



FIRE RETARDANT ADDITIVES

Safety Data Sheet

Kemgard® HPSS-UF

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

Issue Date: 01/Oct/2020
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Revision Number: 1.3
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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Kemgard® HPSS-UF
Pure substance/mixture	Mixture
<u>Magnesium Hydroxide</u>	
CAS Number	1309-42-8
Weight-%	>25
<u>Zinc Oxide</u>	
CAS Number	1314-13-2
Weight-%	10-30
<u>Zinc Molybdenum</u>	
CAS Number	22914-58-5 61583-60-6
Weight-%	>5
Recommended Use	Flame retardant Smoke suppressant
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

Hazardous to the aquatic environment - Acute, category 1
Hazardous to the aquatic environment - Chronic, category 1
H361 - Suspected of damaging fertility or the unborn child
H370 - Causes damage to the following organs:
Respiratory system
&
Systemic Toxicity

Physical Hazards Not classified

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Health Hazard

Causes damage to the following organs: Respiratory system , Systemic Toxicity
Suspected of damaging fertility or the unborn child

Environmental Hazards

Very toxic to aquatic life
Very toxic to aquatic life with long lasting effects

GHS label elements
Symbols/Pictograms

**Signal Word**

Danger

Hazard statements

Causes damage to organs : Respiratory system & Systemic Toxicity Suspected of
damaging fertility or the unborn child Very toxic to aquatic life Very toxic to aquatic
life with long lasting effects

Precautionary Statements
Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Employ good industrial hygiene practice
Do not breathe dust
Wash hands thoroughly after handling
Do not eat, drink or smoke when using this product
Avoid release to the environment

Response

IF exposed or concerned: Call a POISON CENTER or doctor
IF ON SKIN: Wash with plenty of soap and water
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
lenses, if present and easy to do. Continue rinsing
Collect spillage

Storage

Store away from incompatible materials.
Store locked up

Disposal

Dispose of contents/container to an approved waste disposal plant

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	>25
Zinc Oxide	1314-13-2	ENCS: (1)-561 ISHL: (1)-561	H400 - Very toxic to aquatic life	A	01-2119463881-32	10-30

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			H410 - Very toxic to aquatic life with long lasting effects H361 - Suspected of damaging fertility or the unborn child H370 - Causes damage to the following organs: Respiratory system Systemic Toxicity			
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	>5

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

Suitable Extinguishing Media

Water spray (fog)
Dry chemical
Carbon dioxide (CO2)
Foam

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

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
Storage	
Packaging compatibilities	Keep/store only in original container

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits	Provide adequate ventilation as well as local exhaust at critical locations
<u>Magnesium Hydroxide</u> Japan	Not established
<u>Zinc Oxide</u> Japan	TWA: 4 mg/m ³ (total dust) 1 mg/m ³ (respirable dust)
<u>Zinc Molybdenum</u> 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

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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:	8.9
Melting Point / Melting Range	No information available
Initial boiling point	No information available
Freezing Point	No information available
Boiling Point	No information available
Evaporation Rate	Not applicable
Flammability (solid, gas)	No information available
Upper flammability limit:	
Lower flammability limit:	
Vapor Pressure	No data available
Vapor Density	Not applicable
Relative Density	3.5
Water Solubility	Slightly soluble
Solubility in other solvents	No information available
Partition coefficient	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No information available
Viscosity	No information available
VOC Content (%)	Not applicable

10. STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	None known
Conditions to avoid	Strong oxidizing agents.

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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	May cause respiratory tract irritation
Skin	No known hazard in contact with skin
Eyes	Dust contact with the eyes can lead to mechanical irritation
Ingestion	Ingestion is not a likely route of exposure
Symptoms related to the physical, chemical and toxicological characteristics	Dust may cause mechanical irritation to eyes.

11.1. Information on toxicological effects

Magnesium Hydroxide

Oral LD50 8500 mg/kg Rat

Zinc Oxide

Oral LD50 7950 mg/kg Rat

Zinc Molybdenum

Oral LD50 >10000 mg/kg Rat
IARC Not Listed

Acute Toxicity Low hazard for usual industrial or commercial handling

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

Respiratory Sensitization Does not cause sensitization

Skin Corrosion/Irritation Contact with dust can cause mechanical irritation or drying of the skin

Skin Sensitization Not a skin sensitizer

Germ cell mutagenicity No data available.

Reproductive Effects This product does not contain any known or suspected reproductive hazards.

Carcinogenicity This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Specific target organ toxicity - Single exposure No data available.

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Specific target organ toxicity - Repeated exposure Not classified.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Very toxic to aquatic life with long lasting effects
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	UN3077, Environmentally hazardous substances, n.o.s. (Zinc oxide), 9, PG III, Marine Pollutant
RID	UN3077, Environmentally hazardous substances, n.o.s. (Zinc oxide), 9, PG III, Marine Pollutant
ADN	UN3077, Environmentally hazardous substances, n.o.s. (Zinc oxide), 9, PG III, Marine Pollutant
IATA	UN3077, Environmentally hazardous substances, n.o.s. (Zinc oxide), 9, PG III, Marine Pollutant
IMDG/IMO	UN3077, Environmentally hazardous substances, n.o.s. (Zinc oxide), 9, PG III, Marine Pollutant

14.1. UN number	UN3077
14.2. UN proper shipping name	Environmentally hazardous substance, solid, n.o.s. Zinc oxide
14.3. Transport hazard class(es)	9
14.4. Packing group	III
14.5. Environmental hazards	Yes Marine Pollutant
14.6. Special precautions for user	Do not handle until all safety precautions have been read and understood.
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable

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Marine Pollutant



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 Oxide	1314-13-2	215-222-5	01-211946 3881-32	Y	Y	Y	ENCS: (1)-561 ISHL: (1)-561	KE-35565	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)

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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

Prepared by	Huber Engineered Materials Global Regulatory Affairs email: regulatory.affairs@huber.com
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 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