FIRE RETARDANT ADDITIVES

Safety Data Sheet

Kemgard® 911B-LSA

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

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Kemgard® 911B-LSA

Pure substance/mixture Mixture

Zinc Oxide
CAS Number 1314-13-2
Weight-% >25
Zinc Molybdenum
CAS Number 22914-58-5
Weight-% >25

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

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 : Systemic Toxicity & Respiratory system 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	REACH registration number	Weight-%
Zinc Oxide	1314-13-2	ENCS: (1)-561 ISHL: (1)-561	H400 - Very toxic to aquatic life 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	01-2119463881-32	>25

			Systemic Toxicity		
Zinc Molybdenum	22914-58-5	(1)-781 (ENCS)(ISHL)	Not classified	01-2120800481-68-0000	>25

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 exhaustion 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 exhaustion at critical locations

Zinc Oxide

Japan

TWA: 4 mg/m³ (total dust)
1 mg/m³ (respirable dust)

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:	6.5 5% Water suspension
Melting Point / Melting Range	No information available
Initial boiling point	No information available
Freezing Point	No information available
Boiling Point	No information available
Flash Point:	Not applicable. Product/Substance is inorganic.
Evaporation Rate	Not applicable
Flammability (solid, gas)	Non-combustible
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable
Vapor Pressure	No data available
Vapor Density	No data available
Relative Density	5.1
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.
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

Zinc Oxide	
Oral LD50	7950 mg/kg Rat
Zinc Molybdenum	
Oral LD50	>10000 mg/kg Rat
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. Based on available data, the classification criteria are not met
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.
Specific target organ toxicity - Repeated exposure	Based on available data, the classification criteria are not met.

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	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 Marine Pollutant
14.3. Transport hazard class(es)	9
Subsidiary Risk	-
14.4. Packing group	III
14.5. Environmental hazards	Marine Pollutant Yes
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



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
Zinc Oxide	1314-13-2	215-222-5	01-2119463881-32	Y	Y	Y	ENCS: (1)-561 ISHL: (1)-561	KE-35565	Y	Y	Y	Y	A
Zinc Molybdenum	22914-58-5	245-322-4	01-2120800481-68-0000	N	Y	Y	(1)-781 (ENCS)(ISHL)	KE-11910	N	N	N	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

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