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Safety data sheet according to Regulation (EC) No 1907/2006, Annex II

Revision date / version: 15.01.2019 / 0020

Replacing version dated / version: 20.09.2017 / 0019

Valid from: 15.01.2019 PDF print date: 16.01.2019 ProLine Kuehler Reiniger 1 L

Art.: 5189

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

1.1 Product identifier

ProLine Kuehler Reiniger 1 L

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

Sector of use [SU]:

SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites

SU21 - Consumer uses: Private households (=general public = consumers)

SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Chemical product category [PC]:

PC35 - Washing and cleaning products

Process category [PROC]:

PROC 1 - Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC 2 - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC 8a - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC 8b - Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC 9 - Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

Article Categories [AC]:

AC99 - Not required.

Environmental Release Category [ERC]:

ERC 4 - Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

ERC 7 - Use of functional fluid at industrial site

ERC 9a - Widespread use of functional fluid (indoor)

ERC 9b - Widespread use of functional fluid (outdoor)

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

LIQUI MOLY GmbH, Jerg-Wieland-Str. 4, 89081 Ulm-Lehr, Germany Phone: (+49) 0731-1420-0, Fax: (+49) 0731-1420-88

Qualified person's e-mail address: info@chemical-check.de, k.schnurbusch@chemical-check.de Please DO NOT use for requesting Safety Data Sheets.

1.4 Emergency telephone number

Emergency information services / official advisory body:

Telephone number of the company in case of emergencies:

+49 (0) 700 / 24 112 112 (LMR)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture Classification according to Regulation (EC) 1272/2008 (CLP)

Hazard class

Hazard category

Hazard statement



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Eye Dam.

H318-Causes serious eye damage.

2.2 Label elements Labeling according to Regulation (EC) 1272/2008 (CLP)



Danger

H318-Causes serious eye damage.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.

P280-Wear eye protection / face protection.

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

EUH208-Contains Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1). May produce an allergic reaction.

Isotridecanol, ethoxylated

Sulfonic acids, C14-17-sec-alkane, sodium salts

2.3 Other hazards

The mixture does not contain any vPvB substance (vPvB = very persistent, very bioaccumulative) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

The mixture does not contain any PBT substance (PBT = persistent, bioaccumulative, toxic) or is not included under XIII of the regulation (EC) 1907/2006 (< 0,1 %).

SECTION 3: Composition/information on ingredients

3.1 Substance

n.a. 3.2 Mixture

Isotridecanol, ethoxylated	
Registration number (REACH)	
Index	
EINECS, ELINCS, NLP	
CAS	9043-30-5
content %	5-<10
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302
	Eye Dam. 1, H318

Sulfonic acids, C14-17-sec-alkane, sodium salts	Substance with specific conc. limit(s) acc. to REACh-
	registration
Registration number (REACH)	01-2119489924-20-XXXX
Index	
EINECS, ELINCS, NLP	307-055-2
CAS	97489-15-1
content %	1-<5



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Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Skin Irrit. 2. H315
	Eye Dam. 1, H318
	Aquatic Chronic 3, H412

Morpholine	
Registration number (REACH)	01-2119496057-30-XXXX
Index	613-028-00-9
EINECS, ELINCS, NLP	203-815-1
CAS	110-91-8
content %	0,1-<0,25
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226
	Acute Tox. 4, H302
	Acute Tox. 3, H311
	Acute Tox. 3, H331
	Skin Corr. 1A, H314
	Eye Dam. 1, H318

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and	
2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)	
Registration number (REACH)	
Index	613-167-00-5
EINECS, ELINCS, NLP	
CAS	55965-84-9
content %	0,001-<0,0015
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 3, H301
	Acute Tox. 2, H310
	Skin Corr. 1C, H314
	Skin Sens. 1A, H317
	Eye Dam. 1, H318
	Acute Tox. 2, H330
	Aquatic Acute 1, H400 (M=100)
	Aquatic Chronic 1, H410 (M=100)

Impurities, test data and additional information may have been taken into account in classifying and labelling the product.

For the text of the H-phrases and classification codes (GHS/CLP), see Section 16.

The substances named in this section are given with their actual, appropriate classification!

For substances that are listed in appendix VI, table 3.1 of the regulation (EC) no. 1272/2008 (CLP regulation) this means that all notes that may be given here for the named classification have been taken into account.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aiders should ensure they are protected!

Never pour anything into the mouth of an unconscious person!

Inhalation

Supply person with fresh air and consult doctor according to symptoms.

Skin contact

Remove polluted, soaked clothing immediately, wash thoroughly with plenty of water and soap, in case of irritation of the skin (flare), consult a doctor.

Eye contact

Remove contact lenses.

Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.

Protect uninjured eye.

Follow-up examination by an ophthalmologist

Ingestion

Rinse the mouth thoroughly with water.

Do not induce vomiting - give copious water to drink. Consult doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

If applicable delayed symptoms and effects can be found in section 11 and the absorption route in section 4.1.



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In certain cases, the symptoms of poisoning may only appear after an extended period / after several hours.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Adapt to the nature and extent of fire.

Unsuitable extinguishing media

High volume water jet

5.2 Special hazards arising from the substance or mixture

In case of fire the following can develop:

Oxides of carbon

Oxides of nitrogen

Oxides of sulphur

Toxic gases

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes.

Protective respirator with independent air supply.

According to size of fire

Full protection, if necessary.

Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure sufficient supply of air.

Avoid contact with eyes or skin.

If applicable, caution - risk of slipping.

6.2 Environmental precautions

If leakage occurs, dam up.

Resolve leaks if this possible without risk.

Prevent from entering drainage system.

Prevent surface and ground-water infiltration, as well as ground penetration.

If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

Soak up with absorbent material (e.g. universal binding agent, sand, diatomaceous earth) and dispose of according to Section 13.

6.4 Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

SECTION 7: Handling and storage

In addition to information given in this section, relevant information can also be found in section 8 and 6.1.

7.1 Precautions for safe handling

7.1.1 General recommendations

Ensure good ventilation.

Avoid contact with eyes or skin.

Eating, drinking, smoking, as well as food-storage, is prohibited in work-room.

Observe directions on label and instructions for use.

Use working methods according to operating instructions.

7.1.2 Notes on general hygiene measures at the workplace

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

7.2 Conditions for safe storage, including any incompatibilities



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Keep out of access to unauthorised individuals. Store product closed and only in original packing. Not to be stored in gangways or stair wells. Store in a well ventilated place.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

®	Chemical Name	Morpholine					Content %:0,1- <0,25
W	/EL-TWA: 10 ppm (36 mg/m3) (V	/EL, EU)	WEL-STEL:	20 ppm (72 mg/m	3) (WEL, EU)		
M	Monitoring procedures:						
В	MGV:				Other information:	Sk	

Area of application	Exposure route /	Effect on health	Descriptor	Value	Unit	Note
	Environmental					
	compartment					
	Environment - freshwater		PNEC	0,04	mg/l	
	Environment - marine		PNEC	0,004	mg/l	
	Environment - water,		PNEC	0,06	mg/l	
	sporadic (intermittent)					
	release					
	Environment - sediment,		PNEC	9,4	mg/kg dw	
	freshwater					
	Environment - sediment,		PNEC	0,94	mg/kg dw	
	marine					
	Environment - soil		PNEC	9,4	mg/kg dw	
	Environment - sewage		PNEC	600	mg/l	
	treatment plant					
	Environment - oral (animal		PNEC	53,3	mg/kg feed	
	feed)					
	Environment - periodic		DNEL	0	mg/kg	
	release					
Consumer	Human - dermal	Long term, systemic	DNEL	3,57	mg/kg bw/d	
		effects				
Consumer	Human - inhalation	Long term, systemic	DNEL	12,4	mg/m3	
		effects				
Consumer	Human - oral	Long term, systemic	DNEL	7,1	mg/kg bw/d	
		effects				
Consumer	Human - dermal	Short term, local	DNEL	2,8	mg/cm2	
		effects				
Consumer	Human - dermal	Long term, local effects	DNEL	2,8	mg/cm2	
Workers / employees	Human - dermal	Short term, local	DNEL	2,8	mg/cm2	
		effects				
Workers / employees	Human - dermal	Long term, systemic	DNEL	5	mg/kg bw/d	
		effects				
Workers / employees	Human - inhalation	Long term, systemic	DNEL	35	mg/m3	
		effects				
Workers / employees	Human - dermal	Long term, local effects	DNEL	2,8	mg/cm2	

Morpholine									
Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note			
	Environment - freshwater		PNEC	0,1	mg/l				



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	Environment - marine		PNEC	0,01	mg/l	
	Environment - sediment, freshwater		PNEC	1,49	mg/kg	
	Environment - sediment, marine		PNEC	0,149	mg/kg	
	Environment - sporadic (intermittent) release		PNEC	0,28	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
Consumer	Human - oral	Short term, systemic effects	DNEL	38	mg/kg bw/d	
Consumer	Human - inhalation	Short term, local effects	DNEL	18	mg/m3	
Consumer	Human - dermal	Long term, systemic effects	DNEL	0,52	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	45	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	6,3	mg/kg bw/day	
Consumer	Human - inhalation	Long term, local effects	DNEL	35,8	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	72	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	1,04	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	91	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	36	mg/m3	

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany).

(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period).

(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). (10) = Short-term exposure limit value in relation to a reference period of 1 minute (2017/164/EU). | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Sen = Capable of causing occupational asthma. Sk = Can be absorbed through skin. Carc = Capable of causing cancer and/or heritable genetic damage.

** = The exposure limit for this substance is repealed through the TRGS 900 (Germany) of January 2006 with the goal of revision.

8.2 Exposure controls

8.2.1 Appropriate engineering controls

Ensure good ventilation. This can be achieved by local suction or general air extraction.

If this is insufficient to maintain the concentration under the WEL or AGW values, suitable breathing protection should be worn.

Applies only if maximum permissible exposure values are listed here.

Suitable assessment methods for reviewing the effectiveness of protection measures adopted include metrological and non-metrological investigative techniques.

These are specified by e.g. BS EN 14042.

BS EN 14042 "Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents".

8.2.2 Individual protection measures, such as personal protective equipment

General hygiene measures for the handling of chemicals are applicable.

Wash hands before breaks and at end of work.

Keep away from food, drink and animal feedingstuffs.

Remove contaminated clothing and protective equipment before entering areas in which food is consumed.

Eye/face protection:

Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection: Rubber gloves (EN 374). Protective nitrile gloves (EN 374) Minimum layer thickness in mm:



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0,4

Permeation time (penetration time) in minutes:

> 480

The breakthrough times determined in accordance with EN 16523-1 were not obtained under practical conditions.

The recommended maximum wearing time is 50% of breakthrough time.

Protective hand cream recommended.

Skin protection - Other:

Protective working garments (e.g. safety shoes EN ISO 20345, long-sleeved protective working garments).

Respiratory protection:

Normally not necessary.

Thermal hazards:

Not applicable

Additional information on hand protection - No tests have been performed.

In the case of mixtures, the selection has been made according to the knowledge available and the information about the contents. Selection of materials derived from glove manufacturer's indications.

Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation into account. Selection of a suitable glove depends not only on the material but also on other quality characteristics and varies from manufacturer to manufacturer.

In the case of mixtures, the resistance of glove materials cannot be predicted and must therefore be tested before use.

The exact breakthrough time of the glove material can be requested from the protective glove manufacturer and must be observed.

8.2.3 Environmental exposure controls

No information available at present.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:

Colour:

Odour:

Characteristic

Odour threshold:

Liquid

Light yellow

Characteristic

Not determined

pH-value: ~8,7

Melting point/freezing point: Not determined Initial boiling point and boiling range: Not determined >63 °C Flash point: Not determined Evaporation rate: Flammability (solid, gas): Not determined Lower explosive limit: Not determined Upper explosive limit: Not determined Vapour pressure: Not determined Vapour density (air = 1): Not determined Density: 1,029 g/ml (20°C) Bulk density: Not determined Solubility(ies): Not determined

Water solubility:

Partition coefficient (n-octanol/water):

Auto-ignition temperature:

Decomposition temperature:

Viscosity:

Soluble

Not determined

Not determined

Not determined

Not determined

Explosive properties: Not determined Oxidising properties: No

9.2 Other information

Miscibility:

Fat solubility / solvent:

Conductivity:

Not determined

Not determined

Surface tension:

Not determined

Not determined

Not determined

Not determined

Not determined



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SECTION 10: Stability and reactivity

10.1 Reactivity

The product has not been tested.

10.2 Chemical stability

Stable with proper storage and handling.

10.3 Possibility of hazardous reactions

No dangerous reactions are known.

10.4 Conditions to avoid

See also section 7.

None known

10.5 Incompatible materials

See also section 7.
Avoid contact with strong oxidizing agents.

10.6 Hazardous decomposition products

See also section 5.2

No decomposition when used as directed.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Possibly more information on health effects, see Section 2.1 (classification).

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Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by dermal route:	ATE	>2000	mg/kg			calculated value
Acute toxicity, by inhalation:	ATE	>20	mg/l/4h			calculated value,
						Vapours
Acute toxicity, by inhalation:	ATE	>5	mg/l/4h			calculated value,
						Aerosol
Skin corrosion/irritation:						n.d.a.
Serious eye damage/irritation:						n.d.a.
Respiratory or skin sensitisation:						n.d.a.
Germ cell mutagenicity:						n.d.a.
Carcinogenicity:						n.d.a.
Reproductive toxicity:						n.d.a.
Specific target organ toxicity -						n.d.a.
single exposure (STOT-SE):						
Specific target organ toxicity -						n.d.a.
repeated exposure (STOT-RE):						
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Isotridecanol, ethoxylated Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
					restilletilou	Notes
Acute toxicity, by oral route:	LD50	500-2000	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute	
					Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit		Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Intensively irritant
, ,					Irritation/Corrosion)	
Respiratory or skin				Guinea pig		No (skin
sensitisation:						contact),
						References
Germ cell mutagenicity:					(Ames-Test)	Negative,
						References



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Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>500-2000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Mouse		Analogous conclusion
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Skin Irrit. 2
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Dam. 1
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:						No indications of such an effect.
Carcinogenicity:				Rat		No indications of such an effect.
Reproductive toxicity:		200	mg/kg	Rat		No indications of such an effect.
Aspiration hazard:						No

Morpholine	Endneint	Value	Unit	Organism	Test method	Notes
Toxicity / effect	Endpoint			Organism	rest method	Notes
Acute toxicity, by oral route:	LD50	1910	mg/kg	Rat	0505 400 (4	
Acute toxicity, by dermal route:	LD50	500	mg/kg		OECD 402 (Acute	
					Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	8	mg/l/4h	Rat		Vapours, Does
						not conform with
						EU classification.
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute	Corrosive
					Dermal	
					Irritation/Corrosion)	
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye	Corrosive
					Irritation/Corrosion)	
Respiratory or skin				Guinea pig	IUCLID Chem. Data	Not sensitizising
sensitisation:					Sheet (ESIS)	
Germ cell mutagenicity:					OECD 471 (Bacterial	Negative
,					Reverse Mutation Test)	
Germ cell mutagenicity:					OECD 479 (Genetic	Negative
					Toxicology - In Vitro	
					Sister Chromatid	
					Exchange assay in	
					Mammalian Cells)	
Germ cell mutagenicity:					OECD 482 (Gen. Tox	Negative
ű ,					DNA Damage and	
					Repair, Unscheduled	
					DNA Synthesis in	
					Mammalian Cells In	
					Vitro)	
Carcinogenicity:				Rat	OECD 453 (Combined	Negative
Caroniogornony.				- Tut	Chronic	rioganio
					Toxicity/Carcinogenicity	
					Studies)	
Specific target organ toxicity -	NOEC	36			OECD 452 (Chronic	Vapours
repeated exposure (STOT-RE):	NOLO	50			Toxicity Studies)	Vapouis



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Symptoms:		respiratory
		distress, burning
		of the
		membranes of
		the nose and
		throat,
		heart/circulatory
		disorders,
		cornea opacity,
		coughing,
		mucous
		membrane
		irritation, pain in
		chest, nausea
		and vomiting.

Mixture of: 5-chloro-2-methyl-2H-isothiazol-3-one [EC No 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC No 220-239-6] (3:1)						
Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	64-66	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	Acute Tox. 3
Acute toxicity, by dermal route:	LD50	87,12	mg/kg	Rabbit		Acute Tox. 2
Acute toxicity, by inhalation:	LC50	0,33	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Aerosol, Dust, Acute Tox. 2
Acute toxicity, by inhalation:	LC50	0,81	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Vapours, Acute Tox. 2
Skin corrosion/irritation:				Rabbit		Skin Corr. 1C
Serious eye damage/irritation:				Rabbit		Eye Dam. 1
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Skin Sens. 1A
Symptoms:						diarrhoea, mucous membrane irritation, watering eyes

SECTION 12: Ecological information

Possibly more information on environmental effects, see Section 2.1 (classification).

ProLine Kuehler Reiniger 1 L Art.: 5189 Toxicity / effect Endpoint Time Value Unit Organism Test method Notes 12.1. Toxicity to fish:
12.1. Toxicity to daphnia: n.d.a. n.d.a. 12.1. Toxicity to algae:



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12.2. Persistence and degradability:	The surfactant(s) contained in this
	mixture
	complies(comply)
	with the
	biodegradability
	criteria as laid
	down in
	Regulation (EC)
	No.648/2004 on
	detergents.
	Supporting
	documents that
	confirm this are
	kept available for
	the competent
	authorities and
	will be provided
	by a detergent manufacturer
	upon inquiry or
	demand.
12.3. Bioaccumulative	n.d.a.
potential:	Thurst I
12.4. Mobility in soil:	n.d.a.
12.5. Results of PBT	n.d.a.
and vPvB assessment	
12.6. Other adverse	n.d.a.
effects:	
Other information:	According to the
	recipe, contains
	no AOX.

Isotridecanol, ethoxylate		T:	W-l	1111	0	To at we attend	N-1
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1-10	mg/l	Brachydanio rerio	OECD 203 (Fish,	
						Acute Toxicity	
						Test)	
12.1. Toxicity to fish:	LC50	96h	1 -10	mg/l	Cyprinus caprio	OECD 203 (Fish,	References
						Acute Toxicity	
						Test)	
12.1. Toxicity to daphnia:	EC50	48h	4,7	mg/l	Daphnia magna	OECD 202	
						(Daphnia sp.	
						Acute	
						Immobilisation	
						Test)	
12.1. Toxicity to algae:	EC50	72h	1 -10	mg/l	Scenedesmus	OECD 201 (Alga,	References
, ,					subspicatus	Growth Inhibition	
						Test)	
12.2. Persistence and		28d	67	%		OECD 301 B	
degradability:						(Ready	
,						Biodegradability -	
						Co2 Evolution	
						Test)	
12.2. Persistence and		28d	>60	%		OECD 301 E	
degradability:						(Ready	
						Biodegradability -	
						Modified OECD	
						Screening Test)	



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12.2. Persistence and degradability:	DOC	28d	> 70	%	OECD 301 A (Ready Biodegradability - DOC Die-Away Test)	
12.5. Results of PBT					r	n.a.
and vPvB assessment						
Other information:	DOC		600	mg/g		
Other information:	COD		1980	mg/g	DIN 38409-H41	
Water solubility:						Soluble

Sulfonic acids, C14-17-s			Value	I Imi4	Organiam	Toot mothed	Notes
Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	1 -10	mg/l	Brachydanio rerio	OECD 203 (Fish,	
						Acute Toxicity	
						Test)	
12.1. Toxicity to fish:	NOEC/NOEL	28d	0,85	mg/l	Oncorhynchus	OECD 204 (Fish,	
					mykiss	Prolonged Toxicity	
						Test - 14-Day	
						Study)	
12.1. Toxicity to daphnia:	NOEC/NOEL	22d	0,36	mg/l	Daphnia magna	OECD 202	
12.11. Toxiony to daprima.	NOLO/NOLL	220	0,00	1119/1	Baprilla magna	(Daphnia sp.	
						Acute	
						Immobilisation	
10 1 T 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		101		,,		Test)	
12.1. Toxicity to daphnia:	EC50	48h	9,81	mg/l	Daphnia magna	OECD 202	
						(Daphnia sp.	
						Acute	
						Immobilisation	
						Test)	
12.1. Toxicity to algae:	EC50	72h	>61	mg/l	Scenedesmus	OECD 201 (Alga,	
remeny to alguer			' ' '		subspicatus	Growth Inhibition	
					dasopioatas	Test)	
12.2. Persistence and		28d	96,2	%	activated sludge	OECD 304 A	Readily
		Zou	90,2	70	activated sludge		
degradability:						(Inherent	biodegradable
						Biodegradability in	
						Soil)	
12.2. Persistence and		28d	78	%		OECD 301 B	Readily
degradability:						(Ready	biodegradable
						Biodegradability -	
						Co2 Evolution	
						Test)	
12.2. Persistence and		28d	89	%	activated sludge	OECD 301 E	Readily
degradability:				,,,	activated craage	(Ready	biodegradable
acgradability.						Biodegradability -	bloacgradable
						Modified OECD	
40.0 B'						Screening Test)	N
12.3. Bioaccumulative							Not accepted
potential:							due to the log
							Pow - value.
12.5. Results of PBT							No PBT
and vPvB assessment		1					substance, No
							vPvB substance
Toxicity to bacteria:	NOEC/NOEL	16h	600	mg/l	Pseudomonas	DIN 38412 T.8	
,				J	putida	1	
Other organisms:	NOEC/NOEL	56d	470	mg/kg	Eisenia foetida	OECD 222	
caron organismo.		553		9/119	Lioonia rootida	(Earthworm	
		1				Reproduction Test	
		1				(Eisenia	
		1				fetida/Eisenia	
						andrei))	

Morpholine



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Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	179	mg/l			
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	5	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to daphnia:	EC50	48h	45	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	NOEC/NOEL	72h	31	mg/l	Pseudokirchneriell a subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EC50	72h	58	mg/l		,	
12.2. Persistence and degradability:		28d	92	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
12.2. Persistence and degradability:		26d	93	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	
12.3. Bioaccumulative potential:	BCF		<2,8			OECD 305 (Bioconcentration - Flow-Through Fish Test)	
12.3. Bioaccumulative potential:	Log Pow		-2,55			,	

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.2. Persistence and			>60	%	activated sludge	OECD 301 D	Does not
degradability:						(Ready	conform with EU
						Biodegradability -	classification.
						Closed Bottle Test)	
12.1. Toxicity to algae:	EC50	48h	0,0052	mg/l	Skeletonema	ISO 10253	
					costatum		
12.1. Toxicity to algae:	NOEC/NOEL	48h	0,00064	mg/l	Skeletonema	ISO 10253	
					costatum		
12.1. Toxicity to algae:	NOEC/NOEL	72h	0,0012	mg/l	Pseudokirchneriell	OECD 201 (Alga,	
					a subcapitata	Growth Inhibition	
						Test)	
Toxicity to bacteria:	EC50	3h	7,92	mg/l	activated sludge	OECD 209	
						(Activated Sludge,	
						Respiration	
						Inhibition Test	
						(Carbon and	
						Ammonium	
						Oxidation))	

SECTION 13: Disposal considerations

13.1 Waste treatment methods

For the substance / mixture / residual amounts

EC disposal code no.:

The waste codes are recommendations based on the scheduled use of this product. Owing to the user's specific conditions for use and disposal, other waste codes may be allocated under certain circumstances. (2014/955/EU) 07 06 01 aqueous washing liquids and mother liquors



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20 01 29 detergents containing hazardous substances

Recommendation:

Sewage disposal shall be discouraged.

Pay attention to local and national official regulations.

E.g. suitable incineration plant.E.g. dispose at suitable refuse site.

For contaminated packing material

Pay attention to local and national official regulations.

Empty container completely.

Uncontaminated packaging can be recycled.

Dispose of packaging that cannot be cleaned in the same manner as the substance.

SECTION 14: Transport information

General statements

14.1. UN number: n.a.

Transport by road/by rail (ADR/RID)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):n.a.14.4. Packing group:n.a.Classification code:n.a.LQ:n.a.

14.5. Environmental hazards: Not applicable

Tunnel restriction code:

Transport by sea (IMDG-code)

14.2. UN proper shipping name:

14.3. Transport hazard class(es):n.a.14.4. Packing group:n.a.Marine Pollutant:n.a

14.5. Environmental hazards: Not applicable

Transport by air (IATA)

14.2. UN proper shipping name: 14.3. Transport hazard class(es):

14.3. Transport hazard class(es):

14.4. Packing group:

n.a.

14.5. Environmental hazards: Not applicable

14.6. Special precautions for user

Unless specified otherwise, general measures for safe transport must be followed.

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

Non-dangerous material according to Transport Regulations.

SECTION 15: Regulatory information

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

Observe restrictions:

Comply with national regulations/laws governing maternity protection (national implementation of the Directive 92/85/EEC)! Comply with trade association/occupational health regulations.

Directive 2010/75/EU (VOC):

0,10144 %

REGULATION (EC) No 648/2004

5 % or over but less than 15 % non-ionic surfactants

less than 5 %

anionic surfactants

METHYLCHLOROISOTHIAZOLINONE/ METHYLISOTHIAZOLINONE

Treated goods as per Regulation (EU) No. 528/2012 must display specific information on the label. Please note Article 58 paragraph (3) subparagraph 2 of Regulation (EU) No. 528/2012.



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Approval of the biocidal active substance may mean that special conditions are required for marketing the treated goods.

These are indicated in the approval of the active substance.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections:

2, 3, 4, 8, 9, 11, 12, 15

These details refer to the product as it is delivered.

Employee instruction/training in handling hazardous materials is required.

Classification and processes used to derive the classification of the mixture in accordance with the ordinance (EG) 1272/2008 (CLP):

Classification in accordance with regulation	Evaluation method used
(EC) No. 1272/2008 (CLP)	
Eye Dam. 1, H318	Classification according to calculation procedure.

The following phrases represent the posted Hazard Class and Risk Category Code (GHS/CLP) of the product and the constituents (specified in Section 2 and 3).

H330 Fatal if inhaled.

H310 Fatal in contact with skin.

H314 Causes severe skin burns and eye damage.

H314 Causes severe skin burns and eye damage.

H226 Flammable liquid and vapour.

H317 May cause an allergic skin reaction.

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H311 Toxic in contact with skin.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H331 Toxic if inhaled.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

Eye Dam. — Serious eye damage

Acute Tox. — Acute toxicity - oral

Skin Irrit. — Skin irritation

Aquatic Chronic — Hazardous to the aquatic environment - chronic

Flam. Liq. — Flammable liquid Acute Tox. — Acute toxicity - dermal

Acute Tox. — Acute toxicity - inhalation

Skin Corr. — Skin corrosion

Skin Sens. — Skin sensitization

Aquatic Acute — Hazardous to the aquatic environment - acute

Any abbreviations and acronyms used in this document:

AC **Article Categories**

acc., acc, to according, according to

ACGIH American Conference of Governmental Industrial Hygienists

Accord européen relatif au transport international des marchandises Dangereuses par Route (= European Agreement concerning the International Carriage of Dangerous Goods by Road)

AOEL Acceptable Operator Exposure Level

AOX Adsorbable organic halogen compounds

approx. approximately

Art., Art. no. Article number



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Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP) ATE

BAM Bundesanstalt für Materialforschung und -prüfung (Federal Institute for Materials Research and Testing, Germany) BAuA Bundesanstalt für Arbeitsschutz und Arbeitsmedizin (= Federal Institute for Occupational Health and Safety, Germany)

BCF Bioconcentration factor

BGV Berufsgenossenschaftliche Vorschrift (= Accident Prevention Regulation)

BHT Butylhydroxytoluol (= 2,6-Di-t-butyl-4-methyl-phenol) BMGV Biological monitoring guidance value (EH40, UK)

BOD Biochemical oxygen demand

BSEF Bromine Science and Environmental Forum

body weight bw

CAS Chemical Abstracts Service

Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids CEC

CESIO Comité Européen des Agents de Surface et de leurs Intermédiaires Organiques

CIPAC Collaborative International Pesticides Analytical Council

CLP Classification, Labelling and Packaging (REGULATION (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures)

CMR carcinogenic, mutagenic, reproductive toxic

COD Chemical oxygen demand

CTFA Cosmetic, Toiletry, and Fragrance Association

DMEL Derived Minimum Effect Level DNEL Derived No Effect Level DOC Dissolved organic carbon

DT50 Dwell Time - 50% reduction of start concentration

DVS Deutscher Verband für Schweißen und verwandte Verfahren e.V. (= German Association for Welding and Allied Processes)

dw drv weight

for example (abbreviation of Latin 'exempli gratia'), for instance e.g.

ΕČ **European Community** ECHA European Chemicals Agency EEA European Economic Area EEC **European Economic Community**

EINECS European Inventory of Existing Commercial Chemical Substances

ELINCS European List of Notified Chemical Substances

ΕN European Norms

United States Environmental Protection Agency (United States of America) **EPA**

ERC Environmental Release Categories

ES Exposure scenario

et cetera etc. EU European Union

EWC European Waste Catalogue

Fax number Fax. general gen.

GHS Globally Harmonized System of Classification and Labelling of Chemicals

GWP Global warming potential

HET-CAM Hen's Egg Test - Chorionallantoic Membrane

HGWP Halocarbon Global Warming Potential International Agency for Research on Cancer IARC IATA International Air Transport Association

IBC Intermediate Bulk Container International Bulk Chemical (Code) IBC (Code)

IC Inhibitory concentration IMDG-code International Maritime Code for Dangerous Goods

including, inclusive incl.

IUCLID International Uniform Chemical Information Database

I C lethal concentration

LC50 lethal concentration 50 percent kill LCLo lowest published lethal concentration

Lethal Dose of a chemical ΙD LD50 Lethal Dose, 50% kill LDLo Lethal Dose Low

LOAEL Lowest Observed Adverse Effect Level LOEC Lowest Observed Effect Concentration

LOEL Lowest Observed Effect Level

Limited Quantities



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MARPOL International Convention for the Prevention of Marine Pollution from Ships

n.a. not applicable n.av. not available n.c. not checked n.d.a. no data available

NIOSH National Institute of Occupational Safety and Health (United States of America)

NOAECNo Observed Adverse Effective Concentration

NOAEL No Observed Adverse Effect Level NOEC No Observed Effect Concentration NOEL No Observed Effect Level

ODP Ozone Depletion Potential

OECD Organisation for Economic Co-operation and Development

org. organic

PAH polycyclic aromatic hydrocarbon
PBT persistent, bioaccumulative and toxic

PC Chemical product category

PE Polyethylene

PNEC Predicted No Effect Concentration POCP Photochemical ozone creation potential

ppm parts per million PROC Process category PTFE Polytetrafluorethylene

REACHRegistration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006 concerning the Registration,

Evaluation, Authorisation and Restriction of Chemicals)

REACH-IT List-No. 9xx-xxx-x No. is automatically assigned, e.g. to pre-registrations without a CAS No. or other numerical identifier. List Numbers do not have any legal significance, rather they are purely technical identifiers for processing a submission via REACH-IT.

RID Règlement concernant le transport International ferroviaire de marchandises Dangereuses (= Regulation concerning the International Carriage of Dangerous Goods by Rail)

SADT Self-Accelerating Decomposition Temperature

SAR Structure Activity Relationship

SU Sector of use

SVHC Substances of Very High Concern

Tel. Telephone

ThOD Theoretical oxygen demand TOC Total organic carbon

TRGS Technische Regeln für Gefahrstoffe (=Technical Regulations for Hazardous Substances)
UN RTDG United Nations Recommendations on the Transport of Dangerous Goods

VbF Verordnung über brennbare Flüssigkeiten (= Regulation for flammable liquids (Austria))

VOC Volatile organic compounds

vPvB very persistent and very bioaccumulative

WEL-TWA, WEL-STEL WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period), WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period) (EH40, UK).

WHO World Health Organization

wwt wet weight

The statements made here should describe the product with regard to the necessary safety precautions - they are not meant to guarantee definite characteristics - but they are based on our present up-to-date knowledge. No responsibility.

These statements were made by:

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