



Kemgard® 911B

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

Issue Date 08/Jan/2024

Print Date 10/Jan/2024

Revision Number 1.5.1

Page 1 of 14

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

1.1. Product identifier

Product Name: Kemgard® 911B

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

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

E-mail hubermaterials@huber.com

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 Acute toxicity - Inhalation Category 4

Safety Data Sheet

Kemgard® 911B**Issue Date** 08/Jan/2024**Print Date** 10/Jan/2024**Revision Number** 1.5.1**Page** 2 of 14

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

Environmental Hazard

Acute Aquatic Toxicity: Category 1

Chronic Aquatic Toxicity: Category 1

2.2. Label elements**Symbols/Pictograms****Signal Word**

Warning

Hazard Statements

H332 - Harmful if inhaled

H373 – May cause damage to organs (kidneys) through prolonged or repeated exposure

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements**Prevention**

P202 - Do not handle until all safety precautions have been read and understood

P260 - Do not breathe dust

P261 - Avoid breathing dust

P271 - Use only outdoors or in a well-ventilated area

P273 - Avoid release to the environment

Response

P312 - Call a POISON CENTER or doctor/physician if you feel unwell

P314 - Get medical advice/attention if you feel unwell

P391 - Collect spillage

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water [or shower]

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Storage

P402 - Store in a dry place

Disposal

P501 - Dispose of contents/containers in accordance with local regulations.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

Safety Data Sheet

Kemgard® 911B

Issue Date 08/Jan/2024

Print Date 10/Jan/2024

Revision Number 1.5.1

Page 3 of 14

3.2. Mixture

Mixture

Chemical Name	CAS Number	EC No	(CLP) Regulation (EC 1272/2008)	Weight-%
Zinc Oxide	1314-13-2	215-222-5	Aquatic Acute Category 1; H400. Aquatic Chronic Category 1; H410.	>25
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.

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

Based on available data, the classification criteria are not met.

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

Safety Data Sheet

Kemgard® 911B**Issue Date** 08/Jan/2024**Print Date** 10/Jan/2024**Revision Number** 1.5.1**Page** 4 of 14

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, 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,

Keep container tightly closed and dry

including any incompatibilities Store away from incompatible materials

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Zinc Oxide

ACGIH	STEL: 10 mg/m ³ (respirable) TWA: 2 mg/m ³ (respirable)
OSHA	PEL: 15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)
NIOSH	Ceiling: 15 mg/m ³ (total dust) STEL: 10 mg/m ³ (fume) TWA: 5 mg/m ³ (total dust)
Austria	MAK: 5 mg/m ³ (fume, respirable dust)
Belgium	STEL: 10 mg/m ³ (fume, respirable fraction) TWA: 5 mg/m ³ (fume); 2 mg/m ³ (respirable fraction)
Bulgaria	STEL: 10 mg/m ³ TWA: 5 mg/m ³
Cyprus	TWA: 5 mg/m ³ (fume)
Czech Republic	Ceiling: 5 mg/m ³ TWA: 2 mg/m ³
Denmark	TLV: 4 mg/m ³
Estonia	TWA: 5 mg/m ³
Finland	STEL: 10 mg/m ³ (fume) TWA: 2 mg/m ³ (fume)
France	VME: 5 mg/m ³ (fume); 10 mg/m ³ (dust)
Germany	DFG MAK: TWA: 1 mg/m ³ (respirable)
Greece	STEL: 10 mg/m ³ (fume) 5 mg/m ³ (fume)
Hungary	STEL: 20 mg/m ³ (respirable) TWA: 5 mg/m ³ (respirable)
Iceland	TWA: 4 mg/m ³ (fume)
Ireland	STEL: 10 mg/m ³ (respirable fraction & fume) TWA: 2 mg/m ³ (respirable fraction & fume)
Italy	STEL: 10 mg/m ³ (respirable fraction) TWA: 2 mg/m ³ (respirable fraction)
Latvia	TWA: 0.5 mg/m ³
Lithuania	TWA: 5 mg/m ³
Norway	TLV: 5 mg/m ³
Poland	STEL: 10 mg/m ³ (fume) TWA: 5 mg/m ³ (fume)
Portugal	TWA: 2 mg/m ³ (respirable fraction)
Portugal	STEL 10 mg/m ³ Respirable fraction
Romania	TWA: 5 mg/m ³ (fume)
Romania	STEL 10 mg/m ³ Fume
Slovakia	STEL: 1 mg/m ³ (respirable fume) TWA: 1 mg/m ³ (respirable fume)
Slovenia	TWA: 5 mg/m ³ (respirable fume)
Spain	STEL: 10 mg/m ³ (respirable fraction) TWA: 2 mg/m ³ (respirable fraction)
Sweden	TWA: 5 mg/m ³ (total dust)
Switzerland	STEL: 3 mg/m ³ (fume & respirable dust)

Safety Data Sheet

Kemgard® 911B**Issue Date** 08/Jan/2024**Print Date** 10/Jan/2024**Revision Number** 1.5.1**Page** 6 of 14**Switzerland**TWA 3 mg/m³ (fume & respirable dust)
STEL 3 mg/m³ Fume and respirable dust**Zinc Molybdenum Oxide****ACGIH**TWA: 10 mg/m³ dust0.5 mg/m³ Respirable fraction**OSHA**TWA: 5 mg/m³ (respirable); 10 mg/m³ (dust)PEL: 5 mg/m³ (respirable)**NIOSH**8-hr TWA: 10 mg/m³**Bulgaria**TWA: 10 mg/m³**Czech Republic**Ceiling: 25mg/m³TWA: 5 mg/m³**Estonia**TWA: 5 mg/m³ (respirable dust)10 mg/m³ (total dust)**Estonia**STEL: 0.5 mg/m³**Finland**TWA: 0,5 mg/m³**France**VLE: 10 mg/m³VME: 5 mg/m³**Germany**DFG MAK: TWA: 2 mg/m³ (inhalable fraction)0,1 mg/m³ (respirable fraction)**Poland**STEL: 10 mg/m³TWA: 4 mg/m³**Poland**STEL 10 mg/m³**Slovakia**TWA 2 mg/m³ Inhalable fraction0,1 mg/m³ Respirable fraction**Slovenia**TWA: 5 mg/m³ (inhalable fraction)**Spain**STEL 10 mg/m³ Respirable fraction**Recommended monitoring procedures**

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

Biological Limit Values

No information available

DNEL (Derived No Effect Level) No data 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.

Safety Data Sheet

Kemgard® 911B**Issue Date** 08/Jan/2024**Print Date** 10/Jan/2024**Revision Number** 1.5.1**Page** 7 of 14

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 Do not empty into drains or water courses

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance:

Physical State	Solid Powder
Color	White
Odor	Odorless
Odor Threshold	No information available
pH:	6.5 5% Water suspension
Melting Point / Melting Range	No information available
Melting point / Freezing point	Not applicable
Initial boiling point	No information available
Boiling Point	No information available
Freezing Point	No information available
Flash Point	Not applicable Product/Substance is inorganic
Evaporation Rate	Not applicable.
Flammability (solid, gas)	Not applicable
Flammability (solid, gas)	Non-combustible
Upper flammability limit:	Not applicable
Lower flammability limit:	Not applicable
Vapor Pressure	No data available
Vapor Density	Not applicable
Vapor Density	No data available
Density	No data available
Relative Density	5.1
Water Solubility	Slightly soluble
Solubility in other solvents	No information available
Partition coefficient	No data available
Autoignition Temperature	No data available
Decomposition Temperature	No information available
Viscosity	No information available.
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

Safety Data Sheet

Kemgard® 911B

Issue Date 08/Jan/2024

Print Date 10/Jan/2024

Revision Number 1.5.1

Page 8 of 14

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	None under normal processing
10.4. Conditions to avoid	Dust formation Incompatible materials
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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11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Zinc Oxide

LD50s and LC50s 5000 mg/kg Oral LD50 Rat

Oral LD50 7950 mg/kg Rat

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	Low hazard for usual industrial or commercial handling
Respiratory Sensitization	Does not cause sensitization
Serious eye damage/eye irritation	Dust may cause mechanical irritation to eyes
Skin Corrosion/Irritation	Contact with dust can cause mechanical irritation or drying of the skin
Skin Sensitization	Not a skin sensitizer

Safety Data Sheet

Kemgard® 911B**Issue Date** 08/Jan/2024**Print Date** 10/Jan/2024**Revision Number** 1.5.1**Page** 9 of 14

Germ cell 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.

Information on Likely Routes of Exposure

Inhalation	May cause respiratory tract irritation
Ingestion	Ingestion is not a likely route of exposure
Skin	No known hazard in contact with skin
Eyes	Dust contact with the eyes can lead to mechanical irritation
Aspiration hazard	Not an expected route of exposure.
Symptoms related to the physical, chemical and toxicological characteristics	Dust may cause mechanical irritation to eyes.

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	Very toxic to aquatic life with long lasting effects
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Zinc Oxide**WGK Classification (AwSV)** 2187 WGK: 2

12.2. Persistence and degradability	No data available.
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Safety Data Sheet

Kemgard® 911B**Issue Date** 08/Jan/2024**Print Date** 10/Jan/2024**Revision Number** 1.5.1**Page 10 of 14****12.3. Bioaccumulative potential** No data available.**Partition coefficient** No data available**Bioconcentration factor (BCF)** No data 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. 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 Dispose of waste product or used containers according to local regulations. Do not allow to enter into surface water or drains.**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

Zinc Oxide

WGK Classification (AwSV) 2187 WGK: 2

SECTION 14: Transport information

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

TDG -Canada	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Oxide, Zinc Molybdate)
DOT	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Oxide, Zinc Molybdate), , Not regulated in non-bulk packages (<119 gal)
ADR	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Oxide, Zinc Molybdate)
ADN	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Oxide, Zinc Molybdate)
IATA	UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Oxide, Zinc Molybdate)

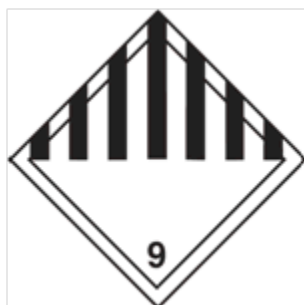
Safety Data Sheet

Kemgard® 911B**Issue Date** 08/Jan/2024**Print Date** 10/Jan/2024**Revision Number** 1.5.1**Page 11 of 14****IMDG/IMO**

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Oxide, Zinc Molybdate)

ICAO

UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Oxide, Zinc Molybdate)

14.1. UN number UN3077**14.2. UN proper shipping name** UN3077, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc Oxide, Zinc Molybdate)**14.3. Transport hazard class(es)** 9**Subsidiary Risk** -**14.4. Packing group** III**14.5. Environmental hazards** Marine Pollutant**EmS:** F-A, S-F**14.6. Special precautions for user** Do not handle until all safety precautions have been read and understood.**14.7. Maritime transport in bulk according to IMO instruments****Marine Pollutant**

Safety Data Sheet

Kemgard® 911B

Issue Date 08/Jan/2024

Print Date 10/Jan/2024

Revision Number 1.5.1

Page 12 of 14

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
Zinc Oxide	1314-13-2	215-222-5	Y	Y	Y	ENCS: (1)-561 ISHL: (1)-561	KE-35565	Y	55-1-01377	Y	Y	Y	A
Zinc Molybdenum Oxide	22914-58-5 61583-60-6	245-322-4	N	Y	Y	(1)-781 (ENCS)(ISHL)	KE-11910	N	Y	N	N	Y	A

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

REACH No.

Zinc Oxide

EU REACH registration number 01-2119463881-32

Turkish KKDIK pre-registration 05-0000192715-32-0000

Zinc Molybdenum Oxide

EU REACH registration number 01-2120800481-68-0000

Turkish KKDIK pre-registration 05-0000192714-03-0000

Germany

Very toxic to aquatic life with long lasting effects

Zinc Oxide

WGK Classification (AwSV) 2187 WGK: 2

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were carried out

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

Issue Date

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1.5.1

Prepared by

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

HUBER

Safety Data Sheet

Kemgard® 911B

Issue Date 08/Jan/2024

Print Date 10/Jan/2024

Revision Number 1.5.1

Page 13 of 14

[CLP]

Labeling

Symbols/Pictograms



Signal Word

Warning

Hazard Statements

H332 - Harmful if inhaled. H373 – May cause damage to organs (kidneys) through prolonged or repeated exposure. H400 - Very toxic to aquatic life. H410 - Very toxic to aquatic life with long lasting effects.



Marine Pollutant

Safety Data Sheet

Kemgard® 911B**Issue Date** 08/Jan/2024**Print Date** 10/Jan/2024**Revision Number** 1.5.1**Page 14 of 14****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