



Kemgard® 981

GHS (Globally Harmonized System)

Issue Date 01/Jan/2024

Print Date 14/Dec/2023

Revision Number 1.4.1

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

1.1. Product identifier

Product Name: Kemgard® 981

Pure substance/mixture Mixture

Zinc Oxide

CAS Number 1314-13-2

Weight-% >25

Zinc Phosphate

CAS Number 7779-90-0

Weight-% >25

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

GHS Classification

Hazards identification

Physical Hazard Not classified

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Health Hazards Not classified

Environmental Hazard Acute Aquatic Toxicity: Category 1
Chronic Aquatic Toxicity: Category 1

2.2. Label elements

Symbols/Pictograms



Signal Word Warning

Hazard Statements H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

Prevention P202 - Do not handle until all safety precautions have been read and understood
P273 - Avoid release to the environment

Response P391 - Collect spillage
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water [or shower]
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Storage Store away from incompatible materials.

Disposal P501 - Dispose of contents/containers in accordance with local regulations.

2.3. Other hazards No information available.

SECTION 3: Composition/information on ingredients

Pure substance/mixture

Mixture

Chemical Name	CAS Number	TSCA: United States	EC No	EU REACH registration number	GHS Classification	Weight-%
Zinc Oxide	1314-13-2	A	215-222-5	01-211946 3881-32.	Aquatic Acute Category 1; H400 Aquatic Chronic Category 1;	>25

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					H410	
Zinc Phosphate	7779-90-0	A	231-944-3 *	01-211948 5044-40.	Aquatic Acute Category 1; H400 Aquatic Chronic Category 1; H410	>25

SECTION 4: First aid measures

4.1. Description of first aid measures

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.
Ingestion	Rinse mouth thoroughly with water.
Inhalation	If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
Aspiration hazard	Based on available data, the classification criteria are not met.

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 None known.

Flammable Properties None known.

5.2. Special hazards arising from the substance or mixture Non-combustible.

Hazardous Combustion None known

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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 Standard procedure for chemical fires.

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. Dispose of in accordance with federal, state and local regulations.

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 Minimize dust generation and accumulation. Ensure adequate ventilation. Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities Keep container tightly closed and dry. Store away from incompatible materials. See section 10.

SECTION 8: Exposure controls/personal protection

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8.1. Control parameters

Occupational exposure limits

Zinc Oxide

India

STEL: 10 mg/m³ (fume)
TWA: 5 mg/m³ (fume); 10 mg/m³ (total dust)

ACGIH

STEL: 10 mg/m³ (respirable)

OSHA

TWA: 2 mg/m³ (respirable)
PEL: 15 mg/m³ (total dust)
5 mg/m³ (respirable fraction)

Zinc Phosphate

OSHA

15 mg/m³ Total Dust
5 mg/m³ Respirable Dust

Biological Limit Values

None

Recommended monitoring procedures

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

DNEL (Derived No Effect Level) No data available**PNEC (Predicted No Effect Concentration)** No information available

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.

Hand Protection

For operations where prolonged or repeated skin contact may occur, impervious gloves should be worn.

Respiratory Protection

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Thermal hazards

Wear suitable protective clothing.

Hygiene Measures

Follow general hygiene considerations recognized as common good workplace practices.

Environmental Exposure Controls

Dispose of in accordance with local regulations. Do not empty into drains or water courses.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical State	Solid. Powder.
Color	White
Odor	Odorless
Odor Threshold	No information available
pH:	6.5
Melting Point / Melting Range	Not applicable
Boiling Point	No information available
Freezing Point	Not applicable
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not applicable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Water Solubility	Slightly soluble
Partition coefficient	No information available
Autoignition Temperature	Not applicable
Specific Gravity	4.2 g/cm ³ , 20° C
Oxidizing Properties	Not applicable
VOC Content (%)	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	None under normal processing

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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.**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
Aspiration hazard	Based on available data, the classification criteria are not met.
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 Phosphate

Oral LD50 > 5000 mg/kg Rat

Acute Toxicity Low hazard for usual industrial or commercial handling**Chronic Toxicity** No data available.**Chronic Effects** No data available.**Respiratory Sensitization** Does not cause sensitization**Serious eye damage/eye irritation** Dust may cause mechanical irritation to eyes**Skin Corrosion/Irritation** Prolonged or repeated contact may dry skin and cause irritation**Skin Sensitization** Not a skin sensitizer

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Mutagenicity	No information available
Germ cell mutagenicity	No information 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.
Target Organ Effects	Skin. Eyes. Respiratory system.
Specific target organ toxicity - Single exposure	Not classified.
Specific target organ toxicity - Repeated exposure	Not classified.

SECTION 12: Ecological information

12.1. Ecotoxicity Very toxic to aquatic life with long lasting effects.

Zinc Oxide - 1314-13-2

WGK Classification (AwSV) 2187 WGK: 2

Zinc Phosphate - 7779-90-0

Germany - Water Classification (AwSV) - Annex 3: 5067 hazard class 2 - hazard to waters

12.2. Persistence and degradability No data available.

12.3. Bioaccumulative potential No data available.

Partition coefficient Not available.

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment This substance does not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects None known

SECTION 13: Disposal considerations

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13.1. Waste treatment methods

Contaminated Packaging	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
Disposal Methods	Dispose of waste product or used containers according to local regulations Do not allow to enter into surface water or drains

SECTION 14: Transport information

Mode of Transportation (Road, Water, Air, Rail)

DOT	Not regulated in non-bulk packages (<119 gal) UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Zinc oxide, Zinc phosphate)
ADR	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Zinc oxide, Zinc phosphate)
RID	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Zinc oxide, Zinc phosphate)
ADN	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Zinc oxide, Zinc phosphate)
IATA	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Zinc oxide, Zinc phosphate)
IMDG/IMO	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Zinc oxide, Zinc phosphate)
ICAO	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Zinc oxide, Zinc phosphate)

14.1. UN number	UN3077
14.2. UN proper shipping name	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S (Zinc oxide, Zinc phosphate)
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.

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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code



Marine Pollutant



SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Global Inventories

Chemical Name	CAS Number	EC No	EU REACH registration number	Australia (AIC)	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	01-211946388 1-32	Y	Y	Y	ENCS: (1)-561 ISHL: (1)-561	KE-35565	Y	Y	Y	Y	A
Zinc Phosphate	7779-90-0	231-944-3 *	01-211948504 4-40	Y	Y	Y	(1)-526 (ENCS) (1)-1181 (ENCS)	KE-34945	Zinc salts	Y	Y	Y	A

SECTION 16: Other information

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Reason for Revision GHS (Globally Harmonized System).

GHS Classification

Labeling

Symbols/Pictograms



Signal Word Warning

Hazard Statements H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

Training Advice Do not handle until all safety precautions have been read and understood.

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)
- DOT (Department of Transportation)
- OSHA (Occupational Safety and Health Administration of the US Department of Labor)
- TWA (Time-Weighted Average)
- 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)
- STEL (Short Term Exposure Limit)
- TLV® (Threshold Limit Value)
- DNEL (Derived No Effect Level)
- SVHC (Substances of Very High Concern)
- BOD (Biochemical oxygen demand)
- COD (Chemical oxygen demand)
- ICAO (International Civil Aviation Organization)
- IMDG (International Maritime Dangerous Goods)
- ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
- RID (Agreement Concerning the International Carriage of Dangerous Goods by Rail)
- SCBA (Self-Contained Breathing Apparatus) Positive Pressure
- PNEC (Predicted No Effect Concentration)
- GHS (Globally Harmonized System)
- TSCA (Toxic Substances Control Act)

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

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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