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

Toko Proof & Care

5582624 Shoe Proof & Care 250ml

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses of the substance or mixture:
Impregnator
Sector of use [SU]:
SU21 - Consumer uses: Private households (=general public = consumers)
Chemical product category [PC]:
PC34 - Textile dyes, and impregnating products
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

SWIX SPORT GmbH, Junkersstr. 1, 82178 Puchheim, Germany
Phone: (+49) 089 849369-21, Fax: (+49) 089 849369-13
info@swixsport.de, www.swix.de

Toko-Swix Sport AG
Industriestrasse 4
CH-9450 Altstätten SG
Tel.: +41 (0)71 757 73 73 Fax: +41 (0)71 757 73 00
www.toko.ch
www.facebook.com/tokoworldwide

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 (SWS)

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.

STOT SE	3	H336-May cause drowsiness or dizziness.
Aquatic Chronic	3	H412-Harmful to aquatic life with long lasting effects.
Aerosol	1	H222-Extremely flammable aerosol.
Asp. Tox.	1	H304-May be fatal if swallowed and enters airways.
Aerosol	1	H229-Pressurised container: May burst if heated.

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

Danger

H319-Causes serious eye irritation. H336-May cause drowsiness or dizziness. H412-Harmful to aquatic life with long lasting effects. H222-Extremely flammable aerosol. H229-Pressurised container: May burst if heated.

P101-If medical advice is needed, have product container or label at hand. P102-Keep out of reach of children.
P210-Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211-Do not spray on an open flame or other ignition source. P251-Do not pierce or burn, even after use. P261-Avoid breathing vapours or spray. P271-Use only outdoors or in a well-ventilated area.
P312-Call a POISON CENTRE / doctor if you feel unwell.
P405-Store locked up. P410+P412-Protect from sunlight. Do not expose to temperatures exceeding 50 °C.
P501-Dispose of contents / container to special waste collection point.

EUH066-Repeated exposure may cause skin dryness or cracking.

Without adequate ventilation, formation of explosive mixtures may be possible.
Caution! You must comply! Damage to health possible due to inhaling! Only use outdoors or in well-ventilated rooms!
Spray only for a few seconds! Spray leather and textile products only outdoors and let them air well! Keep away from children!
Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics
Isopropyl acetate
Propan-2-ol

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

Aerosol

3.1 Substance
n.a.

3.2 Mixture

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics	
Registration number (REACH)	---
Index	---
EINECS, ELINCS, NLP	927-241-2 (REACH-IT List-No.)

CAS	---
content %	50-70
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 3, H226 Asp. Tox. 1, H304 STOT SE 3, H336 Aquatic Chronic 3, H412

Propan-2-ol	
Registration number (REACH)	01-2119457558-25-XXXX
Index	603-117-00-0
EINECS, ELINCS, NLP	200-661-7
CAS	67-63-0
content %	10-15
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Isopropyl acetate	
Registration number (REACH)	01-2119537214-46-XXXX
Index	607-024-00-6
EINECS, ELINCS, NLP	203-561-1
CAS	108-21-4
content %	1-5
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Ethanol	**Substance with specific conc. limit(s) acc. to REACh-registration**
Registration number (REACH)	---
Index	603-002-00-5
EINECS, ELINCS, NLP	200-578-6
CAS	64-17-5
content %	1-2,5
Classification according to Regulation (EC) 1272/2008 (CLP)	Flam. Liq. 2, H225 Eye Irrit. 2, H319

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 3.1/3.2 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.
If, for example, the note P is applied for a hydrocarbon then this has already been taken into account for the classification named here.
Quote: "Note P - The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7)."
Article 4 of the regulation (EC) no. 1272/2008 (CLP regulation) was also observed and taken into account for the classification named here.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation

Remove person from danger area.
Supply person with fresh air and consult doctor according to symptoms.
If the person is unconscious, place in a stable side position and consult a doctor.

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. Seek medical help if necessary.

Ingestion

Typically no exposure pathway.
Rinse the mouth thoroughly with water.
Do not induce vomiting - give copious water to drink. Consult doctor immediately.
Danger of aspiration
In case of vomiting, keep head low so that the stomach content does not reach the lungs.

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 respiratory tract
Coughing
Headaches
Dizziness
Effects/damages the central nervous system
Coordination disorders
Mental confusion
Ingestion:
Nausea
Vomiting
Danger of aspiration
Oedema of the lungs
Chemical pneumonitis (condition similar to pneumonia)
Other dangerous properties cannot be ruled out.

4.3 Indication of any immediate medical attention and special treatment needed

Gastric lavage (stomach washing) only under endotracheal intubation.
Subsequent observation for pneumonia and pulmonary oedema.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

CO2
Extinction powder
Water jet spray
Alcohol resistant foam

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
Toxic gases
Danger of bursting (explosion) when heated
Explosive vapour/air mixture

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.
Cool container at risk with water.
Dispose of contaminated extinction water according to official regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove possible causes of ignition - do not smoke.
Ensure sufficient supply of air.
Avoid inhalation, and contact with eyes or skin.

If applicable, caution - risk of slipping.

6.2 Environmental precautions

Prevent surface and ground-water infiltration, as well as ground penetration.
Prevent penetration into drains, cellars, working pits or other places in which accumulation could be hazardous.
If accidental entry into drainage system occurs, inform responsible authorities.

6.3 Methods and material for containment and cleaning up

If spray or gas escapes, ensure ample fresh air is available.
Without adequate ventilation, formation of explosive mixtures may be possible.
Active substance:
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 inhalation of the vapours.
Avoid contact with eyes or skin.
Keep away from sources of ignition - Do not smoke.
Take measures against electrostatic charging, if appropriate.
Do not use on hot surfaces.
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.
Not to be stored in gangways or stair wells.
Store product closed and only in original packing.
Do not store with flammable or self-igniting materials.
Observe special storage conditions.
Observe special regulations for aerosols!
Keep protected from direct sunlight and temperatures over 50°C.
Store in a well-ventilated place.
Store cool.

7.3 Specific end use(s)

No information available at present.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limit (WEL) of the total hydrocarbon solvent content of the mixture (RCP method according to EH40):
800 mg/m3

GB	**Chemical Name**	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics	Content %:50-70
WEL-TWA: 800 mg/m3		WEL-STEL: ---	---
Monitoring procedures:	- Draeger - Hydrocarbons 2/a (81 03 581) - Draeger - Hydrocarbons 0,1%/c (81 03 571) - Compur - KITA-187 S (551 174)		

BMGV: ---	Other information: (WEL acc. to RCP-method, EH40)

Chemical Name	Propan-2-ol	Content %:10-15
WEL-TWA: 400 ppm (999 mg/m3)	WEL-STEL: 500 ppm (1250 mg/m3)	---
Monitoring procedures:	- Compur - KITA-122 SA(C) (549 277) - Compur - KITA-150 U (550 382) - Draeger - Alcohol 25/a i-Propanol (81 01 631) DFG (D) (Loesungsmittelgemische), DFG (E) (Solvent mixtures 6) - 1998, 2002 - - EU project BC/CEN/ENTR/000/2002-16 card 66-3 (2004) - Draeger - Alcohol 100/a (CH 29 701)	
BMGV: ---	Other information: ---	

Chemical Name	Isopropyl acetate	Content %:1-5
WEL-TWA: ---	WEL-STEL: 200 ppm (849 mg/m3)	---
Monitoring procedures:	- Compur - KITA-139 SB(C) (549 731) - Compur - KITA-111 U (549 178) - NIOSH 1454 (Isopropyl acetate) - 1994 - EU project BC/CEN/ENTR/000/2002-16 card 14-4 (2004)	
BMGV: ---	Other information: ---	

Chemical Name	Ethanol	Content %:1-2,5
WEL-TWA: 1000 ppm (1920 mg/m3)	WEL-STEL: ---	---
Monitoring procedures:	- Compur - KITA-104 SA (549 210) - Draeger - Alcohol 25/a Ethanol (81 01 631) - DFG (D) (Loesungsmittelgemische), Methode Nr. 6 DFG (E) (Solvent mixtures) - 1998, 2002 - EU project BC/CEN/ENTR/000/2002-16 card 63-2 (2004)	
BMGV: ---	Other information: ---	

Chemical Name	Butane	Content %:
WEL-TWA: 600 ppm (1450 mg/m3)	WEL-STEL: 750 ppm (1810 mg/m3)	---
Monitoring procedures:	- Compur - KITA-221 SA (549 459)	
BMGV: ---	Other information: ---	

Chemical Name	Propane	Content %:
WEL-TWA: 1000 ppm (ACGIH)	WEL-STEL: ---	---
Monitoring procedures:	- Compur - KITA-125 SA (549 954)	
BMGV: ---	Other information: ---	

Chemical Name	Isobutane	Content %:
WEL-TWA: 1000 ppm (ACGIH)	WEL-STEL: ---	---
Monitoring procedures:	- Compur - KITA-113 SB(C) (549 368)	
BMGV: ---	Other information: ---	

WEL-TWA = Workplace Exposure Limit - Long-term exposure limit (8-hour TWA (= time weighted average) reference period) EH40. AGW = "Arbeitsplatzgrenzwert" (workplace limit value, Germany). | WEL-STEL = Workplace Exposure Limit - Short-term exposure limit (15-minute reference period). | 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.

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
Consumer	Human - dermal	Long term, systemic effects	DNEL	300	mg/kg bw/d	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	900	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	300	mg/kg bw/day	

Workers / employees	Human - dermal	Long term, systemic effects	DNEL	300	mg/kg bw/d	
Workers / employees	Human - inhalation	Long term, systemic effects	DNEL	1500	mg/m3	

Propan-2-ol

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	140,9	mg/l	
	Environment - marine		PNEC	140,9	mg/l	
	Environment - sediment, freshwater		PNEC	552	mg/kg	
	Environment - sediment, marine		PNEC	552	mg/kg	
	Environment - soil		PNEC	28	mg/kg	
	Environment - sewage treatment plant		PNEC	2251	mg/l	
Consumer	Human - dermal	Long term	DNEL	319	mg/kg	(1 d)
Consumer	Human - inhalation	Long term	DNEL	89	mg/m3	
Consumer	Human - oral	Long term	DNEL	26	mg/kg	(1 d)
Workers / employees	Human - dermal	Long term	DNEL	888	mg/kg	(1 d)
Workers / employees	Human - inhalation	Long term	DNEL	500	mg/m3	

Ethanol

Area of application	Exposure route / Environmental compartment	Effect on health	Descriptor	Value	Unit	Note
	Environment - freshwater		PNEC	0,96	mg/l	
	Environment - marine		PNEC	0,79	mg/l	
	Environment - water, sporadic (intermittent) release		PNEC	2,75	mg/l	
	Environment - sewage treatment plant		PNEC	580	mg/l	
	Environment - sediment, freshwater		PNEC	3,6	mg/kg	
	Environment - soil		PNEC	0,63	mg/kg dry weight	
	Environment - oral (animal feed)		PNEC	0,72	mg/kg feed	
	Environment - sediment, marine		PNEC	2,9	mg/kg dry weight	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	950	mg/m3	
Consumer	Human - dermal	Short term, local effects	DNEL	950	mg/m3	
Consumer	Human - inhalation	Long term, systemic effects	DNEL	114	mg/m3	
Consumer	Human - oral	Long term, systemic effects	DNEL	87	mg/kg	
Consumer	Human - dermal	Long term, systemic effects	DNEL	206	mg/kg bw/d	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	1900	mg/m3	
Workers / employees	Human - inhalation	Short term, local effects	DNEL	950	mg/m3	
Workers / employees	Human - dermal	Long term, systemic effects	DNEL	343	mg/kg bw/d	

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. EN 14042.
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:
With danger of contact with eyes.
Tight fitting protective goggles with side protection (EN 166).

Skin protection - Hand protection:
Normally not necessary.
In case of direct contact with the ingredients:
If applicable
Protective nitrile gloves (EN 374)
Minimum layer thickness in mm:
0,4
Permeation time (penetration time) in minutes:
> 480
The breakthrough times determined in accordance with EN 374 Part 3 were not obtained under practical conditions.
The recommended maximum wearing time is 50% of breakthrough time.
Protective gloves made of polyvinyl alcohol (EN 374)
Protective Viton® / fluoroelastomer gloves (EN 374)
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.
If OES or MEL is exceeded.
Filter A2 P2 (EN 14387), code colour brown, white
At high concentrations:
Respiratory protection appliance (insulation device) (e.g. EN 137 or EN 138)
Observe wearing time limitations for respiratory protection equipment.

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:	Aerosol. Active substance: liquid.
Colour:	Clear
Odour:	Alcoholic
Odour threshold:	Not determined
pH-value:	Not determined
Melting point/freezing point:	Not determined
Initial boiling point and boiling range:	Not determined
Flash point:	Not determined
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Lower explosive limit:	1,5 Vol-% (Propellant gas)
Upper explosive limit:	10,9 Vol-% (Propellant gas)
Vapour pressure:	Not determined
Vapour density (air = 1):	Not determined
Density:	0,65 - 0,7 g/cm3 (20°C)
Bulk density:	n.a.
Solubility(ies):	Not determined
Water solubility:	partially
Partition coefficient (n-octanol/water):	Not determined
Auto-ignition temperature:	~365 °C (Propellant gas, Ignition temperature)
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Product is not explosive. When using: development of explosive vapour/air mixture possible.
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 dangerous reactions are known.

10.4 Conditions to avoid
Heating, open flame, ignition sources
Pressure increase will result in danger of bursting.

10.5 Incompatible materials
Avoid contact with strong oxidizing agents.

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).

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:						n.d.a.
Acute toxicity, by dermal route:						n.d.a.
Acute toxicity, by inhalation:						n.d.a.
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 - 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.

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat		Analogous conclusion
Acute toxicity, by oral route:	LD50	>5000	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	Analogous conclusion
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit		Analogous conclusion
Acute toxicity, by dermal route:	LD50	>5000	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	Analogous conclusion
Acute toxicity, by inhalation:	LC50	>54	mg/l/4h	Rat		
Acute toxicity, by inhalation:	LC50	>4951	mg/m3/4 h	Rat	OECD 403 (Acute Inhalation Toxicity)	Analogous conclusion, Maximum achievable concentration.
Acute toxicity, by inhalation:	LD50	>20	mg/l/4h	Rat		Analogous conclusion
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Mild irritant (Analogous conclusion)
Respiratory or skin sensitisation:				Guinea pig		Not sensitizising (Analogous conclusion)
Germ cell mutagenicity:						Negative, Analogous conclusion
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	No indications of such an effect.
Carcinogenicity:					OECD 453 (Combined Chronic Toxicity/Carcinogenicity Studies)	No indications of such an effect.

Reproductive toxicity:					OECD 414 (Prenatal Developmental Toxicity Study)	No indications of such an effect.
Specific target organ toxicity - single exposure (STOT-SE):						May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure (STOT-RE):					OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	No indications of such an effect.
Aspiration hazard:						Yes
Symptoms:						drowsiness, unconsciousness, heart/circulatory disorders, headaches, cramps, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.

Propan-2-ol

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	4570-5840	mg/kg	Rat	OECD 401 (Acute Oral Toxicity)	
Acute toxicity, by dermal route:	LD50	13900	mg/kg	Rabbit	OECD 402 (Acute Dermal Toxicity)	
Acute toxicity, by inhalation:	LC50	30	mg/l/4h	Rat		
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Eye Irrit. 2
Respiratory or skin sensitisation:				Guinea pig	OECD 406 (Skin Sensitisation)	Not sensitizising
Germ cell mutagenicity:				Salmonella typhimurium	(Ames-Test)	Negative
Carcinogenicity:						Negative
Reproductive toxicity:						Negative
Specific target organ toxicity - repeated exposure (STOT-RE):						Target organ(s): liver
Symptoms:						breathing difficulties, unconsciousness, vomiting, headaches, fatigue, dizziness, nausea
Specific target organ toxicity - repeated exposure (STOT-RE), oral:	NOAEL	900	mg/kg	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	

Isopropyl acetate

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	6750	mg/kg	Rat		
Acute toxicity, by dermal route:	LD50	>20000	mg/kg	Rabbit		
Acute toxicity, by inhalation:	LC50	68-136	mg/l	Rat		
Skin corrosion/irritation:						Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation:				Rabbit		Irritant
Respiratory or skin sensitisation:				Guinea pig		Not sensitizising
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Symptoms:						lack of appetite, eyes, reddened, drowsiness, unconsciousnes s, cornea opacity, headaches, drowsiness, mucous membrane irritation, dizziness, nausea and vomiting.

Ethanol

Toxicity / effect	Endpoint	Value	Unit	Organism	Test method	Notes
Acute toxicity, by oral route:	LD50	10470	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:	LC50	95,6-125	mg/l/4h	Rat	OECD 403 (Acute Inhalation Toxicity)	
Skin corrosion/irritation:				Rabbit	OECD 404 (Acute Dermal Irritation/Corrosion)	Not irritant
Serious eye damage/irritation:				Rabbit	OECD 405 (Acute Eye Irritation/Corrosion)	Mild irritant
Respiratory or skin sensitisation:				Mouse	OECD 429 (Skin Sensitisation - Local Lymph Node Assay)	Not sensitizising
Germ cell mutagenicity:				Mouse	OECD 476 (In Vitro Mammalian Cell Gene Mutation Test)	Negative
Germ cell mutagenicity:				Salmonella typhimurium	OECD 471 (Bacterial Reverse Mutation Test)	Negative
Carcinogenicity:	NOAEL	>3000	mg/kg	Rat	OECD 451 (Carcinogenicity Studies)	24 mon
Reproductive toxicity:	NOAEL	5200	mg/kg bw/d	Rat		

Specific target organ toxicity - repeated exposure (STOT-RE):	NOAEL	1730	mg/kg/d	Rat	OECD 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)	Female
Specific target organ toxicity - repeated exposure (STOT-RE):	NOAL	>20	mg/l	Rat	OECD 403 (Acute Inhalation Toxicity)	Male
Aspiration hazard:				Human being		No indications of such an effect.
Symptoms:						respiratory distress, drowsiness, unconsciousness, drop in blood pressure, vomiting, coughing, headaches, intoxication, drowsiness, mucous membrane irritation, dizziness, nausea
Experiences in humans:						Excessive alcohol consumption during pregnancy induces the foetus alcohol syndrome (reduced weight at birth, physical and mental disorders)., There is no sign that this syndrome is also caused by dermal or inhalative absorption.

Butane						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative

Symptoms:						ataxia, breathing difficulties, drowsiness, unconsciousness, frostbite, disturbed heart rhythm, headaches, cramps, intoxication, dizziness, nausea and vomiting.

Propane						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Reproductive toxicity (Developmental toxicity):	NOAEC	21,641	mg/l		OECD 422 (Combined Repeated Dose Tox. Study with the Reproduction/Developm. Tox. Screening Test)	
Symptoms:						breathing difficulties, unconsciousness, frostbite, headaches, cramps, mucous membrane irritation, dizziness, nausea and vomiting.

Isobutane						
Toxicity / effect	**Endpoint**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
Acute toxicity, by inhalation:	LC50	658	mg/l/4h	Rat		
Serious eye damage/irritation:				Rabbit		Not irritant
Germ cell mutagenicity:					OECD 471 (Bacterial Reverse Mutation Test)	Negative
Symptoms:						unconsciousness, frostbite, headaches, cramps, dizziness, nausea and vomiting.

SECTION 12: Ecological information

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

Toko Proof & Care							
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:							n.d.a.
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.

Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclics, < 2% aromatics							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LL50	96h	>10-<30	mg/l	Oncorhynchus mykiss		
12.1. Toxicity to daphnia:	EC50		>10-100	mg/l			
12.1. Toxicity to daphnia:	NOEC/NOEL		>0,1-<=1,0	mg/l			
12.1. Toxicity to daphnia:	NOEC/NOEL	21d	0,317	mg/l	Daphnia magna		
12.1. Toxicity to daphnia:	EL50	48h	>22-<46	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	IC50		>100	mg/l			
12.1. Toxicity to algae:	EL50		>1000	mg/l	Pseudokirchneriella subcapitata		
12.1. Toxicity to algae:	NOELR	72h	<1	mg/l	Pseudokirchneriella subcapitata	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:							Readily biodegradable
12.2. Persistence and degradability:		28d	89	%		OECD 301 F (Ready Biodegradability - Manometric Respirometry Test)	Readily biodegradable
12.2. Persistence and degradability:	ThOD	28d	53-55	%			Biodegradable
12.3. Bioaccumulative potential:	Log Pow		4-5,7				
12.4. Mobility in soil:							Product floats on the water surface.
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50		>1000	mg/l			

Other information:	AOX						Does not contain any organically bound halogens which can contribute to the AOX value in waste water.
Water solubility:			~ 0,04	g/l			Insoluble20°C

Propan-2-ol							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	96h	1400	mg/l	Lepomis macrochirus		
12.1. Toxicity to daphnia:	EC50	48h	2285	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	>100	mg/l	Desmodesmus subspicatus		
12.2. Persistence and degradability:			99,9	%		OECD 303 A (Simulation Test - Aerobic Sewage Treatment - Activated Sludge Units)	
12.2. Persistence and degradability:		21d	95	%		OECD 301 E (Ready Biodegradability - Modified OECD Screening Test)	
12.3. Bioaccumulative potential:	Log Pow		0,05			OECD 107 (Partition Coefficient (n-octanol/water) - Shake Flask Method)	
12.4. Mobility in soil:	Koc		1,1				expert judgement
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:	EC50		>1000	mg/l	activated sludge		
Other information:	BOD		1171	mg/g			
Other information:	BOD5		53	%			
Other information:	COD		2,4	g/g			
Other information:	COD		96	%			References
Other information:	ThOD		2,4	g/g			

Isopropyl acetate							
Toxicity / effect	**Endpoint**	**Time**	**Value**	**Unit**	**Organism**	**Test method**	**Notes**
12.1. Toxicity to fish:	LC50	48h	265	mg/l	Leuciscus idus		
12.1. Toxicity to daphnia:	EC50	24h	4150	mg/l	Daphnia magna	OECD 202 (Daphnia sp. Acute Immobilisation Test)	
12.1. Toxicity to algae:	IC5	8d	165	mg/l	Scenedesmus quadricauda		

12.3. Bioaccumulative potential:	Log Pow		1,03				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							n.a.
Toxicity to bacteria:	EC5	16h	190	mg/l	Pseudomonas putida		
Other information:	COD		1670	mg/g			
Water solubility:			18,9	g/l			

Ethanol

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	13000	mg/l	Oncorhynchus mykiss	OECD 203 (Fish, Acute Toxicity Test)	
12.1. Toxicity to daphnia:	LC50	48h	12340	mg/l	Daphnia magna		
12.1. Toxicity to algae:	EC50	72h	275	mg/l	Chlorella vulgaris	OECD 201 (Alga, Growth Inhibition Test)	
12.2. Persistence and degradability:			97	%		OECD 301 B (Ready Biodegradability - Co2 Evolution Test)	
12.3. Bioaccumulative potential:	BCF		0,66 - 3,2				
12.3. Bioaccumulative potential:	Log Pow		-0,32				Bioaccumulation is unlikely (LogPow < 1).
12.4. Mobility in soil:	H (Henry)		0,000138				
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance
Toxicity to bacteria:			440	mg/l			
Other organisms:	NOEC/NOEL		280	mg/l	Lemna gibba	OECD 201 (Alga, Growth Inhibition Test)	

Butane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes
12.1. Toxicity to fish:	LC50	96h	24,11	mg/l		QSAR	
12.1. Toxicity to daphnia:	LC50	48h	14,22	mg/l		QSAR	
12.3. Bioaccumulative potential:	Log Pow		2,98				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

Propane

Toxicity / effect	Endpoint	Time	Value	Unit	Organism	Test method	Notes

12.3. Bioaccumulative potential:	Log Pow		2,28				A notable biological accumulation potential is not to be expected (LogPow 1-3).
12.5. Results of PBT and vPvB assessment							No PBT substance, No vPvB substance

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)
16 05 04 gases in pressure containers (including halons) containing hazardous substances
Recommendation:
Sewage disposal shall be discouraged.
Pay attention to local and national official regulations.
Take full aerosol cans to problem waste collection.
Take emptied aerosol cans to valuable material collection.
For contaminated packing material
Pay attention to local and national official regulations.
Recommendation:
Do not perforate, cut up or weld uncleaned container.
Recycling
15 01 04 metallic packaging

SECTION 14: Transport information

General statements
14.1. UN number: 1950
Transport by road/by rail (ADR/RID)
14.2. UN proper shipping name:
UN 1950 AEROSOLS
14.3. Transport hazard class(es): 2.1

14.4. Packing group: -
Classification code: 5F
LQ: 1 L
14.5. Environmental hazards: Not applicable
Tunnel restriction code: D
Transport by sea (IMDG-code)
14.2. UN proper shipping name:
AEROSOLS
14.3. Transport hazard class(es): 2.1

14.4. Packing group: -
EmS: F-D, S-U
Marine Pollutant: n.a
14.5. Environmental hazards: Not applicable
Transport by air (IATA)
14.2. UN proper shipping name:
Aerosols, flammable
14.3. Transport hazard class(es): 2.1

14.4. Packing group: -
14.5. Environmental hazards: Not applicable

14.6. Special precautions for user
Persons employed in transporting dangerous goods must be trained.
All persons involved in transporting must observe safety regulations.
Precautions must be taken to prevent damage.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Freighted as packaged goods rather than in bulk, therefore not applicable.
Minimum amount regulations have not been taken into account.
Danger code and packing code on request.
Comply with special provisions.

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): 99 %

Observe youth employment law (German regulation).

15.2 Chemical safety assessment
A chemical safety assessment is not provided for mixtures.

SECTION 16: Other information

Revised sections: 2,16
These details refer to the product as it is delivered.
Employee instruction/training in handling hazardous materials is required.
Employee training in handling dangerous goods 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.
STOT SE 3, H336	Classification according to calculation procedure.
Aquatic Chronic 3, H412	Classification according to calculation procedure.
Aerosol 1, H222	Classification according to calculation procedure.
Asp. Tox. 1, H304	Classification according to calculation procedure.
Aerosol 1, H229	Classification based on the form or physical state.

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).
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H412 Harmful to aquatic life with long lasting effects.

Eye Irrit. — Eye irritation
STOT SE — Specific target organ toxicity - single exposure - narcotic effects
Aquatic Chronic — Hazardous to the aquatic environment - chronic
Aerosol — Aerosols
Asp. Tox. — Aspiration hazard
Flam. Liq. — Flammable liquid

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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