According to regulation (EC) No. 1907/2006 (REACH)

KREMER

63710 Klucel® M

Page 1

Revised edition: 11.08.2017 Version: 1.4 Printed: 30.05.2018

1. Identification of the Substance/Mixture and of the Company/Undertaking

1. 1. Product Identifier

Product Name: Klucel® M

Article No.: 63710

1. 2. Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses:

Rheological modifier Pharmaceuticals

Uses advised against:

1. 3. Details of the Supplier of the Safety Data Sheet (Producer/Importer)

Company: Kremer Pigmente GmbH & Co. KG

Address: Hauptstr. 41-47, 88317 Aichstetten, Germany

Tel./Fax.: Tel +49 7565 914480, Fax +49 7565 1606

Internet: www.kremer-pigmente.de

EMail: info@kremer-pigmente.de

Importer: --

1. 4. Emergency No.

Emergency No.: +49 7565 914480 (Mon-Fri 8:00 - 17:00)

2. Hazards Identification

2. 1. Classification of the Substance or Mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

This product does not require classification and labelling as

hazardous according to CLP/GHS.

Classification according to Directive No.

67/548/EC or No. 1999/45/EC

The material is not subject to classification according to EC lists.

Safety Phrases:

Possible Environmental Effects:

2. 2. Label Elements

Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)

No classification required according to the CLP/GHS guidelines.

Hazard designation:

Not applicable.

Signal word:

Hazard designation:

Safety designation:

Hazardous components for labelling:

Other Hazards

According to regulation (EC) No. 1907/2006 (REACH)

KREMER

63710 Klucel® M

Page 2

Revised edition: 11.08.2017 Version: 1.4 Printed: 30.05.2018

2. 3.

3. Composition/Information on Ingredients

3. 1. Substance

3. 2. Mixture

Chemical Characterization: Hydroxypropyl cellulose, CAS No. 9004-64-2, EINECS 618-388-0

Information on Components / Hazardous

Ingredients:

Additional information:

4. First Aid Measures

4. 1. Description of the First Aid Measures

General information:

No special measures required.

After inhalation:

Supply fresh air. Consult physician if symptoms persist.

After skin contact:

Wash off immediately with soap and plenty of water and rinse

thoroughly.

If irritation continues consult a physician.

After eye contact:

Rinse open eye for several minutes under running water. Should

irritation continue, seek medical advice.

After ingestion:

Rinse mouth with water and drink plenty of water.

If symptoms persist consult physician.

4. 2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms:

No further information available.

Effects.

4. 3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment:

No special first-aid measures necessary.

5. Fire-Fighting Measures

5. 1. Extinguishing Media

Suitable extinguishing media:

Use extinguishing media for surrounding fire.

Foam, water jet.

Unsuitable extinguishing media:

5. 2. Special Hazards arising from the Substance or Mixture

Special hazards:

Dust can form explosive mixtures with air.

In case of fire: formation of carbon monoxide and dioxide.

next page:

According to regulation (EC) No. 1907/2006 (REACH)

KREMER

63710 Klucel® M

Page 3

Revised edition: 11.08.2017 Version: 1.4 Printed: 30.05.2018

5. 3. Advice for Firefighters

Protective equipment:

Wear self-contained respiratory protective device.

Further information:

Avoid contamination of sewage system, open water ways and

ground water.

6. Accidential Release Measures

6. 1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:

Wear protective clothing.

Together with water product causes slippery surfaces.

Do not inhale dust.

Keep unprotected persons out of danger zone.

6. 2. Environmental Precautions

Environmental precautions:

Prevent contamination of soil, drains and surface waters.

6. 3. Methods and Material for Containment and Cleaning Up

Methods and material:

Take up mechanically and collect in suitable containers for

disposal.

Avoid dust formation.

6. 4. Reference to other Sections

Protective clothing, see Section 8.

See Section 13 for information on disposal.

7. Handling and Storage

7. 1. Precautions for Safe Handling

Instructions on safe handling:

Provide adequate ventilation.

Avoid formation and deposition of dust. Provide adequate

ventilation.

Hygienic measures:

Do not eat or drink during work. Do not smoke.

Do not inhale dust. Wash hands before breaks and at the end of

work.

7. 2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:

Store in tightly sealed containers in a dry and cool room.

Requirements for storage areas and

containers:

Information on fire and explosion

protection:

Dust may form an explosive mixture with air.

Keep away from sources of ignition - do not smoke. Take

next page:

According to regulation (EC) No. 1907/2006 (REACH)

KREMER

63710 Klucel® M

Page 4

Revised edition: 11.08.2017 Version: 1.4 Printed: 30.05.2018

measures to prevent electrostatic discharge.

Take measures to prevent static electricity discharge, earth/ground

all equipment.

Ground and bond containers when transferring material. Dust explosion class 1 (Kst-value > 0 - 200 bar m/s).

Storage class (VCI):

11; Combustible solids

Further Information:

7. 3. Specific End Use(s)

Further information:

8. Exposure Controls/Personal Protection

8. 1. Parameters to be Controlled

Parameters to be controlled (DE):

Does not contain any components with workplace limit values.

Parameters to be controlled:

Derived No-Effect Level (DNEL):

Predicted No-Effect Concentration

(PNEC):

Additional Information:

8. 2. Exposure Controls

Technical protective measures:

Provide adequate ventilation in case of dust formation.

Personal Protection

General protective measures:

Keep away from foodstuffs and drinks. Do not eat, drink or smoke

during work. Wash hands before breaks and at the end of work.

Respiratory protection:

None required under normal operating conditions.

Hand protection:

Protective gloves

Protective glove material:

Protective gloves made of butyl rubber.

Eye protection:

Tightly fitting safety goggles (EN 166).

Body protection:

9.

Protective clothing.

Environmental precautions:

Physical and Chemical Properties

9. 1. Information on Basic Physical and Chemical Properties

Form: granules

According to regulation (EC) No. 1907/2006 (REACH)

63710 Klucel® M



Page 5

Revised edition: 11.08.2017 Version: 1.4 Printed: 30.05.2018

Color: whitish

Odor: odorless

Odor threshold:

No information available.

pH-Value: 5 - 8.5 (2 %)

Melting temperature: 100 - 150°C

Boiling temperature:

not determined

Flash point:

not applicable

Evaporation rate:

No information available.

Flammability (solid, gas):

not flammable

Upper explosion limit:

no information available

Lower explosion limit: 30 g/m3

Vapor pressure:

not applicable

Vapor density:

Density: > 1 g/cm3

Solubility in water: insoluble > 45°C

Coefficient of variation (n-

Octanol/Water):

no information available

Auto-ignition temperature: 420°C

Decomposition temperature:

No data available.

Viscosity, dynamic:

not available

Explosive properties:

Dust can form explosive mixtures with air.

Oxidizing properties:

No information available.

Bulk density: 360 - 550 kg/m3

9. 2. Further Information

Solubility in solvents:

Viscosity, kinematic

Burning class:

According to regulation (EC) No. 1907/2006 (REACH)



63710 Klucel® M

Page 6

Revised edition: 11.08.2017 Version: 1.4 Printed: 30.05.2018

Solvent content:

Solid content:

Particle size:

Other information:

Dust explosion value (Kst): < 200 m.b_/s

Dust explosion class: ST1
Minimal ignition energy: > 3 mJ

10. Stability and Reactivity

10.1. Reactivity

No decomposition if used according to specifications.

10.2. Chemical Stability

Stable if used according to specifications.

10.3. Possibility of Hazardous Reactions

Dust can form explosive mixtures with air.

10.4. Conditions to Avoid

Conditions to avoid:

Avoid heat, sparks, open fire and other ignition sources.

Thermal decomposition:

10.5. Imcompatible Materials

None known.

10.6. Hazardous Decomposition Products

None known.

10.7. Further Information

11. Toxicological Information

11. 1. Information on Toxicological Effects

Acute Toxicity

LD50, oral:

No information available.

LD50, dermal:

LC50, inhalation:

Primary effects

Irritant effect on skin:

Dust may cause irritation.

Irritant effect on eyes:

Product dust may cause irritation.

Inhalation:

Dust can cause irritation of the respiratory system.

Ingestion:

Sensitization:

No sensitizing effects known.

According to regulation (EC) No. 1907/2006 (REACH)



63710 Klucel® M

Page 7

Revised edition: 11.08.2017 Version: 1.4 Printed: 30.05.2018

Mutagenicity:

No mutagenic effects known.

Reproductive toxicity:

No negative effects known.

Carcinogenicity:

No negative effects.

Teratogenicity:

No information available.

Specific target organ toxicity (STOT):

No negative effects.

Additional toxicological information:

12. Ecological Information

12. 1. Aquatic Toxicity

No information available.

Fish toxicity:

Daphnia toxicity:

Bacteria toxicity:

Algae toxicity:

12. 2. Persistency and Degradability

Not readily biodegradable.

12. 3. Bioaccumulation

No information available.

12. 4. Mobility

No information available.

12. 5. Results of PBT- und vPvP Assessment

Not applicable.

12. 6. Other Adverse Effects

Water hazard class:

1, slightly hazardous

Behaviour in sewage systems:

Further ecological effects:

AOX Value:

13. Disposal Considerations

13. 1. Waste Treatment Methods

Product:

Reuse, when possible.

European Waste Code (EWC):

Uncleaned packaging:

Empty container completely.

Uncontaminated packaging may be recycled.

According to regulation (EC) No. 1907/2006 (REACH)



63710 Klucel® M

Page 8

Revised edition: 11.08.2017 Version: 1.4 Printed: 30.05.2018

Revise	d edition: 11.08.2017	Version: 1.4	Printed: 30.05.2018	
	Waste Code No.:			
14.	Transport Information			
14. 1.	UN Number			
	ADR, IMDG, IATA			
14. 2.	UN Proper Shipping Name			
	ADR/RID:			
		No hazardous goods according to ADR (land transportation).		
	IMDG/IATA:	No hazardous goods according to IMDG.		
14. 3.	Transport Hazard Classes	ivo nazardous goods according	TO IMDG.	
14. 3.				
	ADR Class:	not applicable		
	Hazard no.:	,,		
	Classification code:			
	Tunnel restriction code:			
	IMDG Class (sea):			
	Hazard no.:			
	EmS No.:			
	IATA Class:			
		not applicable		
	Hazard no.:			
14. 4.	Packaging Group			
	ADR/RID:			
		not applicable		
	IMDG:			
	IATA:			
14. 5.	Environmental Hazards	None		
14. 6.	Special Precautions for User	None		
•.		Not classified as a dangerous g	good under transport regulations.	
14. 7.	Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code			
		not applicable		
14. 8.	Further Information			
15.	Regulatory Information			

15. Regulatory Information

15. 1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class:

1, slightly hazardous for water (German Regulation)

Local regulations on chemical accidents:

According to regulation (EC) No. 1907/2006 (REACH)

63710 Klucel® M



Page 9

Revised edition: 11.08.2017 Version: 1.4 Printed: 30.05.2018

Employment restrictions:

Restriction and prohibition of application:

EC. REACH, Section XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances,

Preparations and Articles: not applicable

Technical instructions on air quality:

Not applicable.

15. 2. Chemical Safety Assessment

Exempted from the mandatory REACH Registration since this

product is a polymer.

15. 3. Further Information

Listed in the following inventories:

EINECS (EU), TSCA (US), AICS (AUS), DSL (CA), PICCS (PH),

ENCS/ISHL (JP), KECI (KR), IECSC (CN), NZIOC (NZ)

EC. REACH, Annex XIV, Candidate List of Substances of very

High Concern (SVHC): not regulated / not applicable

Regulation (EC) 850/2004 - Persistent organic pollutants and amending Directive 79/117/EEC: not regulated / not applicable Regulation (EC) 1005/2009 - Substances that Deplete the Ozone

Layer: not regulated / not applicable

16. Other Information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.