



Kemgard® 605

GHS (Globally Harmonized System)

Issue Date 01/Jan/2024

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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

Aluminum Hydroxide

CAS Number 21645-51-2

Weight-% > 75

Zinc Molybdenum Oxide

CAS Number 22914-58-5

61583-60-6

Weight-% < 25

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

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

Mixture versus substance information Mixture

GHS Classification Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

Hazards identification

Physical Hazard Not classified

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Health Hazards Not classified

Environmental Hazard Chronic Aquatic Toxicity Category 3

2.2. Label elements

Symbols/Pictograms

Signal Word None

Hazard Statements Harmful to aquatic life with long lasting effects

Precautionary Statements

Prevention Avoid release to the environment
Employ good industrial hygiene practice
Wash hands thoroughly after handling
Do not handle until all safety precautions have been read and understood
Take precautionary measures against static discharges

Response 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

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.

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-%
Aluminum Hydroxide	21645-51-2	A	244-492-7	01-211952 9246-39.	Not classified	> 75
Zinc Molybdenum Oxide	22914-58-5 61583-60-6	A	245-322-4	01-212080 0481-68-0 000.	Acute Tox. 4, H332 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	< 25

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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	Do not breathe dust. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
Aspiration hazard	Not an expected route of exposure.

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 Avoid dust formation. Do not breathe dust.

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

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6.1. Personal precautions, protective equipment and emergency procedures

Keep unauthorized personnel away. Avoid dust formation. Ensure adequate 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. 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

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)

Zinc Molybdenum Oxide

India
ACGIH

TWA: Not established
TWA: 10 mg/m³ dust
0.5 mg/m³ Respirable fraction

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OSHATWA: 5 mg/m³ (respirable); 10 mg/m³ (dust)
PEL: 5 mg/m³ (respirable)**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 information 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

Wear suitable gloves.

Respiratory Protection

In case of inadequate ventilation wear respiratory protection.

Thermal hazards

Wear suitable protective clothing.

Hygiene Measures

Follow general hygiene considerations recognized as common good workplace practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties**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

Boiling Point

Not applicable

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Freezing Point	Not applicable
Flash Point	Non-combustible
Evaporation Rate	Not applicable
Flammability (solid, gas)	Not applicable
Vapor Pressure	Not applicable
Vapor Density	Not applicable
Density	2.5 – 2.7 g/cm ³ , 20°C
Solubility in other solvents	No data available
Water Solubility	11.7 mg/l , 25° C
Partition coefficient	Not applicable
Autoignition Temperature	Not applicable
Viscosity	Not applicable
Oxidizing Properties	Not applicable
Decomposition Temperature	No data available

SECTION 10: Stability and reactivity

10.1. Reactivity	None
10.2. Chemical stability	Stable under normal conditions
10.3. Possibility of hazardous reactions	No specific hazard known
10.4. Conditions to avoid	Keep away from heat, sparks and flame.
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.
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Information on Likely Routes of Exposure

Inhalation	Inhalation of dust may cause irritation of the respiratory system
Skin	Contact with dust can cause mechanical irritation or drying of the skin
Eyes	Dust contact with the eyes can lead to mechanical irritation
Ingestion	Ingestion is not a likely route of exposure
Aspiration hazard	Not an expected route of exposure.

11.1. Information on toxicological effects

Aluminum Hydroxide

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

Zinc Molybdenum Oxide

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

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SECTION 12: Ecological information

12.1. Ecotoxicity Harmful to aquatic life with long lasting effects.

Aluminum Hydroxide - 21645-51-2

WGK Classification (AwSV) 5220 WGK: nwg

12.2. Persistence and degradability Readily biodegradable.

12.3. Bioaccumulative potential No data available.

Partition coefficient Not applicable.

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

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

Aluminum Hydroxide - 21645-51-2

European Waste Catalog 060299

SECTION 14: Transport information

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

DOT Not regulated

IATA Not regulated

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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	Not applicable

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
Aluminum Hydroxide	21645-51-2	244-492-7	01-211952924-6-39	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	01-212080048-1-68-0000	N	Y	Y	(1)-781 (ENCS)(ISHL)	KE-11910	N	N	N	Y	A

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

SECTION 16: Other information

Prepared by

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Reason for Revision

GHS (Globally Harmonized System).

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GHS Classification This product is not classified as hazardous according to the UN GHS guideline and labeling is not required

Labeling**Symbols/Pictograms****Signal Word** None**Hazard Statements** 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)
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 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