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

KREMER

63712 Klucel® H

Page 1

Revised edition: 16.04.2021 Version: 1.6 Printed: 04.01.2022

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

1. 1. Product Identifier

Product Name: Klucel® H

Article No.: 63712

UFI: -

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

Identified uses:

Pharmaceuticals
As thickener

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.com

EMail: info@kremer-pigmente.com

Importer: --

1. 4. Emergency No.

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

1. 4. 2 Poison Center:

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.

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:

Dust/air mixtures must be kept away from ignition sources.

Hazardous components for labelling:

2. 3. Other Hazards

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

KREMER

63712 Klucel® H

Page 2

Revised edition: 16.04.2021 Version: 1.6 Printed: 04.01.2022

3.

3. 1. Substance

3. 2. Mixture

Chemical Characterization: Hydroxypropyl cellulose, EINECS 618-388-0

Information on Components / Hazardous

Ingredients:

Additional information:

Exempted from the mandatory REACH Registration.

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 symptoms persist, 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

63712 Klucel® H

Page 3

Revised edition: 16.04.2021 Version: 1.6 Printed: 04.01.2022

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.

Avoid inhalation of 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:

63712

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

Klucel® H

PI

PIGMENTE

Page 4

Revised edition: 16.04.2021 Version: 1.6 Printed: 04.01.2022

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:

11; Combustible solids (TRGS 510)

Further Information:

7. 3. Specific End Use(s)

Further information:

No information available.

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:

Butyl rubber (> 480 min; 0.5 mm).

Eye protection:

Tightly fitting safety goggles (EN 166).

Body protection:

Protective clothing.

Environmental precautions:

9. Physical and Chemical Properties

9. 1. Information on Basic Physical and Chemical Properties

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

63712 Klucel® H

Revised edition: 16.04.2021



Page 5

Printed: 04.01.2022

Form: granules

Color: whitish

Odor: odorless

Odor threshold:

no information available

Version: 1.6

pH-Value: 5 - 8.5 (2% aqueous solution)

Melting temperature: 100 - 150°C

Boiling temperature:

not determined

Flash point:

not applicable

Evaporation rate:

No information available.

Flammability (solid, gas):

Combustible dust

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: 500 kg/m3

9. 2. Further Information

Solubility in solvents:

Viscosity, kinematic:

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



Klucel® H 63712

Revised edition: 16.04.2021 Version: 1.6 Printed: 04.01.202 Burning class: 5 (26°C) Solvent content: Solid content: Particle size: Other information: Dust deflagration index (Kst): < 200 m.b_/s Minimal ignition energy: > 3 mJ Dust explosion class: ST1 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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 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 eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion: next page:	Davis	d - divisor 40 04 0004	Vansiana 4.0	Page	04.04.0	6
Solvent content: Solid content: Particle size: Other information: Dust deflagration index (Kst): < 200 m.b_/s Minimal ignition energy: > 3 mJ Dust explosion class: ST1 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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:	Revise			Printed:	04.01.2	.022
Solid content: Particle size: Other information: Dust deflagration index (Kst): < 200 m.b_/s Minimal ignition energy: > 3 mJ Dust explosion class: ST1 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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. 1. Information on Toxicological Effects Acute Toxicity LD50, dermal: LC50, inhalation: Primary effects Imitant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:		-	0 (20 0)			
Particle size: Other information: Dust deflagration index (Kst): < 200 m.b_/s Minimal ignition energy: > 3 m./ Dust explosion class: ST1 10. Stability and Reactivity 10.1. Reactivity No decomposition if used according to specifications. 10.2. Chemical Stability Stable if used according to specifications. 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. Incompatible Materials Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:						
Other Information: Dust deflagration index (Kst): < 200 m.b_/s Minimal Ignition energy: > 3 mJ Dust explosion class: ST1 10. Stability and Reactivity 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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:						
Dust deflagration index (Kst): < 200 m.b_/s Minimal ignition energy: > 3 mJ Dust explosion class: ST1 10. Stability and Reactivity 10.1. Reactivity No decomposition if used according to specifications. 10.2. Chemical Stability Stable if used according to specifications. 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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:						
Minimal ignition energy: > 3 mJ Dust explosion class: ST1 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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LC50, inhalation: Primary effects Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:		Other information.	Dust deflagration index (Kst): < 200 m.k) /s		
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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:			Minimal ignition energy: > 3 mJ	_		
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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:			Dust explosion class: ST1			
No decomposition if used according to specifications. 10.2. Chemical Stability Stable if used according to specifications. 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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:						
10.2. Chemical Stability 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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. 1 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: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:	10.2. 10.3. 10.4.	Reactivity	No decomposition if used according to	snecifications		
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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause Irritation of the respiratory system.		Chemical Stability	No decomposition if used according to s	эрестсанота.		
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 Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 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: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system.		Chairing Chairing	Stable if used according to specification	ıs.		
10.4. Conditions to Avoid Conditions to avoid: Avoid heat, sparks, open fire and other ignition sources. Thermal decomposition: 10.5. Imcompatible Materials Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 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: Non irritating Dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:		Possibility of Hazardous Reactions				
Conditions to avoid: Avoid heat, sparks, open fire and other ignition sources. Thermal decomposition: 10.5. Imcompatible Materials Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:			Dust can form explosive mixtures with a	air.		
Avoid heat, sparks, open fire and other ignition sources. Thermal decomposition: 10.5. Imcompatible Materials Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:						
Thermal decomposition: 10.5. Imcompatible Materials Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system.		Conditions to avoid:	Avoid boot analys and fire and other	ionition course		
10.5. Imcompatible Materials Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 10.7. Further Information 11. Toxicological Information 11. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:		The word decourage it is a	Avoid rieat, sparks, open lire and other	igrillion source	7 8.	
Strong bases 10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 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: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:						
10.6. Hazardous Decomposition Products Carbon monoxide and dioxide. 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: Non irritating Dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:		ппсотрацые мателаіз	Strong bases			
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: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:	10.6.	Hazardous Decomposition Products	·			
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: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:			Carbon monoxide and dioxide.			
11. 1. Information on Toxicological Effects Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:	10.7.					
Acute Toxicity LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:						
LD50, oral: No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:	11. 1.	Information on Toxicological Effects				
No information available. LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:		Acute Toxicity				
LD50, dermal: LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:		LD50, oral:	No. 1-Farmer Care and Makela			
LC50, inhalation: Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:			No information available.			
Primary effects Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:						
Irritant effect on skin: Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:						
Non irritating Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:		Primary effects				
Dust may cause irritation. Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:		Irritant effect on skin:	Nan initation			
Irritant effect on eyes: Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:			-			
Product dust may cause irritation. Inhalation: Dust can cause irritation of the respiratory system. Ingestion:		Irritant effect on eves:				
Dust can cause irritation of the respiratory system. Ingestion:			Product dust may cause irritation.			
Ingestion:		Inhalation:				
Ingestion:			Dust can cause irritation of the respirate	ory system.		
		Ingestion:		ne'	xt nage:	7

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



63712 Klucel® H

Page 7

Revised edition: 16.04.2021 Version: 1.6 Printed: 04.01.2022

No information available

Sensitization:

No sensitizing effects known.

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

On the basis of available data, the product does not contain any

PBT or vPvB substances in percentage greater than 0.1 %.

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:

Dispose of according to official national and local regulations. next page:

8

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

KREMER

63712 Klucel® H

Page 8

Revised edition: 16.04.2021 Version: 1.6 Printed: 04.01.2022

European Waste Code (EWC):

Uncleaned packaging:

Non-contaminated packaging may be recycled.

Contaminated packaging must be disposed like the substance.

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 / DOT (US) (land

transportation).

IMDG/IATA:

Not hazardous goods

14. 3. Transport Hazard Classes

ADR Class:

not applicable

Hazard no.:

Classification code:

Tunnel restriction code:

IMDG Class (sea):

not applicable

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

Not classified as a dangerous 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

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

63712 Klucel® H



Page 9

Revised edition: 16.04.2021 Version: 1.6 Printed: 04.01.2022

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:

Seveso III Directive: not applicable under Directive 2012/18/EC.

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), TSCI

(IW)

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

Regulation (EC) 649/2012 concerning the export and import of

dangerous chemicals: 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.