

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name : Klüberpaste UH1 84-201
Article-No. : 005113

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

Use of the Substance/Mixture : Lubricant

1.3 Details of the supplier of the safety data sheet

KLÜBER LUBRICATION MÜNCHEN
Geisenhausenerstrasse 7
D-81379 München
Deutschland
Tel: +49 (0) 897876-0
Fax: +49 (0) 897876-333

E-mail address : mcm@klueber.com
Responsible/issuing person : Material Compliance Management

National contact : Klüber Lubrication Great Britain Ltd.
Unit 10 Pennine Business Park
Longbow Close
Huddersfield, HD2 1GQ
Great Britain
Tel: +44-1422-205115
Fax: +44-1422-206073
sales@uk.klueber.com

1.4 Emergency telephone number

0049 (0) 897876-700 (24hrs)

2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Chronic aquatic toxicity, Category 3 H412: Harmful to aquatic life with long lasting effects.

Classification (67/548/EEC, 1999/45/EC)

Dangerous for the environment R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**
P273 Avoid release to the environment.

2.3 Other hazards

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature : Synthetic hydrocarbon oil
PTFE
solid lubricant

Hazardous components

Chemical Name	CAS-No. EC-No. Index-No. Registration number	Classification (67/548/EEC)	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
sodium benzoate	532-32-1 208-534-8	Xi; R36	Eye Irrit. 2; H319	>= 3 - < 10
Amines, C11-14- branched alkyl, monohexyl and dihexyl phosphates	80939-62-4 279-632-6	Xi; R36/38 N; R51/53	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411	>= 0.25 - < 1
(Z)-N-methyl-N-(1-oxo- 9-octadecenyl)glycine	110-25-8 203-749-3	Xn; R20 Xi; R38-R41 N; R50	Acute Tox. 4; H332 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Acute 1; H400	>= 0.25 - < 1
2-(2-heptadec-8-enyl-2- imidazolin-1-yl)ethanol	95-38-5 202-414-9	Xn; R22-R48/22 C; R34 N; R50/53	Acute Tox. 4; H302 Skin Corr. 1C; H314 Eye Dam. 1; H318 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0.25 - < 1
Substances with a workplace exposure limit :				
magnesium oxide	1309-48-4 215-171-9			>= 10 - < 20

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

4. First aid measures

4.1 Description of first aid measures

- If inhaled : Remove person to fresh air. If signs/symptoms continue, get medical attention.
Keep patient warm and at rest.
If unconscious place in recovery position and seek medical advice.
Keep respiratory tract clear.
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.
In case of contact, immediately flush skin with plenty of water.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
- In case of eye contact : If eye irritation persists, consult a specialist.
Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
- If swallowed : If unconscious place in recovery position and seek medical advice.
Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
Get medical attention if symptoms occur.
- : Move the victim to fresh air.
- : Rinse mouth with water.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.
- Risks : None known.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No information available.

5. Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- Unsuitable extinguishing media : none

5.2 Special hazards arising from the substance or mixture

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

Specific hazards during firefighting : Fire may cause evolution of:
Carbon oxides
Halogenated compounds
Metal oxides
Oxides of phosphorus

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. In the case of respirable dust and/or fumes, use self-contained breathing apparatus. Exposure to decomposition products may be a hazard to health.

Further information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions : Do not allow contact with soil, surface or ground water. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Wash hands and face before breaks and immediately after handling the product.

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

Do not ingest.
Do not repack.
Do not re-use empty containers.
These safety instructions also apply to empty packaging which may still contain product residues.
Keep container closed when not in use.
Avoid inhalation of vapour or mist.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in original container.
Keep container closed when not in use.
Keep in a dry, cool and well-ventilated place.
To maintain product quality, do not store in heat or direct sunlight.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Store in accordance with the particular national regulations.
Keep in properly labelled containers.

7.3 Specific end use(s)

: Consult the technical guidelines for the use of this substance/mixture.

8. Exposure controls/personal protection

8.1 Control parameters

Components	CAS-No.	Value type	Control parameters	Update	Basis
magnesium oxide	1309-48-4	TWA	10 mg/m ³	2011-12-01	GB EH40
Further information:	15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m ⁻³ 8-hour TWA of inhalable dust or 4 mg.m ⁻³ 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used Magnesium				
magnesium oxide	1309-48-4	TWA	4 mg/m ³	2011-12-01	GB EH40
Further information:	15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind				

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - GB



Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

	<p>when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used Magnesium</p>				
magnesium oxide	1309-48-4	TWA	4 mg/m3	2011-12-01	GB EH40
Further information:	<p>15: For the purposes of these limits, respirable dust and inhalable dust are those fractions of airborne dust which will be collected when sampling is undertaken in accordance with the methods described in MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust The COSHH definition of a substance hazardous to health includes dust of any kind when present at a concentration in air equal to or greater than 10 mg.m-3 8-hour TWA of inhalable dust or 4 mg.m-3 8-hour TWA of respirable dust. This means that any dust will be subject to COSHH if people are exposed above these levels. Some dusts have been assigned specific WELs and exposure to these must comply with the appropriate limit. Most industrial dusts contain particles of a wide range of sizes. The behaviour, deposition and fate of any particular particle after entry into the human respiratory system and the body response that it elicits, depend on the nature and size of the particle. HSE distinguishes two size fractions for limit-setting purposes termed 'inhalable' and 'respirable'. Inhalable dust approximates to the fraction of airborne material that enters the nose and mouth during breathing and is therefore available for deposition in the respiratory tract. Respirable dust approximates to the fraction that penetrates to the gas exchange region of the lung. Fuller definitions and explanatory material are given in MDHS14/3. Where dusts contain components that have their own assigned WEL, all the relevant limits should be complied with. Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used Magnesium</p>				

DNEL

sodium benzoate

: End Use: Industrial use
 Exposure routes: Skin contact
 Potential health effects: Long-term systemic effects
 Value: 34.7 mg/kg

End Use: Industrial use
 Exposure routes: Skin contact
 Potential health effects: Long-term local effects
 Value: 4.5 mg/cm2

End Use: Industrial use
 Exposure routes: Inhalation
 Potential health effects: Long-term systemic effects
 Value: 10.4 mg/m3

End Use: Industrial use
 Exposure routes: Inhalation
 Potential health effects: Long-term local effects
 Value: 6.3 mg/m3

(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine

: End Use: Industrial use
 Exposure routes: Inhalation
 Potential health effects: Long-term systemic effects

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - GB



Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

Value: 0.2 mg/m³

End Use: Industrial use
Exposure routes: Inhalation
Potential health effects: Acute systemic effects
Value: 18 mg/m³

End Use: Industrial use
Exposure routes: Inhalation
Potential health effects: Long-term local effects
Value: 0.01 mg/m³

End Use: Industrial use
Exposure routes: Inhalation
Potential health effects: Acute local effects
Value: 18 mg/m³

End Use: Industrial use
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 10 mg/kg

End Use: Industrial use
Exposure routes: Skin contact
Potential health effects: Acute systemic effects
Value: 100 mg/kg

2-(2-heptadec-8-enyl-2-imidazolyl)ethanol

: End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long-term exposure, Systemic effects

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term exposure, Systemic effects
Value: 0.46 mg/m³

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Short-term exposure, Systemic effects

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Short-term exposure, Systemic effects
Value: 14 mg/m³

PNEC

(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine

: Fresh water
Value: 0.00043 mg/l

Marine water
Value: 0.000043 mg/l

Intermittent use/release
Value: 0.0043 mg/l

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

Microbiological Activity in Sewage Treatment Systems
Value: 13 mg/l

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol : Fresh water
Value: 0.00003 mg/l

Marine water
Value: 0.000003 mg/l

Fresh water sediment
Value: 0.376 mg/kg

Marine sediment
Value: 0.0376 mg/kg

Soil
Value: 0.075 mg/kg

8.2 Exposure controls

Engineering measures

Maintain air concentrations below occupational exposure standards.

It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen deficient environment.

Ensure that dust-handling systems (such as exhaust ducts, dust collectors, vessels, and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is no leakage from the equipment).

none

Personal protective equipment

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Hand protection : For prolonged or repeated contact use protective gloves.
The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.
The choice of an appropriate glove does not only depend on its material but also on other quality features and is different from one producer to the other.
The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.

Eye protection : Safety glasses with side-shields conforming to EN166

Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

Environmental exposure controls

General advice : Do not allow contact with soil, surface or ground water.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform
respective authorities.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form : paste

Colour : white

Odour : characteristic

Odour Threshold : No data available

pH : No data available

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : not applicable

Evaporation rate : No data available

Flammability (solid, gas) : Combustible Solids

Lower explosion limit : No data available

Upper explosion limit : No data available

Vapour pressure : < 0.001 hPa, 20 °C

Relative vapour density : No data available

Density : 1.13 g/cm³, 20 °C

Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Ignition temperature : No data available

Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Oxidizing properties : No data available

9.2 Other information

Sublimation point : No data available

Bulk density : No data available

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

10. Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No dangerous reaction known under conditions of normal use.

10.4 Conditions to avoid

Conditions to avoid : No conditions to be specially mentioned.

10.5 Incompatible materials

Materials to avoid : No materials to be especially mentioned.

10.6 Hazardous decomposition products

Hazardous decomposition products : > 280°C danger of forming toxic pyrolysis products.

11. Toxicological information

11.1 Information on toxicological effects

Product

Acute inhalation toxicity : This information is not available.

Skin corrosion/irritation : This information is not available.

Serious eye damage/eye irritation : This information is not available.

Respiratory or skin sensitisation : This information is not available.

Germ cell mutagenicity

Genotoxicity in vitro : No data available

Genotoxicity in vivo : No data available

Carcinogenicity : No data available

Reproductive toxicity : No data available

Teratogenicity : No data available

Repeated dose toxicity : This information is not available.

Aspiration toxicity : This information is not available.

Further information : Information given is based on data on the components and the toxicology of similar products.

Components:

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

sodium benzoate :

- Acute oral toxicity : LD50: 4,070 mg/kg, rat
- Skin corrosion/irritation : rabbit, Result: No skin irritation, OECD Test Guideline 404
- Serious eye damage/eye irritation : rabbit, Result: Irritating to eyes., Classification: Irritating to eyes., OECD Test Guideline 405
- Germ cell mutagenicity
- Genotoxicity in vitro : Ames test, Result: negative, OECD Test Guideline 471
: Chromosome aberration test in vitro, Result: negative
- Genotoxicity in vivo : in vivo assay, rat, Result: negative
- Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Further information : Information given is based on data on the components and the toxicology of similar products.

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates :

- Acute oral toxicity : LD50: > 2,000 mg/kg, rat, OECD Test Guideline 401
- Acute dermal toxicity : LD50: > 2,000 mg/kg, rat, OECD Test Guideline 402
- Skin corrosion/irritation : rabbit, Result: Irritating to skin., Classification: Irritating to skin., OECD Test Guideline 404
- Serious eye damage/eye irritation : rabbit, Result: Irritating to eyes., Classification: Irritating to eyes., OECD Test Guideline 405
- Respiratory or skin sensitisation : guinea pig, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation.

(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine :

- Acute oral toxicity : LD50: 9,200 mg/kg, rat
- Acute inhalation toxicity : LC50: 1.37 mg/l, 4 h, rat, dust/mist
- Skin corrosion/irritation : rabbit, Result: Irritating to skin., Classification: Irritating to skin., OECD Test Guideline 404
- Serious eye damage/eye irritation : rabbit, Result: Risk of serious damage to eyes., Classification: Risk of serious damage to eyes., OECD Test Guideline 405
- Respiratory or skin sensitisation : Maximisation Test (GPMT), guinea pig, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation., OECD Test Guideline 406
- Germ cell mutagenicity
- Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.
- Aspiration toxicity : No aspiration toxicity classification

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol :

- Acute oral toxicity : LD50: 1,265 mg/kg, rat, OECD Test Guideline 401, GLP: yes

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

Acute dermal toxicity	: LD50: > 2,000 mg/kg, rabbit
Skin corrosion/irritation	: rabbit, Result: Corrosive, category 1C - where responses occur after exposures between 1 hour and 4 hours and observations up to 14 days., Classification: Causes burns., OECD Test Guideline 404, GLP: yes
Serious eye damage/eye irritation	: rabbit, Result: Corrosive, Classification: Corrosive, OECD Test Guideline 405
Respiratory or skin sensitisation	: guinea pig, Result: Does not cause skin sensitisation., Classification: Does not cause skin sensitisation., OECD Test Guideline 406
Repeated dose toxicity	: rat, Oral, 100 mg/kg, NOAEL: 20 mg/kg
STOT - repeated exposure	: Exposure routes: Ingestion Target Organs: Digestive organs, thymus gland Assessment: May cause damage to organs through prolonged or repeated exposure.

12. Ecological information

12.1 Toxicity

Product:

Toxicity to fish	: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Toxicity to daphnia and other aquatic invertebrates	: No data available
Toxicity to algae	: No data available
Toxicity to bacteria	: No data available

Components:

sodium benzoate :

Toxicity to fish	: LC50: 484 mg/l, 96 h, Pimephales promelas (fathead minnow)
Toxicity to daphnia and other aquatic invertebrates	: LC50: > 100 mg/l, 96 h, Daphnia dubia, static test, OECD Test Guideline 202
Toxicity to algae	: EC50: > 30.5 mg/l, 72 h, Pseudokirchneriella subcapitata, static test, OECD Test Guideline 201

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates :

Toxicity to fish	: LC50: 5.5 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout), OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	: EC50: 1.2 mg/l, 48 h, Daphnia magna (Water flea), Immobilization, OECD 202 T1

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

- Toxicity to algae : EC50: > 10 mg/l, 72 h, *Selenastrum capricornutum* (green algae), Growth inhibition, OECD Test Guideline 201
- Toxicity to bacteria : EC50: > 100 mg/l, 3 h, Bacteria, Respiration inhibition, OECD 209

Ecotoxicology Assessment

- Acute aquatic toxicity : Toxic to aquatic life.
- Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.

(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine :

- Toxicity to fish : LC50: 3.2 - 4.6 mg/l, 96 h, *Leuciscus idus* (Golden orfe), static test, DIN 38412
- Toxicity to daphnia and other aquatic invertebrates : EC50: 0.53 mg/l, 48 h, *Daphnia magna* (Water flea), static test, Directive 67/548/EEC, Annex V, C.2.
- Toxicity to algae : EC50: 5.1 mg/l, 72 h, *Desmodesmus subspicatus* (green algae), Growth inhibition, Directive 67/548/EEC, Annex V, C.3.
- M-Factor : 1
- Toxicity to bacteria : EC50: 1,300 mg/l, 3 h, Bacteria, Respiration inhibition, OECD 209, GLP: yes

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol :

- Toxicity to fish : LC50: 0.3 mg/l, 96 h, *Danio rerio* (zebra fish), static test, OECD Test Guideline 203
- Toxicity to daphnia and other aquatic invertebrates : EC50: 0.136 mg/l, 48 h, *Daphnia magna* (Water flea), Immobilization, OECD Test Guideline 202, GLP: yes
- Toxicity to algae : ErC50: 0.03 mg/l, 72 h, *Desmodesmus subspicatus* (green algae), Growth inhibition, OECD Test Guideline 201

- M-Factor** : **10**
- Toxicity to bacteria : EC50: 26 mg/l, 3 h, activated sludge, Respiration inhibition, OECD 209

12.2 Persistence and degradability

Product:

- Biodegradability : No data available
- Physico-chemical removability : No data available

Components:

sodium benzoate :

- Biodegradability : Result: rapidly biodegradable

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

Amines, C11-14-branched alkyl, monohexyl and dihexyl phosphates :

Biodegradability : Result: not rapidly biodegradable

(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine :

Biodegradability : aerobic, 85 %, Result: rapidly biodegradable, Exposure time: 28 d, activated sludge, OECD 301 B

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol :

Biodegradability : Primary biodegradation, Result: not rapidly biodegradable, OECD 301 B

12.3 Bioaccumulative potential

Product:

Bioaccumulation : This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT)., This mixture contains no substance considered to be very persistent nor very bioaccumulating (vPvB).

Components:

(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine :

Bioaccumulation : Due to the distribution coefficient n-octanol/water, accumulation in organisms is possible.

2-(2-heptadec-8-enyl-2-imidazolin-1-yl)ethanol :

Bioaccumulation : Bioconcentration factor (BCF): 371.8, Does not accumulate in organisms.

12.4 Mobility in soil

Product:

Mobility : No data available

Distribution among environmental compartments : No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Components:

(Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine :

Assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

12.6 Other adverse effects

Product:

Additional ecological information : Harmful to aquatic life with long lasting effects.

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

13. Disposal considerations

13.1 Waste treatment methods

- | | |
|------------------------|---|
| Product | : The product should not be allowed to enter drains, water courses or the soil. |
| | : Waste codes should be assigned by the user based on the application for which the product was used. |
| Contaminated packaging | : Empty containers can be landfilled, when in accordance with the local regulations. |

14. Transport information

14.1 UN number

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.2 Proper shipping name

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.3 Transport hazard class

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.4 Packing group

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

14.5 Environmental hazards

ADR

Not dangerous goods

IMDG

Not dangerous goods

IATA

Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

Not dangerous goods

14.6 Special precautions for user

No data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available

15. Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
- Major Accident Hazard Legislation : 96/82/EC Update: Dangerous for the environment 9b
Quantity 1: 200 t
Quantity 2: 500 t

15.2 Chemical Safety Assessment

This information is not available.

16. Other information

Full text of R-phrases referred to under sections 2 and 3

- | | |
|--------|--|
| R20 | Harmful by inhalation. |
| R22 | Harmful if swallowed. |
| R34 | Causes burns. |
| R36 | Irritating to eyes. |
| R36/38 | Irritating to eyes and skin. |
| R38 | Irritating to skin. |
| R41 | Risk of serious damage to eyes. |
| R48/22 | Harmful: danger of serious damage to health by prolonged exposure if swallowed. |
| R50 | Very toxic to aquatic organisms. |
| R50/53 | Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |

Full text of H-Statements referred to under sections 2 and 3.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - GB



Klüberpaste UH1 84-201

Version 2.0

Revision Date 29.09.2014

Print Date 29.09.2014

H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure if swallowed.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

This safety datasheet applies only to products originally packaged and labelled by KLÜBER LUBRICATION. The information contained therein is protected by copyright and must not be reproduced or amended without the express written approval of KLÜBER LUBRICATION. This document may be passed on only to the extent required by law. Any dissemination of our safety datasheets (e.g. as a document for download from the Internet) beyond this legally required extent is not permitted without express written consent. KLÜBER LUBRICATION provides its customers with amended safety datasheets as prescribed by law. The customer is responsible for passing on safety datasheets and any amendments contained therein to its own customers, employees and other users of the product. KLÜBER LUBRICATION provides no guarantee that safety datasheets received by users from third parties are up-to-date. All information and instructions in this safety datasheets were compiled to the best of our knowledge and are based on the information available to us. The data provided are intended to describe the product in relation to the required safety measures; they are neither an assurance of characteristics nor a guarantee of the product's suitability for particular applications and do not justify any contractual legal relationships.