

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version	Revision Date:	Date of last issue: 2022-06-20	Print Date: 2023-
1.9	2023-05-16	Date of first issue: 2015-06-17	05-16

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

1.1 Product identifier

Product name : ISOFLEX LDS 18 SPECIAL A

Article-No. : 004013

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

Use of the Substance/Mixture : Grease

Recommended restrictions on use : Restricted to professional users.

1.3 Details of the supplier of the safety data sheet

Company : Klüber Lubrication München GmbH & Co. KG
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 Nordic A/S
Vasagatan 36
111 20 Stockholm
Sweden
Tel: +46 8 59098600
Fax: +46 8 59098601
klueber.se@se.klueber.com

1.4 Emergency telephone number

Emergency telephone number : 112 - ask for poison information
+49 89 7876 700 (24 hrs)

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version	Revision Date:	Date of last issue: 2022-06-20	Print Date: 2023-
1.9	2023-05-16	Date of first issue: 2015-06-17	05-16

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

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 : ester oil
Mineral 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)
1,3,4-Thiadiazolidine-		Aquatic Chronic3;		>= 1 - < 2,5

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

2,5-dithione, reaction products with hydrogen peroxide and tert-dodecanethiol	939-692-2 01-2119983498-16-XXXX	H412		
Substances with a workplace exposure limit :				
White mineral oil (petroleum)	8042-47-5 232-455-8 01-2119487078-27-XXXX	Not classified		>= 10 - < 20
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified	64742-65-0 265-169-7 649-474-00-6 01-2119471299-27-XXXX	Not classified	Note L	>= 10 - < 20
lithium 12-hydroxystearate	7620-77-1 231-536-5 01-2119970893-23-XXXX 01-2119970893-23-XXXX 01-2119970893-23-XXXX 01-2119970893-23-XXXX	Not classified		>= 1 - < 10

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 breathing is irregular or stopped, administer artificial respiration. |
| In case of skin contact | : | Remove contaminated clothing. If irritation develops, get medical attention.
Wash off with soap and 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 - SE
(Commission Regulation (EU) 2020/878)



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

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

If swallowed : Move the victim to fresh air.
Do not induce vomiting without medical advice.
Obtain medical attention.

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 (NOx)
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.

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

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

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 : 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.

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.

7.3 Specific end use(s)

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

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version	Revision Date:	Date of last issue: 2022-06-20	Print Date: 2023-
1.9	2023-05-16	Date of first issue: 2015-06-17	05-16

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure Limits

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
White mineral oil (petroleum)	8042-47-5	NGVTime Weighted Average (Mist)	1 mg/m3	SE AFS (2020-09-28)
		KGVShort Term Exposure Limit (Mist)	3 mg/m3	SE AFS (2020-09-28)
Further information: Indicative short term limit value shall be used as a recommended maximum value and should not be exceeded				
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified	64742-65-0	NGVTime Weighted Average (Mist)	1 mg/m3	SE AFS (2020-09-28)
		KGVShort Term Exposure Limit (Mist)	3 mg/m3	SE AFS (2020-09-28)
Further information: Indicative short term limit value shall be used as a recommended maximum value and should not be exceeded				
lithium 12-hydroxystearate	7620-77-1	NGVTime Weighted Average (Total dust)	5 mg/m3	SE AFS (2018-02-19)

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

Substance name	End Use	Exposure routes	Potential health effects	Value
White mineral oil (petroleum)	Workers	Inhalation	Long-term systemic effects	164,56 mg/m3
	Workers	Skin contact	Long-term systemic effects	217,05 mg/kg
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified	Workers	Inhalation	Long-term systemic effects	2,73 mg/m3
	Workers	Skin contact	Long-term systemic effects	0,97 mg/kg
1,3,4-Thiadiazolidine-2,5-dithione, reaction products with hydrogen peroxide	Workers	Inhalation		4,408 mg/m3

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version	Revision Date:	Date of last issue: 2022-06-20	Print Date: 2023-
1.9	2023-05-16	Date of first issue: 2015-06-17	05-16

and tert-dodecanethiol				
	Workers	Dermal		6,25 mg/kg bw/day

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

Substance name	Environmental Compartment	Value
bis(2-ethylhexyl) sebacate	Soil	0,865 mg/kg
Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified	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
	Fresh water sediment	380,62 mg/kg
	Marine sediment	38,06 mg/kg
	Sewage treatment plant	8000 mg/l
	Soil	308,98 mg/kg

8.2 Exposure controls

Engineering measures

none

Personal protective equipment

Eye/face 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.

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

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 - SE
(Commission Regulation (EU) 2020/878)



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: paste
Colour	: yellow
Odour	: characteristic
Odour Threshold	: No data available
Melting point/range	: No data available
Boiling point/boiling range	: 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
Flash point	: Not applicable
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
pH	: Not applicable substance/mixture is non-soluble (in water)
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 - SE
(Commission Regulation (EU) 2020/878)



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

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 ³ (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.
--------------------	---	--

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

10.6 Hazardous decomposition products

No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Product:

Acute oral toxicity : Remarks: Harmful if swallowed.
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
Acute dermal toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

White mineral oil (petroleum):

Acute oral toxicity : LD50 (Rat): > 5.000 mg/kg
Method: OECD Test Guideline 401
GLP: yes
Acute inhalation toxicity : LC50 (Rat): > 5 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): > 2.000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Assessment: The substance or mixture has no acute dermal toxicity

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified:

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

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

lithium 12-hydroxystearate:

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

Acute dermal toxicity : LD50 (Rabbit): > 3.000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

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
Result : No skin irritation

White mineral oil (petroleum):

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

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified:

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

lithium 12-hydroxystearate:

Assessment : No skin irritation
Method : OECD Test Guideline 439
Result : No skin irritation

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version	Revision Date:	Date of last issue: 2022-06-20	Print Date: 2023-
1.9	2023-05-16	Date of first issue: 2015-06-17	05-16

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
Result	:	No eye irritation

White mineral oil (petroleum):

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

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified:

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

lithium 12-hydroxystearate:

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:

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

Species	:	Guinea pig
Assessment	:	Does not cause skin sensitisation.
Result	:	Does not cause skin sensitisation.

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

White mineral oil (petroleum):

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

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified:

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

lithium 12-hydroxystearate:

Exposure routes	: Dermal
Species	: Mouse
Method	: OECD Test Guideline 429
Result	: negative

Germ cell mutagenicity

Product:

Genotoxicity in vitro	: Remarks: No data available
Genotoxicity in vivo	: Remarks: No data available

Components:

White mineral oil (petroleum):

Genotoxicity in vitro	: Test Type: Ames test Method: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Result: negative GLP: yes
Germ cell mutagenicity-Assessment	: Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified:

Genotoxicity in vitro	: Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative
-----------------------	---

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

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

Carcinogenicity

Product:

Remarks : No data available

Components:

White mineral oil (petroleum):

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

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified:

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:

White mineral oil (petroleum):

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

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified:

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

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023- 05-16
----------------	------------------------------	---	----------------------------

STOT - single exposure

Product:

Remarks : No data available

Components:

White mineral oil (petroleum):

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

STOT - repeated exposure

Product:

Remarks : No data available

Components:

White mineral oil (petroleum):

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:

White mineral oil (petroleum):

NOAEL : 1.800 mg/kg
Exposure time : 90 d

Aspiration toxicity

Product:

This information is not available.

Components:

White mineral oil (petroleum):

No aspiration toxicity classification

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified:

No aspiration toxicity classification

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

11.2 Information on other hazards

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.

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

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

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (microalgae)): > 100 mg/l
Exposure time: 72 h

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023- 05-16
----------------	------------------------------	---	----------------------------

Toxicity to microorganisms : EC50 (*Pseudomonas putida*): > 8.000 mg/l
Exposure time: 16 h

White mineral oil (petroleum):

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other : EC50 (*Daphnia* (water flea)): > 100 mg/l
aquatic invertebrates
Exposure time: 48 h
Test Type: Immobilization
Method: OECD Test Guideline 202

Toxicity to daphnia and other : NOEC: >= 1.000 mg/l
aquatic invertebrates
(Chronic toxicity)
Exposure time: 21 d
Species: *Daphnia magna* (Water flea)

Distillates (petroleum), solvent-dewaxed heavy paraffinic; 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 : EC50 (*Daphnia magna* (Water flea)): > 10.000 mg/l
aquatic invertebrates
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

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

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

lithium 12-hydroxystearate:

Toxicity to fish : LC50 (*Oncorhynchus mykiss* (rainbow trout)): > 100 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other : EC50 (*Daphnia magna* (Water flea)): > 100 mg/l
aquatic invertebrates
Exposure time: 48 h

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 160 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 160 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

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 : Result: Not rapidly biodegradable
Biodegradation: 0 %
Exposure time: 28 d

White mineral oil (petroleum):

Biodegradability : Test Type: Primary biodegradation
Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: 31 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Distillates (petroleum), solvent-dewaxed heavy paraffinic; Baseoil — unspecified:

Biodegradability : Test Type: aerobic
Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: 31 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes

lithium 12-hydroxystearate:

Biodegradability : Test Type: Primary biodegradation
Inoculum: activated sludge

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

Result: rapidly biodegradable
Biodegradation: 74,7 %
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:

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

Bioaccumulation : Bioconcentration factor (BCF): 3,16

Partition coefficient: n-octanol/water : log Pow: 8

White mineral oil (petroleum):

Partition coefficient: n-octanol/water : Pow: > 6

lithium 12-hydroxystearate:

Partition coefficient: n-octanol/water : log Pow: 2,6

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.

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023-05-16
----------------	------------------------------	---	------------------------

Components:

White mineral oil (petroleum):

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.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water courses or the soil.

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

Contaminated packaging : 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

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023- 05-16
----------------	------------------------------	---	----------------------------

SECTION 14: Transport information

14.1 UN number or ID number

ADR	:	Not regulated as a dangerous good
RID	:	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
RID	:	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
RID	:	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
RID	:	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

14.5 Environmental hazards

ADR	:	Not regulated as a dangerous good
RID	:	Not regulated as a dangerous good
IMDG	:	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 - SE
(Commission Regulation (EU) 2020/878)



ISOFLEX LDS 18 SPECIAL A

Version 1.9	Revision Date: 2023-05-16	Date of last issue: 2022-06-20 Date of first issue: 2015-06-17	Print Date: 2023- 05-16
----------------	------------------------------	---	----------------------------

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, mixtures and articles (Annex XVII) | : | Conditions of restriction for the following entries should be considered:
Number on list 75 |
| 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). |
| 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 |
| Volatile organic compounds | : | Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Not applicable |

Other regulations:

Take note of the Swedish Work Environment Authority regulations on Chemical Hazards in the Working Environment (AFS 2011:19)

Hygiene limits (AFS 2018:1), provisions - Occupational Safety and Health Administration's provisions on hygiene limits and general advice on the application of the provisions.

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version	Revision Date:	Date of last issue: 2022-06-20	Print Date: 2023-
1.9	2023-05-16	Date of first issue: 2015-06-17	05-16

15.2 Chemical safety assessment

This information is not available.

SECTION 16: Other information

Full text of H-Statements

H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Note L : The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide 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), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

SE AFS : Sweden. Occupational Exposure Limit Values

SE AFS / NGV : Time Weighted Average

SE AFS / KGV : Short Term Exposure Limit

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - 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

SAFETY DATA SHEET

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



ISOFLEX LDS 18 SPECIAL A

Version	Revision Date:	Date of last issue: 2022-06-20	Print Date: 2023-
1.9	2023-05-16	Date of first issue: 2015-06-17	05-16

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; TECI - Thailand Existing Chemicals 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

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 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.