



## Kemgard® 620

GHS (Globally Harmonized System)

Issue Date 25/Jan/2024

Print Date 26/Jan/2024

Revision Number 1.3.4

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

#### 1.1. Product identifier

**Product Name:** Kemgard® 620

**Pure substance/mixture** Mixture

#### Aluminum Hydroxide

**CAS Number** 21645-51-2

**EU REACH registration number** 01-2119529246-39

#### Zinc Molybdenum Oxide

**CAS Number** 22914-58-5

**EU REACH registration number** 61583-60-6  
01-2120800481-68-0000

#### 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](http://www.huberadvancedmaterials.com)

**E-mail** [hubermaterials@huber.com](mailto: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

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## GHS Classification

Considered a hazardous substance or mixture according to the Globally Harmonized System (GHS)

## Hazards identification

### Physical Hazard

Not classified

### Health Hazards

Specific target organ toxicity (STOT) - repeated exposure, category 2

### Environmental Hazard

Chronic Aquatic Toxicity Category 3

## 2.2. Label elements

### Symbols/Pictograms



### Signal Word

Warning

### Hazard Statement

May cause damage to organs (kidney) through prolonged or repeated exposure  
Harmful to aquatic life with long lasting effects

## Precautionary Statements

### Prevention

Do not handle until all safety precautions have been read and understood  
Employ good industrial hygiene practice  
Do not breathe dust  
Wear protective gloves/protective clothing/eye protection/face protection  
Avoid release to the environment

### Response

Get medical help if you feel unwell  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
IF ON SKIN: Wash with plenty of soap and water

### Storage

Keep in a dry place. Store away from incompatible materials. Collect spillage.

### Disposal

Dispose of contents/containers in accordance with local regulations. See Section 13: DISPOSAL CONSIDERATIONS.

## SECTION 3: Composition/information on ingredients

Pure substance/mixture

Mixture

Chemical Name	CAS Number	TSCA: United States	EU REACH registration number
Aluminum Hydroxide	21645-51-2	A	01-2119529246-39
Zinc Molybdenum Oxide	22914-58-5	A	01-2120800481-68-0000

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## SECTION 4: First aid measures

### 4.1. Description of first aid measures

**General Advice**

When in doubt or if symptoms are observed, get medical advice. Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

**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.

**Inhalation**

Do not breathe dust. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.

**Ingestion**

Rinse mouth thoroughly with water.

**Aspiration hazard**

Not an expected route of exposure.

**Notes to Physician**

Treat symptomatically.

**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 (CO<sub>2</sub>).

**Unsuitable Extinguishing Media**

Do not use water jetstream.

### 5.2. Special hazards arising from the substance or mixture

Non-combustible.

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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

Water mist may be used to cool closed containers.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Ensure adequate ventilation. Use personal protection recommended in Section 8. Keep unauthorized personnel away.

**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.

**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

Avoid exposure - obtain special instructions before use  
Do not handle until all safety precautions have been read and understood.  
Minimize dust generation and accumulation  
Ensure adequate ventilation  
Handle in accordance with good industrial hygiene and safety practice  
Use personal protective equipment as required

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

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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## Occupational exposure limits

### Biological Limit Values

None

### Recommended monitoring procedures

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

## 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.

#### Thermal hazards

None known.

#### Hygiene Measures

Follow general hygiene considerations recognized as common good workplace practices

#### Environmental Exposure Controls

Dispose of in accordance with local regulations

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance:

Physical State	Solid Powder
Color	White to off-white
Odor	Odorless
Odor Threshold	No information available
pH:	8.4 (5% water suspension)
Melting Point / Melting Range	Not applicable
Melting point / Freezing point	Not applicable
Boiling Point	Not applicable
Freezing Point	Not applicable
Flash Point	Non-combustible
Evaporation Rate	Not applicable.
Flammability (solid, gas)	Not applicable
Upper flammability limit:	--
Lower flammability limit:	--

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Vapor Pressure	Not applicable
Vapor Density	Not applicable
Vapor Density	Not applicable
Density	2.5 – 2.7 g/cm <sup>3</sup> , 20°C
Relative Density	2.6 g/cm <sup>3</sup> , 20° C
Water Solubility	11.7 mg/l , 25° C
Solubility in other solvents	No data available
Partition coefficient	Not applicable
Autoignition Temperature	Not applicable
Decomposition Temperature	No data available
Viscosity	Not applicable.
Kinematic viscosity	Not applicable
Oxidizing Properties	Not applicable
Particle Size	No information available
VOC Content (%)	Not applicable

## 9.2. Other information

### 9.2.1. Information with regard to physical hazard classes

Not applicable

### 9.2.2. Other safety characteristics

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	No specific hazard known
10.4. Conditions to avoid	Incompatible materials Dust formation
10.5. Incompatible materials	None known
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.

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

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### Aluminum Hydroxide

Oral LD50

> 2000 mg/kg Rat

Inhalation LC50

Rat > 2.3 mg/l (Al<sub>2</sub>O<sub>3</sub>) Aerosol Maximum attainable concentration

IARC

Not Listed

### Zinc Molybdenum Oxide

Oral LD50

>10000 mg/kg Rat

IARC

Not Listed

Target Organ Effects

Kidney (based on tubular degeneration/regeneration of male Han Wistar rats at 125 mg/kg/day)

### Acute Toxicity

No data available

### Respiratory Sensitization

Inhalation of dust in high concentration may cause irritation of respiratory system.

### 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

### 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.

### Target Organ Effects

Skin. Eyes. Respiratory system.

### Specific target organ toxicity - Single exposure

No data available.

### Specific target organ toxicity - Repeated exposure

May cause damage to organs through prolonged or repeated exposure if inhaled. Kidney.

### Mixture versus substance information

Mixture

### Information on Likely Routes of Exposure

#### Inhalation

Avoid inhalation of the product

#### Ingestion

Ingestion is not a likely route of exposure

#### Skin

Prolonged or repeated contact may dry skin and cause irritation

#### Eyes

Dust contact with the eyes can lead to mechanical irritation

#### Aspiration hazard

Not an expected route of exposure.

## 11.2. Information on other hazards

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**11.2.1. Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors

**11.2.2. Other information** Not applicable

## SECTION 12: Ecological information

**12.1. Toxicity** Harmful to aquatic life with long lasting effects Avoid release to the environment

### Aluminum Hydroxide

**WGK Classification (AwSV)** 5220 WGK: nwg

**12.2. Persistence and degradability** No data available.

**12.3. Bioaccumulative potential** No data available.

**Partition coefficient** Not applicable

**Bioconcentration factor (BCF)** No data available.

**12.4. Mobility in soil** No data available.

**12.5. Results of PBT and vPvB assessment** No data available.

**12.6. Endocrine disrupting properties** This product does not contain any known or suspected endocrine disruptors

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal Methods** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging** Product residue may remain in empty containers. 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

### Aluminum Hydroxide

**European Waste Catalog** 060299



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WGK Classification (AwSV) 5220 WGK: nwg

## SECTION 14: Transport information

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

TDG -Canada	Not regulated
DOT	Not regulated
ADR	Not regulated
RID	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated
ICAO	Not regulated

14.1. UN number None

14.2. UN proper shipping name None

14.3. Transport hazard class(es) None

Subsidiary Risk -

14.4. Packing group None

14.5. Environmental hazards No

14.6. Special precautions for user Not applicable

14.7. Maritime transport in bulk according to IMO instruments  
Not applicable

## SECTION 15: Regulatory information

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

#### Global Inventories

Pure substance/mixture

Mixture

Chemical Name	CAS Number	EC No	Australia (AIC)	Canada (DSL)	China (IECSC)	Japan	S. Korea (KECL)	Mexico	Thailand (TECI)	New Zealand	Philippines (PICCS)	Taiwan	TSCA: United States
Aluminum Hydroxide	21645-51-2	244-492-7	Y	Y	Y	(1)-17 (ENCS); ISHL	KE-00980	Y	55-1-02594	Y	Y	Y	A
Zinc Molybdenum	22914-58-	245-322-4	N	Y:	Y	(1)-781	KE-11910	Y:	Y	Y	Y	Y	A

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Oxide	5 61583-60- 6			DSL-2291 4-58 -5 NDSL: 61583-60- 6	(ENCS)(IS HL)		(MO-gene rics)					
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### Aluminum Hydroxide

EU REACH registration number 01-2119529246-39

Turkish KKDIK pre-registration 05-0000193352-73-0000

### Zinc Molybdenum Oxide

EU REACH registration number 01-2120800481-68-0000

### Germany

Harmful to aquatic life with long lasting effects Avoid release to the environment

### Aluminum Hydroxide

WGK Classification (AwSV) 5220 WGK: nwg

## 15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance

## SECTION 16: Other information

### Prepared by

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

### GHS Classification

Considered a hazardous substance or mixture according to the Globally Harmonized System (GHS)

### Symbols/Pictograms



### Signal Word

Warning

### Hazard Statements

May cause damage to organs (kidney) through prolonged or repeated exposure  
Harmful to aquatic life with long lasting effects

### Hazards identification

#### Physical Hazard

Not classified

#### Health Hazards

Specific target organ toxicity (STOT) - repeated exposure, category 2

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Chronic Aquatic Toxicity Category 3

**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)  
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)  
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA)  
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)  
Land transport (ADR/RID)  
BOD (Biochemical oxygen demand)  
COD (Chemical oxygen demand)  
ICAO (International Civil Aviation Organization)  
IMDG (International Maritime Dangerous Goods)  
SCBA (Self-Contained Breathing Apparatus) Positive Pressure  
PNEC (Predicted No Effect Concentration)  
GHS (Globally Harmonized System)

**Disclaimer**

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**End of Safety Data Sheet**