



**Kemgard® 620**

Prepared in accordance with GB/T 16483-2008, GB/T 24774-2009, GB 13690 – 2009, GB/T 17519–2013  
GHS (Globally Harmonized System)

Issue Date 25/Jan/2024

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Revision Number 1.3.4

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## Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Kemgard® 620
Chemical Name	--
Pure substance/mixture	Mixture
<u>Aluminum Hydroxide</u>	
CAS Number	21645-51-2
Weight-%	> 75
<u>Zinc Molybdenum Oxide</u>	
CAS Number	22914-58-5 61583-60-6
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
Emergency Telephone	CHEMTREC China: 4001-204937 (Mandarin) Local call: +86 532 5879 2008
E-mail	hubermaterials@huber.com
Internet	www.huberadvancedmaterials.com

## Section 2: HAZARDS IDENTIFICATION

### GHS Classification

Physical Hazard	Not classified
Health Hazard	Acute toxicity - Inhalation Category 5 Specific target organ toxicity (STOT) - repeated exposure, category 2
Environmental Hazard	Chronic Aquatic Toxicity, Category 3 Acute Aquatic Toxicity Category 2

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## Label Elements

### Symbols/Pictograms



### Signal Word

Warning

### Hazard Statement

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

## Precautionary Statements

### Prevention

Observe good industrial hygiene practices.  
Avoid breathing dust.  
Use mechanical ventilation (dilution and local exhaust) to control exposure  
Avoid release to the environment

### Response

Get medical help if you feel unwell  
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  
IF INHALED: Get medical help.

### Spills and Leaks

Collect spillage

### Storage

None

### Disposal

Dispose in accordance with local, state and national regulations

### General Advice

None

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## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance/mixture

Mixture

Chemical Name	CAS Number	China (IECSC)	China classification	TSCA: United States	EU REACH registration number	Weight-%
Aluminum Hydroxide	21645-51-2	Y	Not classified	A	01-2119529246-39	> 75
Zinc Molybdenum Oxide	22914-58-5 61583-60-6	Y	Acute Tox. 4, H332 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	A	01-2120800481-68 -0000	< 25

## Section 4: FIRST AID MEASURES

General Advice

None

Eye Contact

Hold eyelids apart and flush eyes with a steady, gentle stream of water for several minutes.

Skin Contact

IF ON SKIN: Wash with plenty of soap and water

Inhalation

If symptoms occur, remove person to fresh air.

Ingestion

Do not induce vomiting without medical advice

Notes to Physician

Treat symptomatically

Personal Protective Equipment  
For First Aid RespondersWear suitable protective clothing  
IF exposed or concerned: Get medical advice/attentionExpected acute symptoms and  
delayed symptoms

None known

## Section 5: FIRE FIGHTING MEASURES

Flammable Properties

None known

Suitable Extinguishing Media

All extinguishing media can be used. Use suitable media appropriate for the surrounding fire.

Unsuitable extinguishing media: None known

Specific Hazards Arising from  
the ChemicalAvoid dust formation. In the event of fire and/or explosion do not breathe fumes.  
The pressure in sealed containers can increase under the influence of heat. Use

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water spray to cool unopened containers.

**Unusual fire & explosion hazards:**

None

**Protective measures:**

Use protective equipment that is appropriate for surrounding materials.

**Protective Equipment and Precautions for Firefighters**

Wear self-contained breathing apparatus and protective suit

## Section 6: SPILLAGE, ACCIDENTAL RELEASE MEASURES

**Personal Precautions**

Ensure adequate ventilation

**Environmental Precautions**

Prevent from entering into soil, ditches, sewers and waterways.

**Methods for cleaning up**

Sweep or vacuum spilled material Transfer the material to appropriate containers for reclamation or disposal

**Other Information:**

None known

## Section 7: HANDLING AND STORAGE

**Handling**

Ensure adequate ventilation.

**Storage**

Keep containers closed

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure Limits**

Provide adequate ventilation as well as local exhaust at critical locations

**Aluminum Hydroxide****ACGIH**TLV/TWA 8-hr: 1 mg/m<sup>3</sup> (respirable fraction)**NIOSH**TWA: 5 mg/m<sup>3</sup> (respirable dust); 10 mg/m<sup>3</sup> TWA (total dust)**OSHA**TWA: 15 mg/m<sup>3</sup> (Total Dust)5 mg/m<sup>3</sup> (Respirable Dust)**Zinc Molybdenum Oxide****China**TWA: 8-hour: 4 mg/m<sup>3</sup>**China**

STEL: Not established

**ACGIH**TWA: 10 mg/m<sup>3</sup> dust0.5 mg/m<sup>3</sup> Respirable fraction**NIOSH**8-hr TWA: 10 mg/m<sup>3</sup>**OSHA**TWA: 5 mg/m<sup>3</sup> (respirable); 10 mg/m<sup>3</sup> (dust)PEL: 5 mg/m<sup>3</sup> (respirable)**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

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Wear safety glasses with side shields (or goggles)

**Skin and Body Protection**

Wear suitable protective clothing

**Hand Protection**

Protective gloves

**Respiratory Protection**

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

**Hygiene Measures**

Wash off with soap and water. Handle in accordance with good industrial hygiene and safety practice

**Environmental Exposure Controls**

Dispose of in accordance with local regulations

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**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

**Freezing Point**

Not applicable

**Boiling Point**

Not applicable

**Flash Point**

Non-combustible.

**Evaporation Rate**

Not applicable

**Flammability (solid, gas)**

Not applicable

**Upper flammability limit:****Lower flammability limit:****Vapor Pressure**

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.

**Section 10: STABILITY AND REACTIVITY**

<b>Stability</b>	Stable
<b>Conditions to avoid:</b>	Dust formation Incompatible materials
<b>Incompatible materials</b>	None known
<b>Hazardous decomposition products</b>	Thermal decomposition may include: Carbon dioxide Carbon monoxide Oxides of Metals in composition
<b>Hazardous Reactions</b>	None under normal processing
<b>Hazardous polymerization:</b>	None under normal processing

**Section 11: TOXICOLOGICAL INFORMATION**

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

<b>Eyes</b>	Dust contact with the eyes can lead to mechanical irritation
<b>Skin</b>	Prolonged or repeated contact may dry skin and cause irritation
<b>Inhalation</b>	Avoid inhalation of the product
<b>Ingestion</b>	Ingestion is not a likely route of exposure
<b>Aspiration hazard</b>	Not an expected route of exposure.

**11.1. Information on toxicological effects****Aluminum Hydroxide**

<b>Oral LD50</b>	> 2000 mg/kg Rat
<b>Inhalation LC50</b>	Rat > 2.3 mg/l (Al <sub>2</sub> O <sub>3</sub> ) Aerosol Maximum attainable concentration
<b>IARC</b>	Not Listed

**Zinc Molybdenum Oxide**

<b>Oral LD50</b>	>10000 mg/kg Rat
<b>IARC</b>	Not Listed
<b>Specific target organ toxicity - Repeated exposure</b>	Kidney (based on tubular degeneration/regeneration of male Han Wistar rats at 125 mg/kg/day). NOAEL – 60 mg/kg Rat; Oral; 90-day.

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<b>Acute Toxicity</b>	No data available
<b>Serious eye damage/eye irritation</b>	Dust may cause mechanical irritation to eyes
<b>Respiratory Sensitization</b>	Inhalation of dust in high concentration may cause irritation of respiratory system.
<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.

## Section 12: ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Harmful to aquatic life with long lasting effects. Avoid release to the environment.
<b>Persistence/Degradability:</b>	No data available.
<b>Bioaccumulative Potential</b>	This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
<b>Partition coefficient Bioconcentration factor (BCF)</b>	Not applicable No data available.
<b>Mobility in soil</b>	No data available.
<b>Results of PBT and vPvB assessment</b>	This substance does not meet the criteria for classification as PBT or vPvB.
<b>Other Adverse Effects</b>	None known

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## Section 13: DISPOSAL CONSIDERATIONS

**Waste from Residues/Unused Products** Dispose of in accordance with local regulations

**Contaminated Packaging:** Dispose of container and unused contents in accordance with federal, state and local requirements

## Section 14: TRANSPORT INFORMATION

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

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

## Section 15: REGULATORY INFORMATION



HUBER

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## 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
Aluminum Hydroxide	21645-51-2	244-492-7	01-2119529246-39	Y	Y	Y	(1)-17 (ENCS); ISHL	KE-00980	Y	Y	Y	Y	A
Zinc Molybdenum Oxide	22914-58-5 61583-60-6	245-322-4	01-2120800481-68-0000	N	Y	Y	(1)-781 (ENCS)(ISHL)	KE-11910	N	N	N	Y	A

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## Section 16: OTHER INFORMATION

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

**Reason for Revision** GB/T 16483-2008  
GB/T 24774-2009  
GB 13690 – 2009  
GB/T 17519–2013

### GHS Classification

**Physical Hazard** Not classified

**Health Hazard** Acute toxicity - Inhalation Category 5  
Specific target organ toxicity (STOT) - repeated exposure, category 2

**Environmental Hazard** Chronic Aquatic Toxicity, Category 3  
Acute Aquatic Toxicity Category 2

### Label Elements

#### Symbols/Pictograms



**Signal Word** Warning

**Hazard Statement** May be harmful if inhaled  
May cause damage to organs (kidney) through prolonged or repeated exposure  
Toxic to aquatic life  
Harmful to aquatic life with long lasting effects

### 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)

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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)  
SCBA (Self-Contained Breathing Apparatus) Positive Pressure  
GHS (Globally Harmonized System)  
ADR (European Agreement Concerning the International Carriage of Dangerous Goods by Road)  
RID (Agreement Concerning the International Carriage of Dangerous Goods by Rail)  
SARA (Superfund Amendments and Reauthorization Act of 1986)  
TSCA (Toxic Substances Control Act)

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**End of Safety Data Sheet**