



FIRE RETARDANT ADDITIVES

# Safety Data Sheet

## Kemgard® 981-UF

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

Issue Date: 25/Sep/2020

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Revision Number: 1.4

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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Kemgard® 981-UF
Pure substance/mixture	Mixture
<u>Zinc Oxide</u>	
CAS Number	1314-13-2
Weight-%	>25
<u>Zinc Phosphate</u>	
CAS Number	7779-90-0
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	<a href="http://www.hubermaterials.com">www.hubermaterials.com</a>
E-mail	<a href="mailto:hubermaterials@huber.com">hubermaterials@huber.com</a>
Emergency Telephone Number	CHEMTREC: +1 800 424 9300 or International +1 703 527 3887 +81 03-3560-7316

## 2. HAZARD IDENTIFICATION

### Japan GHS Classification

Hazard Category:

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

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### 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	TSCA: United States	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	A	01-2119463881-32	>25

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			following organs: Respiratory system Systemic Toxicity			
Zinc Phosphate	7779-90-0	(1)-526 (ENCS) (1)-1181 (ENCS)		A	01-2119485044-40	>25

### 4. FIRST AID MEASURES

<b>If inhaled:</b>	Remove victim to fresh air and keep at rest in a position comfortable for breathing
<b>IF ON SKIN:</b>	Wash with plenty of soap and water Take off contaminated clothing and wash before reuse
<b>IF IN EYES:</b>	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
<b>If swallowed:</b>	Rinse mouth thoroughly with water
<b>Self-Protection of the First Aider</b>	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves
<b>Notes to Physician</b>	Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

<b>Suitable Extinguishing Media</b>	Water spray (fog) Foam Dry chemical Carbon dioxide (CO2)
<b>Unsuitable Extinguishing Media</b>	Do not use water jetstream
<b>Special hazards arising from the substance or mixture</b>	Avoid dust formation
<b>Fire-fighting measures</b>	In case of fire and/or explosion do not breathe fumes Water mist may be used to cool closed containers Keep unauthorized personnel away
<b>Special Protective Equipment for Firefighters</b>	Wear self-contained breathing apparatus and protective suit

### 6. ACCIDENTAL RELEASE MEASURES

<b>Protective Equipment and Precautions for Firefighters</b>	Avoid dust formation Ensure adequate ventilation Use personal protection recommended in Section 8 Avoid contact with eyes and skin. Wear suitable personal protection equipment.
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	Keep unauthorized personnel away
<b>Environmental Precautions</b>	Keep out of drains, sewers, ditches and waterways Disposal considerations See section 13 for more information
<b>Methods and material for containment and cleaning up</b>	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)
<b>Other Information</b>	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

### Zinc Oxide

Japan

TWA: 4 mg/m<sup>3</sup> (total dust)  
1 mg/m<sup>3</sup> (respirable dust)

**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

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Wash thoroughly after handling  
Avoid contact with eyes and skin  
Do not breathe dust

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	
<b>Physical State</b>	Solid Powder
<b>Color</b>	White
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	No information available
<b>pH:</b>	6.5 (5% water suspension)
<b>Melting Point / Melting Range</b>	Not applicable
<b>Freezing Point</b>	Not applicable
<b>Boiling Point</b>	No information available
<b>Evaporation Rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Not applicable
<b>Upper flammability limit:</b>	
<b>Lower flammability limit:</b>	
<b>Vapor Density</b>	Not applicable
<b>Water Solubility</b>	Slightly soluble
<b>Solubility in other solvents</b>	
<b>Autoignition Temperature</b>	Not applicable
<b>VOC Content (%)</b>	Not applicable
<b>Specific Gravity</b>	4.2 g/cm <sup>3</sup> , 20° C

## 10. STABILITY AND REACTIVITY

<b>Reactivity</b>	Stable under normal conditions
<b>Chemical stability</b>	Stable under normal conditions
<b>Possibility of hazardous reactions</b>	None known
<b>Conditions to avoid</b>	Strong oxidizing agents.
<b>Incompatible materials</b>	Strong oxidizing agents
<b>Hazardous decomposition products</b>	None known

## 11. TOXICOLOGICAL INFORMATION

<b>General Information</b>	Users are advised to consider national Occupational Exposure Limits or other equivalent values.
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### Information on Likely Routes of Exposure

<b>Inhalation</b>	May cause respiratory tract irritation
<b>Skin</b>	No known hazard in contact with skin

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<b>Eyes</b>	Dust contact with the eyes can lead to mechanical irritation
<b>Ingestion</b>	Ingestion is not a likely route of exposure
<b>Aspiration hazard</b>	Based on available data, the classification criteria are not met.
<b>Symptoms related to the physical, chemical and toxicological characteristics</b>	Dust may cause mechanical irritation to eyes.

#### 11.1. Information on toxicological effects

##### Zinc Oxide

Oral LD50 7950 mg/kg Rat

##### Zinc Phosphate

Oral LD50 > 5000 mg/kg Rat

<b>Acute Toxicity</b>	Low hazard for usual industrial or commercial handling
<b>Chronic Toxicity</b>	No data available.
<b>Chronic Effects</b>	No data available.
<b>Serious eye damage/eye irritation</b>	Dust may cause mechanical irritation to eyes
<b>Respiratory Sensitization</b>	Does not cause sensitization
<b>Skin Corrosion/Irritation</b>	Prolonged or repeated contact may dry skin and cause irritation
<b>Skin Sensitization</b>	Not a skin sensitizer
<b>Mutagenicity</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Reproductive Effects</b>	This product does not contain any known or suspected reproductive hazards.
<b>Carcinogenicity</b>	This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.
<b>Target Organ Effects</b>	Skin. Eyes. Respiratory system.
<b>Specific target organ toxicity - Single exposure</b>	Not classified.
<b>Specific target organ toxicity - Repeated exposure</b>	Not classified.

## 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Very toxic to aquatic life with long lasting effects
<b>Persistence and degradability</b>	No data available

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**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)

<b>ADR</b>	UN3077, Environmentally hazardous substances, n.o.s. (Zinc oxide), 9, PG III, Marine Pollutant
<b>ADN</b>	UN3077, Environmentally hazardous substances, n.o.s. (Zinc oxide), 9, PG III, Marine Pollutant
<b>IATA</b>	UN3077, Environmentally hazardous substances, n.o.s. (Zinc oxide), 9, PG III, Marine Pollutant
<b>IMDG/IMO</b>	UN3077, Environmentally hazardous substances, n.o.s. (Zinc oxide), 9, PG III, Marine Pollutant
<b>ICAO</b>	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** UN3077, Environmentally hazardous substances, n.o.s. (Zinc oxide), 9, PG III, Marine Pollutant

**14.3. Transport hazard class(es)** 9

**Subsidiary Risk** -

**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**

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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
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 Phosphate	7779-90-0	231-944-3 *	01-211948 5044-40	Y	Y	Y	(1)-526 (ENCS) (1)-1181 (ENCS)	KE-34945	Zinc salts	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



**16. OTHER INFORMATION**

<b>Prepared by</b>	Huber Engineered Materials Global Regulatory Affairs email: regulatory.affairs@huber.com
<b>Reason for Revision</b>	This SDS complies with the requirements of JIS Z 7250:2010 and JIS Z 7252:2009 (Japan)
<b>Bibliography</b>	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
<b>Abbreviations and acronyms</b>	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)
<b>Disclaimer</b>	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**