

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

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

1.1 Product identifier

Product name : Klüberplex AG 11-462

Article-No. : 039091

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

Use of the Sub-
stance/Mixture : Grease

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
responsible for the SDS : mcm@klueber.com
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-
ber : +49 89 7876 700 (24 hrs)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

Additional Labelling

EUH210 Safety data sheet available on request.

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.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mineral oil.
ester oil
aluminium complex soap
solid lubricant

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	specific concentration limit M-Factor Notes Acute toxicity estimate	Concentration (% w/w)
1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol	939-692-2 01-2119983498-16-XXXX	Aquatic Chronic3; H412		>= 1 - < 2,5
Reaction products of fatty acids, C16-18, C18 unsatd. with Amines, polyethylene-poly-, triethylenetet-	947-263-6 01-2120761103-66-	Skin Irrit.2; H315 Repr.2; H361fd Aquatic Chronic4; H413		>= 1 - < 2,5

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version 2.14 Revision Date: 25.08.2021 Date of last issue: 14.07.2021 Print Date: 25.08.2021
Date of first issue: 22.12.2015

ramine fraction and 3-(C9–C15, C12 rich, alk-1-enyl)dihydro-2,5-furandione	XXXX			
Substances with a workplace exposure limit :				
residual oils (petroleum), hydrotreated	64742-57-0 265-160-8 649-470-00-4 01-2119489287-22-XXXX	Not classified	Note L	$\geq 30 - < 50$
distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0 265-169-7 649-474-00-6 01-2119471299-27-XXXX	Not classified	Note L	$\geq 1 - < 10$
magnesium oxide	1309-48-4 215-171-9	Not classified		$\geq 1 - < 10$

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- If inhaled : Obtain medical attention.
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.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
Wash off immediately with plenty of water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

for at least 10 minutes.
If eye irritation persists, consult a specialist.

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.
Obtain medical attention.
Never give anything by mouth to an unconscious person.

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.

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

Hazardous combustion products : Carbon oxides
Nitrogen oxides (NO_x)
Sulphur oxides
Metal oxides

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.

Further information : Standard procedure for chemical fires.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

KLüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : 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.

6.2 Environmental precautions

Environmental precautions : Try to prevent the material from entering drains or water courses.
Local authorities should be advised if significant spillages cannot be contained.

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 : 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 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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLUBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

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
residual oils (petroleum), hydrotreated	64742-57-0	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			
distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	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			
magnesium oxide	1309-48-4	AGW (Inhalable fraction)	10 mg/m ³	DE TRGS 900 (2014-04-02)
	Peak-limit: excursion factor (category): 2;(II)			
		AGW (Alveolate fraction)	1,25 mg/m ³	DE TRGS 900 (2014-04-02)
	Peak-limit: excursion factor (category): 2;(II)			

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

Substance name	End Use	Exposure routes	Potential health effects	Value
residual oils (petroleum), hydrotreated	Workers	Inhalation	Long-term systemic effects	2,7 mg/m ³
	Workers	Inhalation	Acute systemic effects	5,6 mg/m ³
	Workers	Skin contact	Long-term systemic effects	1 mg/kg
zinc sulphide	Workers	Inhalation	Long-term systemic effects	5 mg/m ³
	Workers	Dermal	Long-term systemic effects	83 mg/kg

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLUBER
LUBRICATION

Klüberplex AG 11-462

Version 2.14 Revision Date: 25.08.2021 Date of last issue: 14.07.2021 Print Date: 25.08.2021
Date of first issue: 22.12.2015

			effects	bw/day
1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol	Workers	Inhalation	Long-term systemic effects	4,408 mg/m ³
	Workers	Skin contact	Long-term systemic effects	6,25 mg/kg bw/day
diisononyl adipate	Workers	Inhalation	Long-term systemic effects	26,5 mg/m ³
	Workers	Skin contact	Long-term systemic effects	34 mg/kg
Reaction products of fatty acids, C16-18, C18 unsatd. with Amines, polyethylenepoly-, triethylenetetramine fraction and 3-(C9-C15, C12 rich, alk-1-enyl)dihydro-2,5-furandione	Workers	Inhalation	Long-term systemic effects	3,72 mg/m ³
	Workers	Skin contact	Long-term systemic effects	1,04 mg/m ³

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

Substance name	Environmental Compartment	Value	
zinc sulphide	Fresh water	0,0206 mg/l	
	Marine water	0,0061 mg/l	
	Microbiological Activity in Sewage Treatment Systems	0,1 mg/l	
	Fresh water sediment	117,8 mg/kg	
	Marine sediment	56,5 mg/kg	
	Soil	35,6 mg/kg	
	Oral	9,33 mg/kg	
distillates (petroleum), solvent-dewaxed heavy paraffinic	Oral	9,33 mg/kg	
	1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol	Fresh water	0,041 mg/l
		Marine water	0,0041 mg/l
		Intermittent use/release	0,41 mg/l
		Microbiological Activity in Sewage Treatment Systems	8000 mg/l
		Fresh water sediment	380,62 mg/kg
		Marine sediment	38,06 mg/kg
Soil		308,98 mg/kg	
diisononyl adipate	Oral	6,67 mg/kg	
	Microbiological Activity in Sewage Treatment Systems	100 mg/l	
	Soil	0,865 mg/kg	

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

Reaction products of fatty acids, C16-18, C18 unsatd. with Amines, polyethylenepoly-, triethylenetetramine fraction and 3-(C9-C15, C12 rich, alk-1-enyl)dihydro-2,5-furandione	Fresh water	0,496 mg/l
	Marine water	0,05 mg/l
	Microbiological Activity in Sewage Treatment Systems	100 mg/l
	Fresh water sediment	3772830,55 mg/kg
	Marine sediment	377283,06 mg/kg
	Soil	3935351,65 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).

Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Eye protection : Safety glasses with side-shields

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

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 concen-

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version 2.14	Revision Date: 25.08.2021	Date of last issue: 14.07.2021 Date of first issue: 22.12.2015	Print Date: 25.08.2021
-----------------	------------------------------	---	---------------------------

tration 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

Physical state	:	paste
Colour	:	white
Odour	:	characteristic
Odour Threshold	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	No data available
Flammability	:	Combustible Solids
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Flash point	:	Not applicable
Auto-ignition temperature	:	No data available
Decomposition temperature Decomposition temperature	:	No data available
pH	:	Not applicable
Viscosity Viscosity, dynamic	:	No data available
Viscosity, kinematic	:	Not applicable
Solubility(ies) Water solubility	:	insoluble
Solubility in other solvents	:	No data available

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

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

Vapour pressure : < 0,001 hPa (20 °C)

Relative density : 1,05 (20 °C)
Reference substance: Water
The value is calculated

Density : 1,05 g/cm³
(20 °C)

Bulk density : No data available

Relative vapour density : No data available

9.2 Other information

Explosives : Not explosive

Oxidizing properties : No data available

Self-ignition : No data available

Evaporation rate : No data available

Sublimation point : 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
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Remarks: This information is not available.

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401

Acute inhalation toxicity : LC50 (Rat): > 2,75 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity
Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum achievable concentration.
Information given is based on data obtained from similar substances.

Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity
Remarks: Information given is based on data obtained from similar substances.

Reaction products of fatty acids, C16-18, C18 unsatd. with Amines, polyethylenepoly-, triethylenetetramine fraction and 3-(C9-C15, C12 rich, alk-1-enyl)dihydro-2,5-furandione

:
Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 423
GLP: yes

residual oils (petroleum), hydrotreated:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 5.000 mg/kg

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

Method: OECD Test Guideline 402

distillates (petroleum), solvent-dewaxed heavy paraffinic:

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): > 5.000 mg/kg
Method: OECD Test Guideline 402

magnesium oxide:

Acute oral toxicity : LD50 (Rat, male): 3.870 mg/kg

Skin corrosion/irritation

Product:

Remarks : This information is not available.

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

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

Reaction products of fatty acids, C16-18, C18 unsatd. with Amines, polyethylenepoly-, triethyl-
enetetramine fraction and 3-(C9-C15, C12 rich, alk-1-enyl)dihydro-2,5-furandione

:

Species : human skin
Assessment : Irritating to skin.
Method : OECD Test Guideline 439
Result : Irritating to skin.
GLP : yes

residual oils (petroleum), hydrotreated:

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

distillates (petroleum), solvent-dewaxed heavy paraffinic:

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

Serious eye damage/eye irritation

Product:

Remarks : This information is not available.

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

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

Reaction products of fatty acids, C16-18, C18 unsatd. with Amines, polyethylenepoly-, triethyl-enetetramine fraction and 3-(C9–C15, C12 rich, alk-1-enyl)dihydro-2,5-furandione

:
Assessment : No eye irritation
Result : No eye irritation

residual oils (petroleum), hydrotreated:

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

distillates (petroleum), solvent-dewaxed heavy paraffinic:

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

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

Test Type : Buehler Test
Species : Guinea pig
Assessment : Did not cause sensitisation on laboratory animals.
Method : OECD Test Guideline 406
Result : Did not cause sensitisation on laboratory animals.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

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:

Assessment : Did not cause sensitisation on laboratory animals.
Result : Did not cause sensitisation on laboratory animals.

residual oils (petroleum), hydrotreated:

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

Assessment : Does not cause respiratory sensitisation.
Result : Does not cause respiratory sensitisation.

distillates (petroleum), solvent-dewaxed heavy paraffinic:

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

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

Genotoxicity in vitro : Test Type: In vitro mammalian cell gene mutation test
Test system: Chinese hamster fibroblasts
Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 473
Result: negative
Remarks: Information given is based on data obtained from similar substances.

Germ cell mutagenicity- Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

distillates (petroleum), solvent-dewaxed heavy paraffinic:

Genotoxicity in vitro : Test system: Salmonella typhimurium

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

Metabolic activation: with and without metabolic activation
Method: OECD Test Guideline 471
Result: negative

Genotoxicity in vivo : Species: Mouse
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative

Carcinogenicity

Product:

Remarks : No data available

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

residual oils (petroleum), hydrotreated:

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

distillates (petroleum), solvent-dewaxed heavy paraffinic:

Species : Mouse
Application Route : Dermal
Method : OECD Test Guideline 451
Result : negative

Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

Effects on fertility : Species: Rat
Application Route: Oral
General Toxicity - Parent: NOAEL: 1.000 mg/kg body weight
General Toxicity F1: NOAEL: 1.000 mg/kg body weight
Method: OECD Test Guideline 421
Remarks: Information given is based on data obtained from

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version 2.14	Revision Date: 25.08.2021	Date of last issue: 14.07.2021 Date of first issue: 22.12.2015	Print Date: 25.08.2021
-----------------	------------------------------	---	---------------------------

similar substances.

Reproductive toxicity - Assessment : - Fertility -
No toxicity to reproduction
- Teratogenicity -
Animal testing did not show any effects on foetal development.

Reaction products of fatty acids, C16-18, C18 unsatd. with Amines, polyethylenepoly-, triethylenetetramine fraction and 3-(C9-C15, C12 rich, alk-1-enyl)dihydro-2,5-furandione

:
Reproductive toxicity - Assessment : - Fertility -
Some evidence of adverse effects on development, based on animal experiments., Some evidence of adverse effects on sexual function and fertility, based on animal experiments.
- Teratogenicity -
Some evidence of adverse effects on development, based on animal experiments., Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

distillates (petroleum), solvent-dewaxed heavy paraffinic:

Effects on foetal development : Species: Rat
Application Route: Dermal
General Toxicity Maternal: NOAEL: 30 mg/kg body weight
Developmental Toxicity: NOAEL: 30 mg/kg body weight
Method: OECD Test Guideline 414

STOT - single exposure

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

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

STOT - repeated exposure

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

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

Repeated dose toxicity

Product:

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

Remarks : This information is not available.

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

Species : Rat
NOAEL : 250 mg/kg
Application Route : Oral
Method : OECD Test Guideline 421
Remarks : Information given is based on data obtained from similar substances.

Aspiration toxicity

Product:

This information is not available.

Components:

residual oils (petroleum), hydrotreated:

No aspiration toxicity classification

distillates (petroleum), solvent-dewaxed heavy paraffinic:

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: No data available

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 1.000 mg/l
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): 41 mg/l
aquatic invertebrates : Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100
plants : mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201

Ecotoxicology Assessment

Acute aquatic toxicity : Harmful to aquatic life.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

Reaction products of fatty acids, C16-18, C18 unsatd. with Amines, polyethylenepoly-, triethyl-
enetetramine fraction and 3-(C9–C15, C12 rich, alk-1-enyl)dihydro-2,5-furandione

:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 1.000 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 1.000 mg/l
aquatic invertebrates : Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic : EC50 (Pseudokirchneriella subcapitata (green algae)): 496
plants : mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

residual oils (petroleum), hydrotreated:

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 10.000 mg/l
Exposure time: 48 h
Test Type: Immobilization

distillates (petroleum), solvent-dewaxed heavy paraffinic:

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 : NOEC (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 10 mg/l
Exposure time: 21 d
Species: Daphnia magna (Water flea)

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

Biodegradability : Test Type: Primary biodegradation
Inoculum: activated sludge
Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

Reaction products of fatty acids, C16-18, C18 unsatd. with Amines, polyethylenepoly-, triethylenetetramine fraction and 3-(C9–C15, C12 rich, alk-1-enyl)dihydro-2,5-furandione

:
Biodegradability : Test Type: anaerobic

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

Inoculum: activated sludge
Concentration: 3,77 mg/l
Result: Not readily biodegradable.
Biodegradation: 10 %
Exposure time: 28 d
Method: OECD Test Guideline 301D
GLP: yes

residual oils (petroleum), hydrotreated:

Biodegradability : Result: Not rapidly biodegradable

distillates (petroleum), solvent-dewaxed heavy paraffinic:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: 31 %
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).

Components:

1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol:

Bioaccumulation : Species: Fish
Bioconcentration factor (BCF): 3,16

Partition coefficient: n-octanol/water : log Pow: 8 (20 °C)

Reaction products of fatty acids, C16-18, C18 unsatd. with Amines, polyethylenepoly-, triethylenetetramine fraction and 3-(C9–C15, C12 rich, alk-1-enyl)dihydro-2,5-furandione

:

Partition coefficient: n-octanol/water : log Pow: > 10

magnesium oxide:

Partition coefficient: n-octanol/water : Remarks: Not applicable

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

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..

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological information : No information on ecology is available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

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 or ID number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Maritime transport in bulk according to IMO instruments

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 - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: monoalkyl or monoaryl or monoalkyaryl esters of methacrylic acid (Number on list 3)

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). (EU SVHC) : 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) (EU. REACH - Annex XIV) : Not applicable

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLÜBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

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

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

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

Regulation (EU) 2019/1148 on the marketing and use of explosives precursors : 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. : Not applicable

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: 24,71 %

Inorganic substances in powdered form:
Not applicable
Inorganic substances in vapour or gaseous form:
Not applicable
Organic Substances:
portion Class 1: 1 %
others: 74,29 %

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.

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)

KLUBER
LUBRICATION

Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

SECTION 16: Other information

Full text of H-Statements

H315 : Causes skin irritation.
H361fd : Suspected of damaging fertility. Suspected of damaging the unborn child.
H412 : Harmful to aquatic life with long lasting effects.
H413 : May cause long lasting harmful effects to aquatic life.

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 extract as measured by IP 346 "Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions - Dimethyl sulphoxide extraction refractive index method", Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

DE TRGS 900 : Germany. TRGS 900 - Occupational exposure limit values.
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; AIIIC - Australian Inventory of Industrial Chemicals; 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

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 - DE
(Commission Regulation (EU) 2020/878)



Klüberplex AG 11-462

Version	Revision Date:	Date of last issue: 14.07.2021	Print Date:
2.14	25.08.2021	Date of first issue: 22.12.2015	25.08.2021

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

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