FIRE RETARDANT ADDITIVES

Safety Data Sheet

Kemgard® 1100A

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

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Kemgard® 1100A

Pure substance/mixture Mixture

Talc
CAS Number 14807-96-6
Weight-% 75 - 90
Molybdenum zinc oxide
CAS Number 22914-58-5
Weight-% 10 - 25
Crystalline Silica, quartz (impurity)
CAS Number 14808-60-7
Weight-% <0.1

Recommended Use Flame retardant Smoke suppressant

Uses advised against None known

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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

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

Additional Information: Crystalline silica (quartz) has been classified by the International Agency for Research on Cancer (IARC) as a known human carcinogen (Group 1)

Emergency Overview Treat symptomatically

Hazards not otherwise classified (HNOC) None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture Mixture

Chemical Name	CAS Number	Japan	Japan GHS Classification	TSCA: United States	REACH registration number	Weight-%
Talc	14807-96-6	(1)-468 (ENCS)(ISHL)		A	Exempt	75 - 90
Molybdenum zinc oxide	22914-58-5	(1)-781 (ENCS)(ISHL)	Not classified	A	01-2120800481-68-0000	10 - 25
Crystalline Silica, quartz (impurity)	14808-60-7	(1)-548(ENCS)(ISHL)	Carcinogenicity category 1A Germ cell mutagenicity category 2 Systemic Toxicity Hazard Category: 1 Respiratory system Immune system Kidney	A	Exempt	<0.1

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)
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 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

Talc

Japan TWA: 0.5 mg/m³ (respirable dust)
2 mg/m³ (total dust)

Molybdenum zinc oxide

Japan Not established

Crystalline Silica, quartz (impurity)

Japan Ceiling: 0.03 mg/m³ (respirable dust)
TWA 0.025 mg/m³ (respirable fraction)

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

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:	No data available.
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not applicable
Upper flammability limit:	
Lower flammability limit:	
Vapor Pressure	No data available
Vapor Density	No data available
Relative Density	2.8 g/cm³
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 (%)	0%
Molecular Weight	Not available
Molecular Weight	Not available
Specific Gravity	2.8 (H2O = 1)

10. STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions
Chemical stability	Stable under normal conditions
Possibility of hazardous reactions	None known
Conditions to avoid	Incompatible materials. Dust formation.
Incompatible materials	Strong oxidizing agents Strong acids
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	Do not breathe dust Inhalation of dust in high concentration may cause irritation of respiratory system
Skin	Contact with dust can cause mechanical irritation or drying of the skin
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

Molybdenum zinc oxide

Oral LD50	>10000 mg/kg Rat

Crystalline Silica, quartz (impurity)

Oral LD50	500 mg/kg Rat Mouse
ACGIH	Group 2A - Probably Carcinogenic to Humans
IARC	Group 1 - Carcinogenic to Humans

Acute Toxicity	Avoid inhalation of dust. Product dust may be irritating to eyes, skin and respiratory system
Reproductive Toxicity	No data available.
Carcinogenicity	Crystalline silica (quartz) has been classified by the International Agency for Research on Cancer (IARC) as a known human carcinogen (Group 1).
Target Organ Effects	Respiratory system. Eyes. Skin.
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)

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

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
Talc	14807-96-6	238-877-9	Exempt	Y	Y	Y	(1)-468 (ENCS)(ISHL)	KE-32773	Y	Y	Y	Y	A
Molybdenum zinc oxide	22914-58-5	245-322-4	01-2120800481-68-0000	Y: CAS 61583-60-6 (generics)	Y: DSL-22914-58-5 NDSL: 61583-60-6	Y	(1)-781 (ENCS)(ISHL)	KE-11910 KE-25463	-	-	Y: 61583-60-6	Y	A
Crystalline Silica, quartz (impurity)	14808-60-7	238-878-4	Exempt	Y	Y	Y	(1)-548(ENCS)(ISHL)	KE-29983	Y	Y	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

Japan - ISHL Notifiable Substances
Zinc and compounds 30-35%

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
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

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End of Safety Data Sheet