



**Kemgard® 620**

This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006  
COMMISSION REGULATION (EU) No. 2020/878

Issue Date 25/Jan/2024  
Print Date 26/Jan/2024

Revision Number 1.3.4  
Page 1 of 12

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

**1.1. Product identifier**

**Product Name:** Kemgard® 620  
**Chemical Name** --  
**Pure substance/mixture** Mixture

**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)

**Contact E-Mail** [www.huberadvancedmaterials.com/contact](http://www.huberadvancedmaterials.com/contact)

**1.4. Emergency telephone number** CHEMTREC: +1 800 424 9300 or International +1 703 527 3887

**Poison control center phone number** National Anti-Poison Center UK: +44 844 892 0111 (National Poisons Information Service)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**(CLP) Regulation (EC 1272/2008)** This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP]

**Hazards identification**

**Physical Hazard** Not classified

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

# Safety Data Sheet

Kemgard® 620

Issue Date 25/Jan/2024

Print Date 26/Jan/2024

Revision Number 1.3.4

Page 2 of 12

## Environmental Hazard

Chronic Aquatic Toxicity, Category 3

## 2.2. Label elements

### Symbols/Pictograms



### Signal Word

Warning

### Hazard Statements

H373 – May cause damage to organs (kidneys) through prolonged or repeated exposure  
H412 - Harmful to aquatic life with long lasting effects

## Precautionary Statements

### Prevention

P260 - Do not breathe dust  
P273 - Avoid release to the environment  
Do not handle until all safety precautions have been read and understood  
Employ good industrial hygiene practice  
Wash hands thoroughly after handling

### Response

P314 - Get medical advice/attention 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

### Disposal

P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable.

## 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixture

Mixture

Chemical Name	CAS Number	EC No	(CLP) Regulation (EC 1272/2008)	Weight-%
Aluminum Hydroxide	21645-51-2	244-492-7	Not classified.	> 75
Zinc Molybdenum Oxide	22914-58-5 61583-60-6	245-322-4	Acute Tox. 4, H332 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 2, H411.	< 25

# Safety Data Sheet

Kemgard® 620

Issue Date 25/Jan/2024

Print Date 26/Jan/2024

Revision Number 1.3.4

Page 3 of 12

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>General Advice</b>	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.
<b>Eye Contact</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.
<b>Skin Contact</b>	Wash with plenty of soap and water.
<b>Inhalation</b>	Do not breathe dust. IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
<b>Ingestion</b>	Rinse mouth thoroughly with water.
<b>Aspiration hazard</b>	Not an expected route of exposure.
<b>Notes to Physician</b>	Treat symptomatically.
<b>4.2. Most important symptoms and effects, both acute and delayed</b>	Dust contact with the eyes can lead to mechanical irritation. Contact with dust can cause mechanical irritation or drying of the skin.
<b>4.3. Indication of any immediate medical attention and special treatment needed</b>	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.

### 5.3. Advice for firefighters

# Safety Data Sheet

Kemgard® 620

Issue Date 25/Jan/2024

Print Date 26/Jan/2024

Revision Number 1.3.4

Page 4 of 12

**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****Occupational exposure limits**Aluminum Hydroxide

# Safety Data Sheet

## Kemgard® 620

Issue Date 25/Jan/2024

Print Date 26/Jan/2024

Revision Number 1.3.4

Page 5 of 12

<b>ACGIH</b>	TLV/TWA 8-hr: 1 mg/m <sup>3</sup> (respirable fraction)
<b>OSHA</b>	TWA: 15 mg/m <sup>3</sup> (Total Dust) 5 mg/m <sup>3</sup> (Respirable Dust)
<b>NIOSH</b>	TWA: 5 mg/m <sup>3</sup> (respirable dust); 10 mg/m <sup>3</sup> TWA (total dust)
<b>France</b>	Not established (Non établi)
<b>France</b>	Not established (Non établi)
<b>Poland</b>	2.5 mg/m <sup>3</sup> (inhalable); 1.2 mg/m <sup>3</sup> (respirable)
<b>Switzerland</b>	TWA: 3 mg/m <sup>3</sup>
<b>United Kingdom</b>	10 mg.m-3 (inhalable); 4 mg.m-3 (respirable)
<b><u>Zinc Molybdenum Oxide</u></b>	
<b>ACGIH</b>	TWA: 10 mg/m <sup>3</sup> dust 0.5 mg/m <sup>3</sup> Respirable fraction
<b>OSHA</b>	TWA: 5 mg/m <sup>3</sup> (respirable); 10 mg/m <sup>3</sup> (dust) PEL: 5 mg/m <sup>3</sup> (respirable)
<b>NIOSH</b>	TWA 8-hr: 10 mg/m <sup>3</sup>
<b>Bulgaria</b>	TWA: 10 mg/m <sup>3</sup>
<b>Czech Republic</b>	Ceiling: 25 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>
<b>Estonia</b>	TWA: 5 mg/m <sup>3</sup> (respirable dust) 10 mg/m <sup>3</sup> (total dust)
<b>Estonia</b>	STEL: 0.5 mg/m <sup>3</sup>
<b>Finland</b>	TWA: 0,5 mg/m <sup>3</sup>
<b>France</b>	VLE: 10 mg/m <sup>3</sup> VME: 5 mg/m <sup>3</sup>
<b>Germany</b>	DFG MAK: TWA: 2 mg/m <sup>3</sup> (inhalable fraction) 0,1 mg/m <sup>3</sup> (respirable fraction)
<b>Poland</b>	STEL: 10 mg/m <sup>3</sup> TWA: 4 mg/m <sup>3</sup>
<b>Poland</b>	STEL 10 mg/m <sup>3</sup>
<b>Slovakia</b>	TWA 2 mg/m <sup>3</sup> Inhalable fraction 0,1 mg/m <sup>3</sup> Respirable fraction
<b>Slovenia</b>	TWA: 5 mg/m <sup>3</sup> (inhalable fraction)
<b>Spain</b>	STEL 10 mg/m <sup>3</sup> Respirable fraction

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

**Biological Limit Values** None

**DNEL (Derived No Effect Level)** No data available

**PNEC (Predicted No Effect Concentration)** No data 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**

# Safety Data Sheet

**Kemgard® 620**

Issue Date 25/Jan/2024

Print Date 26/Jan/2024

Revision Number 1.3.4

Page 6 of 12

<b>Eye/Face Protection</b>	Wear safety glasses with side shields (or goggles).
<b>Skin and Body Protection</b>	Wear suitable protective clothing.
<b>Thermal hazards</b>	None known.
<b>Hygiene Measures</b>	Follow general hygiene considerations recognized as common good workplace practices
<b>Environmental Exposure Controls</b>	Dispose of in accordance with local regulations

## SECTION 9: Physical and chemical properties

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

#### Appearance:

<b>Physical State</b>	Solid Powder
<b>Color</b>	White to off-white
<b>Odor</b>	Odorless
<b>Odor Threshold</b>	No information available
<b>pH:</b>	8.4 (5% water suspension)
<b>Melting Point / Melting Range</b>	Not applicable
<b>Melting point / Freezing point</b>	Not applicable
<b>Boiling Point</b>	Not applicable
<b>Freezing Point</b>	Not applicable
<b>Flash Point</b>	Non-combustible
<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 Pressure</b>	Not applicable
<b>Vapor Density</b>	Not applicable
<b>Vapor Density</b>	Not applicable
<b>Density</b>	2.5 – 2.7 g/cm <sup>3</sup> , 20°C
<b>Relative Density</b>	2.6 g/cm <sup>3</sup> , 20° C
<b>Water Solubility</b>	11.7 mg/l , 25° C
<b>Solubility in other solvents</b>	No data available
<b>Partition coefficient</b>	Not applicable
<b>Autoignition Temperature</b>	Not applicable
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	Not applicable.
<b>Kinematic viscosity</b>	Not applicable
<b>Oxidizing Properties</b>	Not applicable
<b>Particle Size</b>	No information available
<b>VOC Content (%)</b>	Not applicable

### 9.2. Other information

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

# Safety Data Sheet

Kemgard® 620

Issue Date 25/Jan/2024

Print Date 26/Jan/2024

Revision Number 1.3.4

Page 7 of 12

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

#### 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

# Safety Data Sheet

**Kemgard® 620**

**Issue Date** 25/Jan/2024

**Print Date** 26/Jan/2024

**Revision Number** 1.3.4

**Page** 8 of 12

<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 data 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>	No data available.
<b>Specific target organ toxicity - Repeated exposure</b>	May cause damage to organs through prolonged or repeated exposure if inhaled. Kidney.
<b>Mixture versus substance information</b>	Mixture
<b>Information on Likely Routes of Exposure</b>	
<b>Inhalation</b>	Avoid inhalation of the product
<b>Ingestion</b>	Ingestion is not a likely route of exposure
<b>Skin</b>	Prolonged or repeated contact may dry skin and cause irritation
<b>Eyes</b>	Dust contact with the eyes can lead to mechanical irritation
<b>Aspiration hazard</b>	Not an expected route of exposure.

## 11.2. Information on other hazards

**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** No data available.

# Safety Data Sheet

Kemgard® 620

Issue Date 25/Jan/2024

Print Date 26/Jan/2024

Revision Number 1.3.4

Page 9 of 12

## degradability

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

## SECTION 14: Transport information

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

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

# Safety Data Sheet

Kemgard® 620

Issue Date 25/Jan/2024

Print Date 26/Jan/2024

Revision Number 1.3.4

Page 10 of 12

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 Oxide	22914-58-5 61583-60-6	245-322-4	N	Y: DSL-22914-58-5 NDSL: 61583-60-6	Y	(1)-781 (ENCS)(ISHL)	KE-11910	Y: (MO-generics)	Y	Y	Y	Y	A

### 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

# Safety Data Sheet

**Kemgard® 620**

Issue Date 25/Jan/2024

Print Date 26/Jan/2024

Revision Number 1.3.4

Page 11 of 12

## 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

<b>Reason for Revision</b>	This safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006 & COMMISSION REGULATION (EU) No. 2020/878
<b>Issue Date</b>	25/Jan/2024
<b>Print Date</b>	26/Jan/2024
<b>Revision Number</b>	1.3.4
<b>Prepared by</b>	Huber Engineered Materials Global Regulatory Affairs email: regulatory.affairs@huber.com.
<b>(CLP) Regulation (EC 1272/2008)</b>	This mixture is classified as hazardous according to regulation (EC) No. 1272/2008 [CLP]
<b>Labeling</b>	
<b>Symbols/Pictograms</b>	
<b>Signal Word</b>	Warning
<b>Hazard Statements</b>	H373 – May cause damage to organs (kidneys) through prolonged or repeated exposure. H412 - Harmful to aquatic life with long lasting effects.
<b>Training Advice</b>	Do not handle until all safety precautions have been read and understood.
<b>Abbreviations and acronyms</b>	<p>IARC (International Agency for Research on Cancer)          IUCLID (International Uniform Chemical Information Database)          WHMIS (Workplace Hazardous Materials Information System)          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)          CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)          RQ (Reportable Quantity) (RQ/% in mixture)          STEL (Short Term Exposure Limit)</p>

HUBER

# Safety Data Sheet

**Kemgard® 620**

**Issue Date** 25/Jan/2024

**Print Date** 26/Jan/2024

**Revision Number** 1.3.4

**Page 12 of 12**

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)  
IATA (International Air Transport Association)  
IMDG (International Maritime Dangerous Goods)  
DOT (Department of Transportation)  
TDG (Transport of Dangerous Goods) Canada  
PNEC (Predicted No Effect Concentration)  
SCBA (Self-Contained Breathing Apparatus) Positive Pressure  
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 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**