

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

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

1.1 Product identifier

Product name : DUOTEMPI PMY 45
Article-No. : 005066

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

Use of the Sub- : Grease
stance/Mixture

Recommended restrictions : Restricted to professional users.
on use

1.3 Details of the supplier of the safety data sheet

Company : Klüber Lubrication München
Geisenhausenerstr. 7
81379 München
Deutschland
Tel: +49 (0) 89 7876 0
Fax: +49 (0) 89 7876 333
info@klueber.com

E-mail address of person : mcm@klueber.com
responsible for the SDS : Material Compliance Management

National contact : Klüber Lubrication Deutschland
Geisenhausenerstraße 7
81379 München
Deutschland
Tel.: +49 89 7876 0
Fax: +49 89 7876 565
customer.service.de@klueber.com
www.klueber.com

1.4 Emergency telephone number

Emergency telephone num- : +49 89 7876 700 (24 hrs)
ber

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Serious eye damage, Category 1 H318: Causes serious eye damage.

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.

Precautionary statements : **Prevention:**
P280 Wear eye protection/ face protection.

Response:
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Hazardous components which must be listed on the label:
calcium dihydroxide

2.3 Other hazards

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.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Synthetic hydrocarbon oil
Mineral oil.
solid lubricant
special lithium soap

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration limits M-Factor Notes	Concentration (% w/w)
calcium dihydroxide	1305-62-0 215-137-3 01-2119475151-45-XXXX	Skin Irrit.2; H315 Eye Dam.1; H318 STOT SE3; H335		>= 30 - < 50

SAFETY DATA SHEET

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



DUOTEMPI PMY 45

Version 1.7 Revision Date: 14.07.2020 Date of last issue: 19.02.2020 Print Date: 14.07.2020
Date of first issue: 09.02.2016

Substances with a workplace exposure limit :				
Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified	64742-52-5	Not classified	Note L	≥ 20 - < 30
	265-155-0			
	649-465-00-7			
	01-2119467170-45-XXXX			

For explanation of abbreviations see section 16.

SECTION 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 : Take off all contaminated clothing immediately.
Wash off immediately with soap and plenty of water.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
Get medical attention immediately.
- If swallowed : Move the victim to fresh air.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Pain
- Risks : Causes serious eye damage.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : No information available.

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Fire may cause evolution of:
Carbon oxides
Metal oxides
Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Exposure to decomposition products may be a hazard to health.

In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. 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.

SECTION 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.
Do not breathe vapours or spray mist.
Refer to protective measures listed in sections 7 and 8.
Evacuate personnel to safe areas.
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
Do not breathe vapours, aerosols.
Refer to protective measures listed in sections 7 and 8.

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

6.2 Environmental precautions

Environmental precautions : Do not allow contact with soil, surface or ground water.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Clean up promptly by sweeping or vacuum.
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours or spray mist.
In case of insufficient ventilation, wear suitable respiratory equipment.
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.
Do not get in eyes or mouth or on skin.
Do not get on skin or clothing.
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.
Avoid contact with skin and eyes.

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.
Do not get in eyes or mouth or on skin.
Do not get on skin or clothing.
Do not ingest.
Do not repack.
These safety instructions also apply to empty packaging which may still contain product residues.
Keep container closed when not in use.

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

SAFETY DATA SHEET

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



DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

handling.

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. 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.

Storage class (TRGS 510) : 11, Combustible Solids

7.3 Specific end use(s)

Specific use(s) : Specific instructions for handling, not required.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
calcium dihydroxide	1305-62-0	AGW (Inhalable fraction)	1 mg/m ³	DE TRGS 900 (2014-12-08)
Peak-limit: excursion factor (category)	2;(I)			
Further information	When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			
		TWA (Respirable fraction)	1 mg/m ³	2017/164/EU (2017-02-01)
Further information	Indicative			
		STEL (Respirable fraction)	4 mg/m ³	2017/164/EU (2017-02-01)
Further information	Indicative			
Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified	64742-52-5	AGW (Vapour and aerosols)	5 mg/m ³	DE TRGS 900 (2018-06-07)
Peak-limit: excursion factor (category)	4;(II)			
Further information	When there is compliance with the OEL and biological tolerance values, there is no risk of harming the unborn child			

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version 1.7 Revision Date: 14.07.2020 Date of last issue: 19.02.2020
Date of first issue: 09.02.2016

Print Date:
14.07.2020

Substance name	End Use	Exposure routes	Potential health effects	Value
calcium dihydroxide	Workers	Inhalation	Long-term local effects	1 mg/m ³
	Workers	Inhalation	Acute local effects	4 mg/m ³
Amides, C16-18 (even numbered), N,N'-ethylenebis	Workers	Inhalation	Long-term systemic effects	2,94 mg/m ³
	Workers	Skin contact	Long-term systemic effects	3,33 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
calcium dihydroxide	Fresh water	0,49 mg/l
	Marine water	0,32 mg/l
	Intermittent use/release	0,49 mg/l
	Microbiological Activity in Sewage Treatment Systems	3 mg/l
	Soil	1080 mg/kg
Amides, C16-18 (even numbered), N,N'-ethylenebis	Fresh water	10 mg/kg dry weight (d.w.)
	Marine water	1 mg/kg dry weight (d.w.)
	Sewage treatment plant	100 mg/l
	Soil	10 mg/kg dry weight (d.w.)

8.2 Exposure controls

Engineering measures

none

Personal protective equipment

Eye protection : Tightly fitting safety goggles

Hand protection

Material : Nitrile rubber
Break through time : > 10 min
Protective index : Class 1

Remarks : For prolonged or repeated contact use protective gloves. 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.
The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type P

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version 1.7	Revision Date: 14.07.2020	Date of last issue: 19.02.2020 Date of first issue: 09.02.2016	Print Date: 14.07.2020
----------------	------------------------------	---	---------------------------

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.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	: paste
Colour	: beige
Odour	: oily
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
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapour pressure	: < 0,001 hPa (20 °C)
Relative vapour density	: No data available
Density	: 1,20 g/cm ³ (20 °C)
Bulk density	: No data available
Solubility(ies) Water solubility	: insoluble

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

Solubility in other solvents : No data available

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

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity

 Viscosity, dynamic : Not applicable

 Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : No data available

9.2 Other information

Sublimation point : No data available

Self-ignition : No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

No hazards to be specially mentioned.

10.2 Chemical stability

Stable under normal conditions.

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

No decomposition if stored and applied as directed.

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

- Acute oral toxicity : Remarks: This information is not available.
- Acute inhalation toxicity : Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : Remarks: This information is not available.

Components:

calcium dihydroxide:

- Acute oral toxicity : LD50 (Rat, female): > 2.000 mg/kg
Method: OECD Test Guideline 425
GLP: yes
Assessment: The substance or mixture has no acute oral toxicity
- Acute inhalation toxicity : LC50 (Rat, male and female): > 6,04 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 436
GLP: yes
- Acute dermal toxicity : LD50 (Rabbit, male and female): > 2.500 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

- Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401
GLP: yes
- Acute inhalation toxicity : LC50 (Rat): > 5,53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Assessment: The substance or mixture has no acute inhalation toxicity
- Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

Skin corrosion/irritation

Product:

Assessment : No skin irritation
Result : No skin irritation
Remarks : Information given is based on tests on the mixture itself.
According to the classification criteria of the European Union,
the product is not considered as being a skin irritant.

Components:

calcium dihydroxide:

Species : human skin
Assessment : Irritating to skin.
Method : OECD Test Guideline 431
Result : Irritating to skin.
GLP : yes

Species : Rabbit
Assessment : Irritating to skin.
Method : OECD Test Guideline 404
Result : Irritating to skin.
GLP : yes

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation

Serious eye damage/eye irritation

Product:

Remarks : Risk of serious damage to eyes.

Components:

calcium dihydroxide:

Species : Rabbit
Assessment : Risk of serious damage to eyes.
Method : OECD Test Guideline 405
Result : Risk of serious damage to eyes.
GLP : yes

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

Species : Rabbit
Assessment : No eye irritation
Method : OECD Test Guideline 405
Result : No eye irritation
GLP : yes

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Assessment : No skin irritation, Not a respiratory irritant

Components:

calcium dihydroxide:

Test Type : Local lymph node assay (LLNA)
Species : Mouse
Assessment : Does not cause skin sensitisation.
Method : OECD Test Guideline 429
Result : Does not cause skin sensitisation.
GLP : yes

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

Species : Guinea pig
Assessment : Does not cause skin sensitisation.
Method : OECD Test Guideline 406
Result : Does not cause skin sensitisation.

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Components:

calcium dihydroxide:

Genotoxicity in vitro : Test Type: Ames test
Method: OECD Test Guideline 471
Result: negative
GLP: yes

Test Type: Chromosome aberration test in vitro
Method: OECD Test Guideline 473
Result: negative
GLP: yes

Test Type: In vitro mammalian cell gene mutation test
Method: OECD Test Guideline 476
Result: negative
GLP: yes

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

- Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster ovary cells
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
- Genotoxicity in vivo : Test Type: Micronucleus test
Species: Mouse
Cell type: Bone marrow
Application Route: Intraperitoneal injection
Method: OECD Test Guideline 474
Result: negative
- Germ cell mutagenicity- Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Product:

Remarks : No data available

Components:

calcium dihydroxide:

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

Components:

calcium dihydroxide:

Reproductive toxicity - Assessment : No toxicity to reproduction
No effects on or via lactation

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

Effects on foetal development : Species: Rat
Application Route: Dermal

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

General Toxicity Maternal: LOAEL: 125 mg/kg body weight
Teratogenicity: NOAEL: \geq 2.000 mg/kg body weight
Developmental Toxicity: NOAEL: \geq 2.000 mg/kg body weight
Embryo-foetal toxicity: NOAEL: \geq 2.000 mg/kg body weight
Method: OECD Test Guideline 414
Result: No effects on fertility and early embryonic development were detected.

Reproductive toxicity - Assessment : No toxicity to reproduction
No toxicity to reproduction

STOT - single exposure

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

Components:

calcium dihydroxide:

Assessment : May cause respiratory irritation.

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Product:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Components:

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Product:

Remarks : This information is not available.

Aspiration toxicity

Product:

This information is not available.

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

Components:

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

No aspiration toxicity classification

Further information

Product:

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

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish : Remarks: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Toxicity to daphnia and other aquatic invertebrates : Remarks: No data available

Toxicity to algae/aquatic plants : Remarks: No data available

Toxicity to microorganisms : Remarks: No data available

Components:

calcium dihydroxide:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 50,6 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 49,1 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): 184,57 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 32 mg/l
Exposure time: 14 d
Species: Crangon crangon (shrimp)
Test Type: semi-static test

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10.000 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : LC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to fish (Chronic toxicity) : NOELR: \geq 1.000 mg/l
Exposure time: 28 d
Species: Oncorhynchus mykiss (rainbow trout)
Remarks: The value is calculated

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOELR: 10 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)
Test Type: Reproduction Test
Method: OECD Test Guideline 211

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

Components:

calcium dihydroxide:

Biodegradability : Remarks: The methods for determining the biological degradability are not applicable to inorganic substances.

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

Biodegradability : Test Type: aerobic

SAFETY DATA SHEET

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



DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: 3 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes

12.3 Bioaccumulative potential

Product:

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

12.4 Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: 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:

Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil — unspecified:

Assessment : Non-classified PBT substance. Non-classified vPvB substance.

12.6 Other adverse effects

Product:

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

SAFETY DATA SHEET

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



DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

courses or the soil.
Do not dispose of with domestic refuse.
Dispose of as hazardous waste in compliance with local and national regulations.

Waste codes should be assigned by the user based on the application for which the product was used.

Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Dispose of waste product or used containers according to local regulations.

The following Waste Codes are only suggestions:

Waste Code : used product, unused product
12 01 12*, spent waxes and fats

uncleaned packagings
15 01 10, packaging containing residues of or contaminated by hazardous substances

SECTION 14: Transport information

14.1 UN number

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.2 UN proper shipping name

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.3 Transport hazard class(es)

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA : Not regulated as a dangerous good

14.4 Packing group

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA (Cargo) : Not regulated as a dangerous good
IATA (Passenger) : Not regulated as a dangerous good

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

14.5 Environmental hazards

ADR : Not regulated as a dangerous good
IMDG : Not regulated as a dangerous good
IATA (Passenger) : Not regulated as a dangerous good
IATA (Cargo) : Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Remarks : Not applicable for product as supplied.

SECTION 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).

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable

Regulation (EU) 2019/1021 on persistent organic pollutants (recast) : Not applicable

Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.

34

Petroleum products: (a) gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams), (d) heavy fuel oils (e) alternative fuels serving the same purposes and with similar

SAFETY DATA SHEET

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

KLÜBER
LUBRICATION

DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

properties as regards
flammability and environ-
mental hazards as the
products referred to in
points (a) to (d)

Water contaminating class (Germany) : WGK 1 slightly hazardous to water
Classification according to AwSV, Annex 1 (5.2)

TA Luft List (Germany) : Total dust:
others: 55,7 %

Inorganic substances in powdered form:
Not applicable
Inorganic substances in vapour or gaseous form:
Not applicable
Organic Substances:
portion Class 1: < 0,01 %
others: 44,3 %

Carcinogenic substances:
Not applicable
Mutagenic:
Not applicable
Toxic to reproduction:
Not applicable

Volatile organic compounds : Directive 2010/75/EU of 24 November 2010 on industrial
emissions (integrated pollution prevention and control)
Not applicable

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements

H315 : Causes skin irritation.
H318 : Causes serious eye damage.
H335 : May cause respiratory irritation.

Full text of other abbreviations

Note L : The classification as a carcinogen need not apply if it can be
shown that the substance contains less than 3 % DMSO ex-
tract as measured by IP 346 "Determination of polycyclic aro-
matics in unused lubricating base oils and asphaltene free
petroleum fractions - Dimethyl sulphoxide extraction refractive
index method", Institute of Petroleum, London. This note ap-
plies only to certain complex oil-derived substances in Part 3.

SAFETY DATA SHEET

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



DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

2017/164/EU : Commission Directive (EU) 2017/164 establishing a fourth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC, and amending Commission Directives 91/322/EEC, 2000/39/EC and 2009/161/EU

DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.

2017/164/EU / STEL : Short term exposure limit

2017/164/EU / TWA : Limit Value - eight hours

DE TRGS 900 / AGW : Time Weighted Average

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Eye Dam. 1 H318

Classification procedure:

Calculation method

This safety data sheet applies only to products as originally packed and labelled. The information contained therein may not be reproduced or modified without our express written permission. Any forwarding of this document is only permitted to the extent required by law. Any further, in particular public, dissemination of the safety data sheet (e.g. as a document for download from the Internet) is not permitted without our express written consent. We provide our customers with

SAFETY DATA SHEET

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



DUOTEMPI PMY 45

Version	Revision Date:	Date of last issue: 19.02.2020	Print Date:
1.7	14.07.2020	Date of first issue: 09.02.2016	14.07.2020

amended safety data sheets as prescribed by law. The customer is responsible for passing on safety data sheets and any amendments contained therein to its own customers, employees and other users of the product. We provide no guarantee that safety data sheets received by users from third parties are up-to-date. All information and instructions in this safety data sheet have been compiled to the best of our knowledge and are based on the information available to us on the day of publication. The information provided is intended to describe the product in relation to the required safety measures; it is neither an assurance of characteristics nor a guarantee of the product's suitability for particular applications and does not justify any contractual legal relationship. The existence of a safety data sheet for a particular jurisdiction does not necessarily mean that import or use within that jurisdiction is legally permitted. If you have any questions, please contact your responsible sales contact or authorized trading partner.