

# SAFETY DATA SHEET

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

**KLÜBER**  
LUBRICATION

## ISOFLEX TOPAS L 32

Version	Revision Date:	Date of last issue: 19.01.2021	Print Date:
1.8	13.09.2021	Date of first issue: 15.06.2015	13.09.2021

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

#### 1.1 Product identifier

Product name : ISOFLEX TOPAS L 32  
Article-No. : 004130

#### 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.

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### 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 : Synthetic hydrocarbon oil  
lithium soap

#### Components

Chemical name	CAS-No. EC-No.  Index-No. Registration number	Classification	specific concentration limit M-Factor Notes Acute toxicity estimate	Concentration (% w/w)
Dec-1-ene, homopolymer, hydrogenated	68037-01-4 500-183-1  01-2119486452-34-XXXX	Asp. Tox.1; H304		>= 70 - < 90
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

For explanation of abbreviations see section 16.

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### 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.  
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.  
Never give anything by mouth to an unconscious person.

#### 4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : Allergic appearance
- Risks : May cause an allergic skin reaction.

#### 4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media

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

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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<sub>x</sub>)  
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.

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## 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.

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## 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.

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Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

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 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

Contains no substances with occupational exposure limit values.

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

Substance name	End Use	Exposure routes	Potential health effects	Value
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 <sup>3</sup>
	Workers	Skin contact	Long-term systemic effects	6,25 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
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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
	Oral	6,67 mg/kg

### 8.2 Exposure controls

#### Engineering measures

none

#### 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 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

Physical state : paste

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Colour	:	beige
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
Partition coefficient: n-octanol/water	:	No data available
Vapour pressure	:	< 0,001 hPa (20 °C)
Relative density	:	0,88 (20 °C) Reference substance: Water The value is calculated
Density	:	0,88 g/cm <sup>3</sup> (20 °C)

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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.

## 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 : Remarks: This information is not available.



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Acute dermal toxicity : Symptoms: Redness, Local irritation

### Components:

#### **Dec-1-ene, homopolymer, hydrogenated:**

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg  
Method: OECD Test Guideline 423  
GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 5,2 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 (Rat): > 2.000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

#### **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.

### **Skin corrosion/irritation**

#### Product:

Remarks : This information is not available.

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### Components:

#### **Dec-1-ene, homopolymer, hydrogenated:**

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

#### **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

### **Serious eye damage/eye irritation**

#### Product:

Remarks : This information is not available.

### Components:

#### **Dec-1-ene, homopolymer, hydrogenated:**

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

#### **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

### **Respiratory or skin sensitisation**

#### Product:

Remarks : This information is not available.

### Components:

#### **Dec-1-ene, homopolymer, hydrogenated:**

Test Type : Maximisation Test  
Species : Guinea pig  
Assessment : Does not cause skin sensitisation.

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Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.  
GLP : yes

### **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.

### **Germ cell mutagenicity**

#### **Product:**

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

#### **Components:**

#### **Dec-1-ene, homopolymer, hydrogenated:**

Genotoxicity in vitro : Test Type: Ames test  
Method: Mutagenicity (Escherichia coli - reverse mutation assay)  
Result: negative  
GLP: yes

Germ cell mutagenicity- Assessment : Animal testing did not show any mutagenic effects.

### **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.

### **Carcinogenicity**

#### **Product:**

Remarks : No data available

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### Components:

#### **Dec-1-ene, homopolymer, hydrogenated:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

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

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:

#### **Dec-1-ene, homopolymer, hydrogenated:**

Reproductive toxicity - Assessment : - Fertility -  
No toxicity to reproduction  
- Teratogenicity -  
Did not show teratogenic effects in animal experiments.

#### **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 similar substances.

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

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### 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:

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:

No aspiration toxicity classification

#### Components:

#### **Dec-1-ene, homopolymer, hydrogenated:**

May be fatal if swallowed and enters airways.

### Further information

#### Product:

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

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## 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

#### Components:

##### **Dec-1-ene, homopolymer, hydrogenated:**

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 aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 1.000 mg/l  
Exposure time: 48 h  
Test Type: Immobilization  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (Scenedesmus capricornutum (fresh water algae)): > 1.000 mg/l  
Exposure time: 72 h  
Test Type: Growth inhibition  
Method: OECD Test Guideline 201  
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC: 125 mg/l  
Exposure time: 21 d  
Species: Daphnia magna (Water flea)

##### **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 aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 41 mg/l  
Exposure time: 48 h

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Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 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.

## 12.2 Persistence and degradability

### Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

### Components:

#### **Dec-1-ene, homopolymer, hydrogenated:**

Biodegradability : Test Type: Primary biodegradation  
Inoculum: activated sludge  
Result: Not readily biodegradable.  
Method: OECD Test Guideline 301B

#### **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

## 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:

#### **Dec-1-ene, homopolymer, hydrogenated:**

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Partition coefficient: n-octanol/water : log Pow: > 6,5 (20 °C)

### **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)

### 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:**

#### **Dec-1-ene, homopolymer, hydrogenated:**

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

### 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.



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## ISOFLEX TOPAS L 32

Version	Revision Date:	Date of last issue: 19.01.2021	Print Date:
1.8	13.09.2021	Date of first issue: 15.06.2015	13.09.2021

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

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

# SAFETY DATA SHEET

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

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### 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) : Not applicable
- 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
- 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 2 obviously hazardous to water  
Classification according to AwSV, Annex 1 (5.2)
- TA Luft List (Germany) : Total dust:  
others: 11,74 %
- Inorganic substances in powdered form:  
Not applicable  
Inorganic substances in vapour or gaseous form:  
Not applicable  
Organic Substances:  
portion Class 1: < 0,01 %  
others: 88,26 %

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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

H304 : May be fatal if swallowed and enters airways.  
H412 : Harmful to aquatic life with long lasting effects.

### Full text of other abbreviations

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 Re-

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striction 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

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