit:

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Lower flammability limit:

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Vapor Pressure

Not applicable

Vapor Density

Not applicable

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Vapor Density	Not applicable
Density	No data available
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)
Viscosity	No information available.
Kinematic viscosity	Not applicable
Oxidizing Properties	Not applicable
Particle Size	No information available
Specific Gravity	2.63 (H2O = 1)
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	Stable under normal conditions
10.2. Chemical stability	Stable under normal conditions
10.3. Possibility of hazardous reactions	No information available
10.4. Conditions to avoid	Dust formation Incompatible materials
10.5. Incompatible materials	Strong oxidizing agents
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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Oral LD50	8500 mg/kg Rat
<u>Zinc Molybdenum Oxide</u>	
Oral LD50	>10000 mg/kg Rat
IARC	Not Listed
Specific target organ toxicity - Repeated exposure	Kidney (based on tubular degeneration/regeneration of male Han Wistar rats at 125 mg/kg/day). NOAEL – 60 mg/kg Rat; Oral; 90-day.

Acute Toxicity	Based on available data, the classification criteria are not met
Respiratory Sensitization	No data available
Serious eye damage/eye irritation	Dust may cause mechanical irritation to eyes
Skin Sensitization	No data available
Carcinogenicity	There are no known carcinogenic chemicals in this product.
Target Organ Effects	Skin. Eyes. Respiratory system.
Specific target organ toxicity - Single exposure	No data available.
Specific target organ toxicity - Repeated exposure	May cause damage to organs through prolonged or repeated exposure if inhaled. Kidney.

Information on Likely Routes of Exposure

Inhalation	Avoid inhalation of the product
Ingestion	Ingestion is not a likely route of exposure
Skin	Prolonged or repeated contact may dry skin and cause irritation
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 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	Harmful to aquatic life with long lasting effects Avoid release to the environment
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Magnesium Hydroxide**WGK Classification (AwSV)** 5209 WGK: nwg**12.2. Persistence and degradability** No data available.**12.3. Bioaccumulative potential** No data available.**Partition coefficient** No data available**Bioconcentration factor (BCF)** No data available.**12.4. Mobility in soil** No data available.**12.5. Results of PBT and vPvB assessment** No data available.**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** Product residue may remain in empty containers. 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**Magnesium Hydroxide****European Waste Catalog** 060299**WGK Classification (AwSV)** 5209 WGK: nwg

SECTION 14: Transport information

Mode of Transportation (Road, Water, Air, Rail)**TDG -Canada** Not regulated
DOT Not regulated

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

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

Mixture

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
Magnesium Hydroxide	1309-42-8	215-170-3	Y	Y	Y	(1)-386 (ENCS) (ISHL)	KE-22716	Y	55-1-01343	Y	Y	Y	A
Zinc Molybdenum Oxide	22914-58-5 61583-60-6	245-322-4	N	Y	Y	(1)-781 (ENCS) (ISHL)	KE-11910	N	Y	N	N	Y	A

REACH No. _____

Magnesium Hydroxide

EU REACH registration number 01-2119488756-18-0040

Turkish KKDIK pre-registration 05-0000192735-90-0000

Zinc Molybdenum Oxide

EU REACH registration number 01-2120800481-68-0000

Turkish KKDIK pre-registration 05-0000192714-03-0000

Harmful to aquatic life with long lasting effects Avoid release to the environment

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5209 WGK: nwg

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance

SECTION 16: Other information

Prepared byHuber Engineered Materials Global Regulatory Affairs
email: regulatory.affairs@huber.com.**GHS Classification**

Considered a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Symbols/Pictograms**Signal Word**

Warning

Hazard StatementsMay cause damage to organs through prolonged or repeated exposure
Harmful to aquatic life with long lasting effects**Hazards identification****Physical Hazard**

Not classified

Health Hazards

Specific target organ toxicity (STOT) - repeated exposure, category 2

Environmental Hazard

Chronic Aquatic Toxicity Category 3

Abbreviations and acronyms

IARC (International Agency for Research on Cancer)
IATA (International Air Transport Association)
IMDG (International Maritime Dangerous Goods)
IUCLID (International Uniform Chemical Information Database)
WHMIS (Workplace Hazardous Materials Information System)
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)
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)
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)

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STEL (Short Term Exposure Limit)
TLV® (Threshold Limit Value)
DNEL (Derived No Effect Level)
SVHC (Substances of Very High Concern)
Land transport (ADR/RID)
BOD (Biochemical oxygen demand)
COD (Chemical oxygen demand)
ICAO (International Civil Aviation Organization)
IMDG (International Maritime Dangerous Goods)
SCBA (Self-Contained Breathing Apparatus) Positive Pressure
PNEC (Predicted No Effect Concentration)
GHS (Globally Harmonized System)

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