FROSCH UNIV.CLEANER LAVNDER EL 1L P NET

WM 0715331 **Order number: 0715331**

Version 6.1 Revision Date 04.10.2020 Print Date 07.04.2021

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

1.1 Product identifier

Trade name : FROSCH UNIV.CLEANER LAVNDER EL 1L P NET
Identification number : 61174

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

Use of the Substance/Mixture : Cleaning agent

1.3 Details of the supplier of the safety data sheet

Company : Erdal GmbH
Neualmerstrasse 13
5400 Hallein
Telephone : +436245801110
Telefax : +43624580111350
E-mail address : Produktsicherheit@werner-mertz.com
Responsible/issuing person
Contact person : Product development / product safety

1.4 Emergency telephone number

112

+43(0)1-4064343

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture.

2.3 Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Aqueous surfactant solution.

Hazardous components

Chemical name	CAS-No. EC-No. Registration number	Classification	Concentration (% w/w)

Alcohols, C12-14, ethoxylated, sulfates, sodium salts	68891-38-3 01-2119488639-16	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 3; H412 SCL 5 - < 10 % 2; H319 >= 10,0 % 1; H318	>= 2,5 - < 3
1-phenoxypropan-2-ol	770-35-4 212-222-7 01-2119486566-23	Eye Irrit. 2; H319	>= 2 - < 5
Rapeseed oil monoethanolamide, ethoxylated (3-4 EO)	85536-23-8 932-164-2 01-2119565130-50	Skin Irrit. 2; H315 Aquatic Chronic 3; H412	>= 1 - < 2

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice : No hazards which require special first aid measures.

If inhaled : Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.
If symptoms persist, call a physician.

In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.

In case of eye contact : Protect unharmed eye.
If easy to do, remove contact lens, if worn.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

If swallowed : Clean mouth with water and drink afterwards plenty of water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

Risks : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : For specialist advice physicians should contact the Poisons Information Service.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting	:	Do not allow run-off from fire fighting to enter drains or water courses.
Hazardous combustion products	:	No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions	:	Try to prevent the material from entering drains or water courses.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up	:	Sweep up and shovel. Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8., Treat recovered material as described in the section "Disposal considerations"., Refer to section 15 for specific national regulation.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	For personal protection see section 8. No special handling advice required.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Hygiene measures	:	Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container.
Advice on common storage	:	No special restrictions on storage with other products.
Other data	:	No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s)	:	Cleaning agent

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

DNEL

Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3:	:	End Use: Workers Exposure routes: Skin contact Potential health effects: Long-term systemic effects Value: 2750 mg/kg bw/day End Use: Workers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 175 mg/m3 End Use: Consumers Exposure routes: Skin contact Potential health effects: Long-term systemic effects Value: 1650 mg/kg bw/day End Use: Consumers Exposure routes: Inhalation Potential health effects: Long-term systemic effects Value: 52 mg/m3 End Use: Consumers Exposure routes: Ingestion Potential health effects: Long-term systemic effects Value: 15 mg/kg End Use: Workers Exposure routes: Skin contact Potential health effects: Long-term local effects Value: 0,132 mg/cm2 End Use: Consumers Exposure routes: Skin contact Potential health effects: Long-term local effects Value: 0,079 mg/cm2
1-phenoxypropan-2-ol	:	End Use: Workers

770-35-4:

Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 42 mg/kg bw/day

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 25,7 mg/m3

End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 21 mg/kg bw/day

End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Long-term systemic effects
Value: 3,65 mg/kg bw/day

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long-term exposure, Systemic effects
Value: 12,7 mg/m3

Rapeseed oil monoethanolamide, ethoxylated (3-4 EO) 85536-23-8: :

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Acute systemic effects
Value: 40 mg/kg

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 0,5 mg/kg

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 1,76 mg/m3

End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Acute systemic effects
Value: 20 mg/kg

End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Acute systemic effects
Value: 20 mg/kg

End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 0,25 mg/kg

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 0,88 mg/m3

End Use: Consumers
Exposure routes: Ingestion

Potential health effects: Long-term systemic effects
Value: 0,25 mg/kg

PNEC

Alcohols, C12-14, ethoxylated, sulfates, sodium salts 68891-38-3: : Fresh water
Value: 0,24 mg/l

Marine water
Value: 0,024 mg/l

Fresh water sediment
Value: 0,9168 mg/kg

Marine sediment
Value: 0,09168 mg/kg

Soil
Value: 7,5 mg/kg dry weight (d.w.)

STP
Value: 10000 mg/l

intermittent release
Value: 0,071 mg/l

Fresh water sediment
Value: 5,45 mg/kg

Marine sediment
Value: 0,545 mg/kg

1-phenoxypropan-2-ol 770-35-4: : Fresh water
Value: 0,1 mg/l

Marine water
Value: 0,01 mg/l

Fresh water sediment
Value: 0,38 mg/kg

Marine sediment
Value: 0,038 mg/kg

Soil
Value: 0,02 mg/kg

STP
Value: 10 mg/l

intermittent release
Value: 1 mg/l

Rapeseed oil monoethanolamide, ethoxylated (3-4 EO) 85536-23-8: : Fresh water
Value: 0,0022 mg/l

Marine water
Value: 0,00022 mg/l

STP
Value: 10 mg/l

Fresh water sediment
Value: 0,136 mg/kg

Marine sediment
Value: 0,0136 mg/kg

Soil
Value: 0,109 mg/kg

8.2 Exposure controls

Personal protective equipment

Eye protection : not required under normal use

Hand protection

Material : not required under normal use

For prolonged or repeated contact use protective gloves.
It is suggested the usage of chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374-1: 2003 (0,4 mm).
As alternative, a different type of gloves might be used if, accordingly to the recommendations of the producer, guarantee the same level of protection.

Remarks : Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Skin and body protection : not required under normal use

Respiratory protection : not required under normal use

Environmental exposure controls

General advice : Try to prevent the material from entering drains or water courses.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	violet
Odour	:	characteristic
Odour Threshold	:	No data available
pH	:	ca. 9,2, at20 °C
Melting point/range	:	No data available

Boiling point/boiling range	:	No data available
Flash point	:	Not applicable
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Flammability (liquids)	:	No data available
Burning rate	:	No data available
Lower explosion limit	:	No data available
Upper explosion limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	No data available
Density	:	ca. 1,012 g/cm3 at 20 °C
Water solubility	:	soluble
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Ignition temperature	:	No data available
Thermal decomposition	:	No data available
Viscosity, dynamic	:	similar to water
Viscosity, kinematic	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions., No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions : No hazards to be specially mentioned.

10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

Hazardous decomposition products	:	No hazardous decomposition products are known.
Other information	:	No hazardous decomposition products are known.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Our company is strongly against animal testing.
Our company does not place any orders for animal testing for the finished product or the ingredients.
However, as a result of EU legislation (REACH Regulation), the manufacturers of ingredients or EU importers are obliged to test ingredients with regard to their effects on human health and the environment before they are brought onto the market. Some of the tests made necessary by this took place decades ago.

Product

Skin corrosion/irritation	:	According to the classification criteria of the European Union, the product is not considered as being a skin irritant.
Serious eye damage/eye irritation	:	According to the classification criteria of the European Union, the product is not considered as being an eye irritant.
Respiratory or skin sensitisation	:	No data available
Germ cell mutagenicity	:	Not Rated
Carcinogenicity	:	Not Rated
Reproductive toxicity	:	Not Rated
STOT - single exposure	:	The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	:	The substance or mixture is not classified as specific target organ toxicant, repeated exposure.
Aspiration toxicity	:	Not Rated
Further information	:	No data available

Components:
Alcohols, C12-14, ethoxylated, sulfates, sodium salts
68891-38-3:

Acute oral toxicity	:	LD50 Oral Rat: 2.870 mg/kg Method: OECD Test Guideline 401 LD50 Rat: 7.400 mg/kg Method: OECD Test Guideline 401
Acute dermal toxicity	:	LD50 Rat: > 2.000 mg/kg Method: OECD Test Guideline 402

GLP: yes

Skin corrosion/irritation	:	Species: Rabbit Method: OECD Test Guideline 404
Serious eye damage/eye irritation	:	Species: Rabbit Method: OECD Test Guideline 405
Respiratory or skin sensitisation	:	Result: Does not cause skin sensitisation.
Germ cell mutagenicity		
Genotoxicity in vitro	:	Result: negative Method: OECD Test Guideline 471
Reproductive toxicity	:	Species: Rat Application Route: Oral NOAEL: > 300 mg/kg, F1: > 300 mg/kg, Method: OECD Test Guideline 416
Teratogenicity	:	Species: Rat Application Route: Oral >1.000 mg/kg > 1.000 mg/kg Method: OECD Test Guideline 414
Repeated dose toxicity	:	NOAEL: 300 mg/kg
STOT - repeated exposure	:	Exposure routes: Ingestion Target Organs: Liver

1-phenoxypropan-2-ol
770-35-4:

Acute oral toxicity	:	LD50 Rat: > 2.000 mg/kg
Acute inhalation toxicity	:	LC50 Rat: 5,4 mg/l Exposure time: 4 h Test atmosphere: dust/mist
Acute dermal toxicity	:	LD50 Rabbit: > 2.000 mg/kg
Serious eye damage/eye irritation	:	Result: Eye irritation

Rapeseed oil monoethanolamide, ethoxylated (3-4 EO)
85536-23-8:

Acute oral toxicity	:	LD50 Oral Rat: > 2.000 mg/kg
Acute dermal toxicity	:	LD50 Dermal Rat: > 2.000 mg/kg

Skin corrosion/irritation	:	Species: Rabbit Result: Skin irritation
Serious eye damage/eye irritation	:	Species: Rabbit Result: No eye irritation
Respiratory or skin sensitisation	:	Species: Guinea pig Result: Does not cause skin sensitisation.
Germ cell mutagenicity		
Genotoxicity in vitro	:	Type: Ames test Result: negative Method: OECD Test Guideline 471
	:	Type: Chromosome aberration test in vitro Result: negative Method: OECD Test Guideline 473
	:	Type: Micronucleus test Result: negative Method: Mutagenicity (micronucleus test)
Repeated dose toxicity	:	No observed adverse effect level: Rat: NOAEL: 150 mg/kg Application Route: Oral Note: Subacute toxicity

SECTION 12: Ecological information

12.1 Toxicity

Components:

Alcohols, C12-14, ethoxylated, sulfates, sodium salts
68891-38-3:

Toxicity to fish	:	LC50 (Danio rerio (zebra fish)): 7,1 mg/l Exposure time: 96 h Test Type: flow-through test Method: OECD Test Guideline 203 GLP: yes LC50 (Fish): > 1 - 10 mg/l Test Type: semi-static test Method: OECD Test Guideline 203 LC50 (Leuciscus idus (Golden orfe)): 10 - 100 mg/l Method: OECD Test Guideline 203 NOEC (Oncorhynchus mykiss (rainbow trout)): 0,14 mg/l Exposure time: 28 d Test Type: flow-through test Method: OECD Test Guideline 204 LC50 (Brachydanio rerio (zebrafish)): 1 - 10 mg/l Test Type: flow-through test

Method: OECD Test Guideline 203

LC50 (Brachydanio rerio (zebrafish)): 7,1 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia pulex (Water flea)): 7,4 mg/l
Exposure time: 48 h
Test Type: Immobilization
Method: OECD Test Guideline 202

EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

NOEC (Daphnia magna (Water flea)): 0,27 mg/l
Exposure time: 21 d
Test Type: flow-through test
Method: OECD Test Guideline 211

(Daphnia magna (Water flea)): 7,2 mg/l
Exposure time: 48 h

Toxicity to algae : EC50 (Desmodesmus subspicatus (green algae)): 27,7 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201
GLP: yes

EC50 (Scenedesmus subspicatus): 10 - 100 mg/l
Method: OECD Test Guideline 201

EC50 (Desmodesmus subspicatus (green algae)): > 10 - 100 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

NOEC : 0,95 mg/l
Test Type: Growth inhibition
Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): 0,93 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

Toxicity to bacteria : EC50 (Pseudomonas putida): > 10 g/l
Exposure time: 16 h
Test Type: Cell multiplication inhibition test
Method: DIN 38412
GLP: yes

EC10 (Pseudomonas putida): > 10 g/l
Test Type: Cell multiplication inhibition test
GLP:

Toxicity to fish (Chronic toxicity) : NOEC: 1,2 mg/l

NOEC: 1 - 10 mg/l
Species: Leuciscus idus (Golden orfe)

		NOEC: 0,14 mg/l Exposure time: 28 d Species: Oncorhynchus mykiss (rainbow trout) Method: OECD Test Guideline 204
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: > 0,1 - 1 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211
Toxicity to soil dwelling organisms	:	NOEC: 750 mg/kg Exposure time: 96 d Species: Eisenia fetida (earthworms) Method: OECD Test Guideline 222

1-phenoxypropan-2-ol
770-35-4:

Toxicity to fish	:	LC50 (Leuciscus idus (Golden orfe)): > 220 - 460 mg/l Exposure time: 96 h LC50 (Pimephales promelas (fathead minnow)): 280 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	LC50 (Daphnia magna (Water flea)): 370 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202
Toxicity to algae	:	EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l Exposure time: 72 h Test Type: static test EC50 (Desmodesmus subspicatus (green algae)): 74,5 mg/l Exposure time: 72 h
Toxicity to bacteria	:	EC50 (Bacteria): > 1.000 mg/l Exposure time: 17 h

Rapeseed oil monoethanolamide, ethoxylated (3-4 EO)
85536-23-8:

Toxicity to fish	:	LC50 (Fish): 2,9 mg/l Exposure time: 96 h Method: OECD Test Guideline 203
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): 3,8 mg/l Exposure time: 48 h Method: OECD Test Guideline 202
Toxicity to algae	:	EC50 : 410 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 Remarks: Fresh water
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEC: 0,4 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: Reproduction Test

12.2 Persistence and degradability

Product:

Biodegradability : Remarks: The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

Components:

Alcohols, C12-14, ethoxylated, sulfates, sodium salts
68891-38-3:

Biodegradability : Test Type: aerobic
Result: rapidly biodegradable
Biodegradation: > 70 %
Exposure time: 28 d
Method: OECD 301 A

Test Type: anaerobic
Result: Biodegradable
Biodegradation: > 60 %
Exposure time: 41 d

1-phenoxypropan-2-ol
770-35-4:

Biodegradability : Biodegradation: 72 %
Exposure time: 28 d
Method: OECD 301 F

12.3 Bioaccumulative potential

Components:

Alcohols, C12-14, ethoxylated, sulfates, sodium salts
68891-38-3:

Bioaccumulation : Remarks: Bioaccumulation is unlikely.

1-phenoxypropan-2-ol
770-35-4:

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Rapeseed oil monoethanolamide, ethoxylated (3-4 EO)
85536-23-8:

Partition coefficient: n-octanol/water : log Pow: 5

12.4 Mobility in soil

Components:

Alcohols, C12-14, ethoxylated, sulfates, sodium salts
68891-38-3:

Distribution among environmental compartments : Adsorption/Soil
Medium:Soil
Koc: 191Method: see user defined free text

12.5 Results of PBT and vPvB assessment

Components:

Alcohols, C12-14, ethoxylated, sulfates, sodium salts
68891-38-3:

Assessment	:	This substance is not considered to be very persistent and very bioaccumulating (vPvB).. This substance is not considered to be persistent, bioaccumulating and toxic (PBT)..

12.6 Other adverse effects

Product:

Additional ecological information	:	There is no data available for this product.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	:	Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number

ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

14.2 Proper shipping name
Not regulated as a dangerous good

14.3 Transport hazard class

ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

14.4 Packing group

ADR
Not dangerous goods
IMDG
Not dangerous goods
IATA
Not dangerous goods

14.5 Environmental hazards

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

14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

For personal protection see section 8.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable for product as supplied.

SECTION 15: Regulatory information

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

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

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

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : Not applicable

TA Luft List (Germany)
: Total dust: Not applicable
: Inorganic substances in powdered form: Not applicable
: Inorganic substances in vapour or gaseous form: : portionClass 3: 1 %
: Organic Substances: : portionClass 1: < 0,01 %
: Carcinogenic substances: Not applicable
: Mutagenic: Not applicable
: Toxic to reproduction: Not applicable

Volatile organic compounds (VOC) content : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Update: Percent volatile: 0,09 %
12,33 g/l
VOC content excluding water

Volatile organic compounds (VOC) content : Directive 2010/75/EU of 24 November 2010 on industrial emissions (integrated pollution prevention and control)
Update: Percent volatile: 0,09 %
0,96 g/l
VOC content valid only for coating materials used on wood surfaces

according to Detergents Regulation EC 648/2004 : <5% Anionic surfactants, Non-ionic surfactants, soap, Perfumes

15.2 Chemical safety assessment
There is no data available for this product.

SECTION 16: Other information

Full text of H-Statements

H315 Causes skin irritation.

H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Further information

Items where changes have been made to the previous version are highlighted in the body of this document by two vertical lines.

Classification procedure: Calculation method

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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.