



Kemgard® 605

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

Issue Date 01/Jan/2024

Print Date 12/Jan/2024

Revision Number 1.2.1

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

1.1. Product identifier

Product Name: Kemgard® 605

Pure substance/mixture Mixture

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Smoke suppressant

Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Manufacturer J.M. Huber Corporation
3100 Cumberland Boulevard, Suite 600
Atlanta, GA 30339 USA
Tel: +1 678 247-7300

Internet www.huberadvancedmaterials.com

Contact E-Mail 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)

Hazards identification

Physical Hazard Not classified

Health Hazards Not classified

Environmental Hazard Chronic Aquatic Toxicity, Category 3

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2.2. Label elements

Symbols/Pictograms	None
Signal Word	None
Hazard Statements	H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements

Prevention	P273 - Avoid release to the environment Employ good industrial hygiene practice Wash hands thoroughly after handling
Response	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

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.

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Skin Contact	Wash with plenty of soap and water.
Inhalation	Do not breathe dust. If breathing is difficult, remove victim 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 (CO₂).

Unsuitable Extinguishing Media

None known.

5.2. Special hazards arising from the substance or mixture

Non-combustible.

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,

Keep unauthorized personnel away. Avoid dust formation. Ensure adequate

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protective equipment and emergency procedures

ventilation. 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.

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

ACGIH
OSHA

TLV/TWA 8-hr: 1 mg/m³ (respirable fraction)
TWA: 15 mg/m³ (Total Dust)
5 mg/m³ (Respirable Dust)

NIOSH
France

TWA: 5 mg/m³ (respirable dust); 10 mg/m³ TWA (total dust)
Not established (Non établi)

France

Not established (Non établi)

Poland

2.5 mg/m³ (inhalable); 1.2 mg/m³ (respirable)

Switzerland

TWA: 3 mg/m³

United Kingdom

10 mg.m-3 (inhalable); 4 mg.m-3 (respirable)

Zinc Molybdenum Oxide

ACGIH

TWA: 10 mg/m³ dust

OSHA

0.5 mg/m³ Respirable fraction

TWA: 5 mg/m³ (respirable); 10 mg/m³ (dust)

NIOSH

PEL: 5 mg/m³ (respirable)

TWA 8-hr: 10 mg/m³

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Bulgaria	TWA: 10 mg/m ³
Czech Republic	Ceiling: 25 mg/m ³ TWA: 5 mg/m ³
Estonia	TWA: 5 mg/m ³ (respirable dust) 10 mg/m ³ (total dust)
Estonia	STEL: 0.5 mg/m ³
Finland	TWA: 0,5 mg/m ³
France	VLE: 10 mg/m ³ VME: 5 mg/m ³
Germany	DFG MAK: TWA: 2 mg/m ³ (inhalable fraction) 0,1 mg/m ³ (respirable fraction)
Poland	STEL: 10 mg/m ³ TWA: 4 mg/m ³
Poland	STEL 10 mg/m ³
Slovakia	TWA 2 mg/m ³ Inhalable fraction 0,1 mg/m ³ Respirable fraction
Slovenia	TWA: 5 mg/m ³ (inhalable fraction)
Spain	STEL 10 mg/m ³ 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

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:	--
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Vapor Density	Not applicable
Density	2.5 – 2.7 g/cm ³ , 20°C
Relative Density	2.6 g/cm ³ , 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

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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 (Al₂O₃) 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 -	No data available.

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Single exposure

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	Inhalation of dust may cause irritation of the respiratory system
Ingestion	Ingestion is not a likely route of exposure
Skin	Contact with dust can cause mechanical irritation or drying of the skin
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

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

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.

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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)

TDG -Canada	Not regulated
DOT	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 Not applicable

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user

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

X / Y: Complies ; A: Active ; - / N: Exempt / Not Listed

REACH No.

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

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

Reason for Revision

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

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HUBER

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Prepared by Huber Engineered Materials Global Regulatory Affairs
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(CLP) Regulation (EC 1272/2008)

Labeling

Symbols/Pictograms	None
Signal Word	None
Hazard Statements	H412 - Harmful 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)
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)
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