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GB IRL M

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

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

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

1.1 Product identifier

Green Star

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

Relevant identified uses of the substance or mixture:

Universal cleaner
Sector of use [SU]:
SU 3 - Industrial uses: Uses of substances as such or in preparations at industrial sites
SU22 - Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
Chemical product category [PC]:
PC35 - Washing and cleaning products
Process category [PROC]:
PROC 7 - Industrial spraying
PROC10 - Roller application or brushing
PROC19 - Manual activities involving hand contact
Environmental Release Category [ERC]:
ERC 8a - Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)
ERC 8d - Widespread use of non-reactive processing aid (no inclusion into or onto article, outdoor)

Uses advised against:

No information available at present.

1.3 Details of the supplier of the safety data sheet

GB

Koch-Chemie GmbH, Einsteinstrasse 42, 59423 Unna, Germany
Phone:+49 (0) 2303/9 86 70 - 0, Fax:+49 (0) 2303/9 86 70 - 26
KCU@KOCH-CHEMIE.de, www.KOCH-CHEMIE.de

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:

IRL

National Poisons Information Centre, Beaumont Hospital, Dublin 9, Ireland, Tel.:
+353 (0)1 809 2166 (Public Poisons Info Line, 8am-10pm, 7 days a week)
+353 (0)1 809 2566 (Info for Healthcare Professionals ONLY, 24 h, 7 days a week)

Telephone number of the company in case of emergencies:

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

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
Eye Irrit.	2	H319-Causes serious eye irritation.

2.2 Label elements

Labeling according to Regulation (EC) 1272/2008 (CLP)

Warning

H319-Causes serious eye irritation.

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. P337+P313-If eye irritation persists: Get medical advice / attention.

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

Trisodium nitrilotriacetate, solution	
Registration number (REACH)	01-2119519239-36-XXXX
Index	---
EINECS, ELINCS, NLP	225-768-6
CAS	5064-31-3
content %	10-20
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319 Carc. 2, H351 Met. Corr. 1, H290

Sodium p-cumenesulphonate	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	239-854-6
CAS	15763-76-5
content %	1-10
Classification according to Regulation (EC) 1272/2008 (CLP)	Eye Irrit. 2, H319

Alcohols, C12-14, ethoxylated, sulfates, sodium salts	**Substance with specific conc. limit(s) acc. to REACh-registration**
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	500-234-8 (NLP)
CAS	68891-38-3
content %	1-10

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

Isotridecanol, ethoxylated	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	931-138-8 (REACH-IT List-No.)
CAS	69011-36-5
content %	1-<10
Classification according to Regulation (EC) 1272/2008 (CLP)	Acute Tox. 4, H302 Eye Dam. 1, H318

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
Not required.

Skin contact
Wash thoroughly using copious water - remove contaminated clothing immediately. If skin irritation occurs (redness etc.), consult doctor.

Eye contact
Remove contact lenses.
Wash thoroughly for several minutes using copious water - call doctor immediately, have Data Sheet available.
Protect uninjured eye.
Consult medical specialist.

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.
The following may occur:
Irritation of the skin.
Ingestion:
Pain in the mouth and throat
Oesophageal perforation
Gastric perforation
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
n.c.

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media
Product is not combustible.
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.
Neutralising is possible (only from a specialist).
Diluting with water is possible.
Flush residue using copious water.

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

Keep out of access to unauthorised individuals.
Store product closed and only in original packing.
Not to be stored in gangways or stair wells.
Alkali-resistant floor necessary.
Do not store with acids.
Store at room temperature.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

IRL	Chemical Name	Nitrilotriethanol	Content %:
OELV-8h: 5 mg/m3	OELV-15min: ---	---	
Monitoring procedures: ---			
BLV: ---	Other information: ---		

Trisodium nitrilotriacetate, solution						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,93	mg/l	
	Environment - sediment, marine		PNEC	0,364	mg/kg	
	Environment - oral (animal feed)		PNEC	0,2	mg/kg	
	Environment - soil		PNEC	0,182	mg/kg	
	Environment - sediment, freshwater		PNEC	3,64	mg/kg	
	Environment - sewage treatment plant		PNEC	540	mg/l	
	Environment - marine		PNEC	0,093	mg/l	
Consumer	Human - oral	Long term, systemic effects	DNEL	0,5	mg/kg	
Consumer	Human - inhalation	Short term, local effects	DNEL	1,75	mg/m3	
Consumer	Human - inhalation	Short term, systemic effects	DNEL	1,75	mg/m3	
Industrial / commercial	Human - inhalation	Long term, local effects	DNEL	3,5	mg/m3	
Industrial / commercial	Human - inhalation	Long term, systemic effects	DNEL	3,5	mg/m3	
Industrial / commercial	Human - inhalation	Short term, systemic effects	DNEL	5,25	mg/m3	
Industrial / commercial	Human - inhalation	Short term, local effects	DNEL	5,25	mg/m3	

Sodium p-cumenesulphonate						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,23	mg/l	
	Environment - sporadic (intermittent) release		PNEC	2,3	mg/l	
	Environment - sewage treatment plant		PNEC	100	mg/l	
	Environment - marine		PNEC	0,023	mg/l	
	Environment - sediment, freshwater		PNEC	0,862	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	68,1	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	6,6	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	3,8	mg/kg bw/day	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	136,25	mg/kg bw/day	

Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	26,9	mg/m3	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,096	mg/cm2	

Alcohols, C12-14, ethoxylated, sulfates, sodium salts						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,24	mg/l	
	Environment - periodic release		PNEC	0,13	mg/l	
	Environment - marine		PNEC	0,024	mg/l	
	Environment - sediment, freshwater		PNEC	5,45	mg/kg dry weight	
	Environment - sediment, marine		PNEC	0,545	mg/kg dry weight	
	Environment - sewage treatment plant		PNEC	10000	mg/l	
	Environment - soil		PNEC	0,946	mg/kg dry weight	
	Environment - sporadic (intermittent) release		PNEC	0,071	mg/l	
	Environment - sediment, freshwater	Short term	PNEC	0,917	mg/kg	
	Environment - sediment, marine	Short term	PNEC	0,092	mg/kg	
	Environment - soil	Short term	PNEC	7,5	mg/kg	
Consumer	Human - dermal	Long term, local effects	DNEL	0,079	mg/cm2	
Consumer	Human - oral	Long term, systemic effects	DNEL	15	mg/kg bw/day	
Consumer	Human - dermal	Long term, systemic effects	DNEL	1650	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	52	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	2750	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	175	mg/m3	
Workers / employees	Human - dermal	Long term, local effects	DNEL	0,132	mg/cm2	

Nitrilotriethanol						
Area of application	**Exposure route / Environmental compartment**	**Effect on health**	**Descriptor**	**Value**	**Unit**	**Note**
	Environment - freshwater		PNEC	0,32	mg/l	
	Environment - marine		PNEC	0,032	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	5,12	mg/l	
	Environment - sewage treatment plant		PNEC	10	mg/l	
	Environment - sediment, freshwater		PNEC	1,7	mg/kg	
	Environment - sediment, marine		PNEC	0,17	mg/kg	

	Environment - soil		PNEC	0,151	mg/kg dry weight	
Consumer	Human - dermal	Long term, systemic effects	DNEL	3,1	mg/kg bw/day	
Consumer	Human - oral	Long term, systemic effects	DNEL	13	mg/kg bw/day	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	1,25	mg/m3	
Consumer	Human - inhalation	Long term, local effects	DNEL	1,25	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	6,3	mg/kg bw/day	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	5	mg/m3	
Workers / employees	Human - inhalation	Long term, local effects	DNEL	5	mg/m3	

GB 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.

IRL OELV-8h = Occupational Exposure Limit Value (8-hour reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.
(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU). | OELV-15min = Occupational Exposure Limit Value (15-minute reference period). (IFV) = Inhalable Fraction and Vapour. (I) = Inhalable Fraction. (R) = Respirable Fraction.
(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). | BLV = Biological limit value | Other information: Carc1A, Carc1B = carcinogenic substance, Cat. 1A or 1B. Muta1A, Muta1B = mutagenic substance, Cat. 1A or 1B. Repr1A, Repr1B = Substances known to be toxic for reproduction, Cat. 1A or 1B. Sk = can be absorbed through skin. Asphx = asphyxiant. Sen = Respiratory sensitizer. BOELV = Binding Occupational Exposure Limit Values. IOELV = Indicative Occupational Exposure Limit Values.

M OELV-8h = Occupational Exposure Limit Value - 8 h (8-hour reference period as a time-weighted average)
(8) = Inhalable fraction (2017/164/EU, 2017/2398/EU). (9) = Respirable fraction (2017/164/EU, 2017/2398/EU).
[9] = Inhalable fraction (S.L.424.24), [10] = Respirable fraction (S.L.424.24). | OELV-ST = Occupational Exposure Limit Value - Short-term (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).
[8] = Short-term exposure limit value in relation to a reference period of 1 minute. (S.L.424.24), [9] = Inhalable fraction (S.L.424.24), [10] = Respirable fraction (S.L.424.24) | BMGV = Biological monitoring guidance value EH40. BGW = "Biologischer Grenzwert" (biological limit value, Germany) | Other information: Skin = Possibility of a significant uptake through the skin.
[11] = When selecting an appropriate exposure monitoring method , account should be taken of potential limitations and interferences that may arise in the presence of other sulphur compounds. (S.L.424.24), [12] = The mist is defined as the thoracic fraction. (S.L.424.24), [13] = Established in accordance with the Annex to Directive 91/322/EEC. (S.L.424.24), [14] = During exposure monitoring for mercury and its divalent inorganic compounds, account should be taken of relevant biological monitoring techniques that complement the OELV. (S.L.424.24)

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:
Chemical resistant protective gloves (EN 374).
Recommended
Protective gloves in butyl rubber (EN 374).
Minimum layer thickness in mm:
0,7
Permeation time (penetration time) in minutes:
> 120
Protective hand cream recommended.
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.

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:	Liquid
Colour:	Green
Odour:	Lemon
Odour threshold:	Not determined
pH-value:	12,5
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	n.a.
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined

Lower explosive limit:	n.a.
Upper explosive limit:	n.a.
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	1,1 g/ml (20°C)
Bulk density:	Not determined
Solubility(ies):	Not determined
Water solubility:	Mixable
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not determined
Oxidising properties:	No

9.2 Other information

Miscibility:	Not determined
Fat solubility / solvent:	Not determined
Conductivity:	Not determined
Surface tension:	Not determined
Solvents content:	Not determined

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 decomposition if used as intended.

10.4 Conditions to avoid
None known

10.5 Incompatible materials
Avoid contact with strong acids.
Avoid contact with strong oxidizing agents.
Product corrodes metals.

10.6 Hazardous decomposition products
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).

Green Star						
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:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
Skin corrosion/irritation:				Rat	OECD 431 (In Vitro Skin Corrosion - Human Skin Model Test)	Analogous conclusion, Non-caustic
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 - single exposure (STOT-SE):						n.d.a.
Specific target organ toxicity - repeated exposure (STOT-RE):						n.d.a.
Aspiration hazard:						n.d.a.
Symptoms:						n.d.a.

Trisodium nitrilotriacetate, solution						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	3900	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit		Not irritant
Serious eye damage/irritation:				Rabbit		Irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising
Carcinogenicity:		<45	%			Active substance

Sodium p-cumenesulphonate						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	>7000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	>5	mg/l/4h	Rat		Aerosol
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	No (skin contact)
Germ cell mutagenicity:				Mouse	OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:				Rat	OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	Negative
Reproductive toxicity:	NOAEL	>936	mg/kg	Rat		
Aspiration hazard:						n.a.
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	763-3534	mg/kg		OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	763	mg/kg	Rat		Target organ(s): heart, References
Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	LOAEL	1300	mg/kg bw/d	Mouse	OECD 411 (Subchronic Dermal Toxicity - 90-day Study)	

Specific target organ toxicity - repeated exposure (STOT-RE), dermal:	NOAEL	>440	mg/kg		OECD 411 (Subchronic Dermal Toxicity - 90-day Study)	

Alcohols, C12-14, ethoxylated, sulfates, sodium salts

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	4100	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat	OECD 402 (Acute Dermal Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Risk of serious damage to eyes.
Serious eye damage/irritation:		>=10	%			Eye Dam. 1
Serious eye damage/irritation:		>=5	%			Eye Irrit. 2
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 475 (Mammalian Bone Marrow Chromosome Aberration Test)	Negative
Germ cell mutagenicity:					OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Reproductive toxicity:	NOAEL	>1000	mg/kg	Rat	OECD 414 (Prenatal Developmental Toxicity Study)	Negative, References
Reproductive toxicity:	NOAEL	>300	mg/kg	Rat	OECD 416 (Two-generation Reproduction Toxicity Study)	Negative, References
Aspiration hazard:						No
Symptoms:						mucous membrane irritation
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	>225	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Target organ(s): liver, References

Isotridecanol, ethoxylated

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>300-2000	mg/kg	Rat		References
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rat		References
Skin corrosion/irritation:				Rabbit		Not irritant, References
Serious eye damage/irritation:				Rabbit		Eye Dam. 1>10% solution
Respiratory or skin sensitisation:				Guinea pig		Negative, References

Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative, References
Reproductive toxicity:	NOAEL	>250	mg/kg bw/d	Rat	OECD 416 (Two-generation Reproduction Toxicity Study)	References
Aspiration hazard:						No
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	50	mg/kg bw/d	Rat		Target organ(s): heart, Target organ(s): liver, Target organ(s): kidneys, References

Nitrilotriethanol						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by oral route:	LD50	6400	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	>2000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC0	1,8	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	Vapours
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	IUCLID Chem. Data Sheet (ESIS)	Not irritant
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Negative
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Germ cell mutagenicity:					OECD 474 (Mammalian Erythrocyte Micronucleus Test)	Negative
Carcinogenicity:						With nitrosating agents nitrosamines may form., In animal experiments nitrosamines have proved carcinogenic.
Symptoms:						unconsciousness, diarrhoea, coughing, collapse, fatigue, dizziness, nausea and vomiting.

SECTION 12: Ecological information

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

Green Star							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:							n.d.a.
12.1. Toxicity to daphnia:							n.d.a.
12.1. Toxicity to algae:							n.d.a.
12.2. Persistence and degradability:							The surfactant(s) contained in this mixture complies(compl y) 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 potential:							n.d.a.
12.4. Mobility in soil:							n.d.a.
12.5. Results of PBT and vPvB assessment							n.d.a.
12.6. Other adverse effects:							n.d.a.
Other information:							According to the recipe, contains no AOX.

Trisodium nitrilotriacetate, solution							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	>500	mg/l	Leuciscus idus		
12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l			References
12.1. Toxicity to algae:	EC50	72h	>100	mg/l			References
12.2. Persistence and degradability:			>90	%		OECD 302 B (Inherent Biodegradability - Zahn-Wellens/EMPA Test)	
12.3. Bioaccumulative potential:	Log Pow		> -2,6				Bioaccumulatio n is unlikely (LogPow < 1).20°C

12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Other information:	COD		160	mg/g			
Other information:	BOD5		<5	mg/g			
Water solubility:							Soluble

Sodium p-cumenesulphonate							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	>100	mg/l	Cyprinus caprio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	EC50	48h	>100	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	>60	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	Readily biodegradable
12.3. Bioaccumulative potential:	Log Pow		-1,1				Bioaccumulation is unlikely (LogPow < 1).
Toxicity to bacteria:	EC50	3h	>1000	mg/l	activated sludge	OECD 209 (Activated Sludge, Respiration Inhibition Test (Carbon and Ammonium Oxidation))	

Alcohols, C12-14, ethoxylated, sulfates, sodium salts							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.2. Persistence and degradability:	DOC	28d	100	%	activated sludge	Regulation (EC) 440/2008 C.4-C (DETERMINATION OF 'READY' BIODEGRADABILITY - CO2 EVOLUTION TEST)	Readily biodegradable
12.1. Toxicity to fish:	NOEC/NOEL	28d	0,2	mg/l	Oncorhynchus mykiss	OECD 204 (Fish, Prolonged Toxicity Test - 14-Day Study)	
12.1. Toxicity to fish:	LC50	96h	7,1	mg/l	Brachydanio rerio	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,27	mg/l	Daphnia magna	OECD 211 (Daphnia magna Reproduction Test)	

12.1. Toxicity to daphnia:	EC50	48h	7,2	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	NOEC/NOEL	96h	0,95	mg/l		OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EC50	72h	2,6	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:		28d	95	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	Readily biodegradable
12.2. Persistence and degradability:		28d	>70	%		OECD 301 A (Ready Biodegradability - DOC Die-Away Test)	Readily biodegradable
12.3. Bioaccumulative potential:	BCF		-1,38				Low
12.4. Mobility in soil:	Koc		191				calculated value
12.5. Results of PBT and vPvB assessment							No PBT substance
Toxicity to bacteria:	EC50	16h	>10	g/l	Pseudomonas putida	DIN 38412 T.8	

Isotridecanol, ethoxylated

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
12.1. Toxicity to fish:	LC50	96h	10-100	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, Acute Toxicity Test)	References
12.1. Toxicity to daphnia:	EC50	48h	>1-10	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	References
12.1. Toxicity to daphnia:	EC10	21d	2,6	mg/l		OECD 211 (Daphnia magna Reproduction Test)	
12.1. Toxicity to algae:	EC50	72h	>10-100	mg/l	Scenedesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	
12.1. Toxicity to algae:	EC50	72h	>1-10	mg/l	Desmodesmus subspicatus	OECD 201 (Alga, Growth Inhibition Test)	References
12.2. Persistence and degradability:		28d	>70	%		OECD 301 A (Ready Biodegradability - DOC Die-Away Test)	References

12.2. Persistence and degradability:		28d	>60	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	References
12.4. Mobility in soil:	Koc		>5000				Adsorption in ground.
12.4. Mobility in soil:	Kow		>5000				Adsorption in ground.
Toxicity to bacteria:	EC50		140	mg/l	activated sludge		
Toxicity to bacteria:	EC50		>10000	mg/l	Pseudomonas putida	ISO 10712	
Other organisms:	NOEC/NOEL		10	mg/kg		OECD 208 (Terrestrial Plants, Growth Test)	
Toxicity to annelids:	LC50	14d	>1000	mg/kg	Eisenia foetida	OECD 207 (Earthworm, Acute Toxicity Tests)	

Nitrilotriethanol							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to daphnia:	EC50	24h	1390	mg/l	Daphnia magna	IUCLID Chem. Data Sheet (ESIS)	
12.1. Toxicity to algae:	IC50	72h	216	mg/l	Desmodesmus subspicatus	IUCLID Chem. Data Sheet (ESIS)	
12.3. Bioaccumulative potential:	Log Pow		-2,3			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	Not accepted due to the log Pow - value.
Toxicity to bacteria:	EC50	16h	>10.000	mg/l	Pseudomonas putida		

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
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.

Safety data sheet according to Regulation (EC) No 1907/2006, Annex II
Revision date / version: 05.03.2019 / 0017
Replacing version dated / version: 20.08.2018 / 0016
Valid from: 05.03.2019
PDF print date: 05.03.2019
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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): n.a.
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 trade association/occupational health regulations.

Directive 2010/75/EU (VOC): 0 %

REGULATION (EC) No 648/2004

5 % or over but less than 15 %
non-ionic surfactants
less than 5 %
NTA (nitrilotriacetic acid) and salts thereof
anionic surfactants

perfumes
LIMONENE

National rules/regulation for the compliance with maximum quantities with regard to phosphates and or phosphorous compounds must be observed and complied with.

15.2 Chemical safety assessment

A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 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 (EC) No. 1272/2008 (CLP)	Evaluation method used
Eye Irrit. 2, H319	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).
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H351 Suspected of causing cancer.
H412 Harmful to aquatic life with long lasting effects.

Eye Irrit. — Eye irritation
Carc. — Carcinogenicity
Met. Corr. — Substance or mixture corrosive to metals
Skin Irrit. — Skin irritation
Eye Dam. — Serious eye damage
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Acute Tox. — Acute toxicity - oral

Any abbreviations and acronyms used in this document:

AC Article Categories
acc., acc. to according, according to
ACGIH American Conference of Governmental Industrial Hygienists
ADR 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
ATE Acute Toxicity Estimate according to Regulation (EC) 1272/2008 (CLP)
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
bw body weight
CAS Chemical Abstracts Service
CEC Coordinating European Council for the Development of Performance Tests for Fuels, Lubricants and Other Fluids
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	dry weight
e.g.	for example (abbreviation of Latin 'exempli gratia'), for instance
EC	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
EN	European Norms
EPA	United States Environmental Protection Agency (United States of America)
ERC	Environmental Release Categories
ES	Exposure scenario
etc.	et cetera
EU	European Union
EWC	European Waste Catalogue
Fax.	Fax number
gen.	general
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
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
IBC (Code)	International Bulk Chemical (Code)
IC	Inhibitory concentration
IMDG-code	International Maritime Code for Dangerous Goods
incl.	including, inclusive
IUCLID	International Uniform ChemicaL Information Database
LC	lethal concentration
LC50	lethal concentration 50 percent kill
LCLo	lowest published lethal concentration
LD	Lethal Dose of a chemical
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
LQ	Limited Quantities
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)
NOAEC	No 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
REACH Registration, 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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