

## Safety Data Sheet

according to UK REACH Regulation

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Revision date: 27.02.2023

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

#### 1.1. Product identifier

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

##### Use of the substance/mixture

Cleaner

##### Uses advised against

Any non-intended use.

#### 1.3. Details of the supplier of the safety data sheet

Company name:	Meusburger Georg GmbH & Co KG	
Street:	Kesselstrasse 42	
Place:	A-6960 Wolfurt	
Telephone:	+43 5574 6706-0	Telefax: +43 5574 6706-12
e-mail:	office@meusburger.com	
Internet:	www.meusburger.com	
Responsible Department:	Dr. Gans-Eichler Chemieberatung GmbH Otto-Hahn-Str. 36 D-48161 Muenster	e-mail: info@tge-consult.de Tel.: +49 2534 41594-0 www.tge-consult.de

#### 1.4. Emergency telephone number:

Poison Information Center Mainz, Germany, Tel: +49(0)6131/19240

#### Further Information

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### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GB CLP Regulation

Aerosol 1; H222-H229  
Eye Dam. 1; H318  
Skin Sens. 1; H317

Full text of hazard statements: see SECTION 16.

#### 2.2. Label elements

##### GB CLP Regulation

##### Hazard components for labelling

Alcohols C9-11-iso-, C10-rich, ethxylated 2.5-5 EO  
N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-beta-alanine

Signal word: Danger

##### Pictograms:



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### Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.

### Precautionary statements

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.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER/doctor.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

### 2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop. The substances in the mixture (> 0.1%) do not meet the PBT/vPvB criteria according to UK REACH. This product does not contain a substance (> 0.1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

CAS No	Chemical name	Quantity
EC No	GHS Classification	
REACH No		
Index No		
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	2 - < 5 %
203-905-0	Acute Tox. 3, Acute Tox. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2; H331 H311 H302 H315 H319	
01-2119475108-36		
603-014-00-0		
78330-20-8	Alcohols C9-11-iso-, C10-rich, ethylated 2.5-5 EO	2 - < 5 %
	Acute Tox. 4, Eye Dam. 1; H302 H318	
64265-45-8	N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-beta-alanine	1 - < 3 %
264-761-2	Eye Irrit. 2, Skin Sens. 1; H319 H317	

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78-78-4	isopentane; 2-methylbutane	< 0,2 %
201-142-8	Flam. Liq. 1, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H224 H336 H304 H411 EUH066	
01-2119475602-38		
601-085-00-2		

Full text of H and EUH statements: see section 16.

### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
Specific Conc. Limits, M-factors and ATE			
111-76-2	203-905-0	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	2 - < 5 %
inhalation: ATE 3 mg/l (vapours); dermal: LD50 = =< 2000 mg/kg; oral: ATE 1200 mg/kg			
78330-20-8		Alcohols C9-11-iso-, C10-rich, ethxylated 2.5-5 EO	2 - < 5 %
oral: LD50 = 500-2000 mg/kg			
64265-45-8	264-761-2	N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-beta-alanine	1 - < 3 %
dermal: LD50 = >2000 mg/kg; oral: LD50 = >2000 mg/kg			
78-78-4	201-142-8	isopentane; 2-methylbutane	< 0,2 %
inhalation: LC50 = > 25,3 mg/l (vapours); oral: LD50 = > 2000 mg/kg			

### Labelling for contents according to Regulation (EC) No 648/2004

< 5 % non-ionic surfactants, < 5 % amphoteric surfactants.

### Further Information

Product does not contain listed SVHC substances > 0.1 % according to UK REACH.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Do not leave affected person unattended. Remove victim out of the danger area. If unconscious place in recovery position and seek medical advice. Take off immediately all contaminated clothing. First aider: Pay attention to self-protection!

#### After inhalation

In case of accident by inhalation: remove casualty to fresh air and keep at rest. In case of respiratory tract irritation, consult a physician.

#### After contact with skin

Gently wash with plenty of soap and water. In case of skin irritation, seek medical treatment. Take off immediately all contaminated clothing.

#### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

#### After ingestion

If swallowed, immediately drink: Water. Never give anything by mouth to an unconscious person or a person with cramps. Do NOT induce vomiting. Caution if victim vomits: Risk of aspiration! Call a physician immediately.

### 4.2. Most important symptoms and effects, both acute and delayed

Serious eye damage/eye irritation. Allergic reactions.

### 4.3. Indication of any immediate medical attention and special treatment needed

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Treat symptomatically.

### SECTION 5: Firefighting measures

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Carbon dioxide (CO<sub>2</sub>). Dry extinguishing powder. Alcohol resistant foam. Atomized water.

##### **Unsuitable extinguishing media**

High power water jet.

#### **5.2. Special hazards arising from the substance or mixture**

Combustible. Vapours may form explosive mixtures with air. Can be released in case of fire: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO).

#### **5.3. Advice for firefighters**

In case of fire: Wear self-contained breathing apparatus.

#### **Additional information**

Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains. In case of fire and/or explosion do not breathe fumes.

### SECTION 6: Accidental release measures

#### **6.1. Personal precautions, protective equipment and emergency procedures**

##### **General advice**

Ventilate affected area. Remove all sources of ignition. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

##### **For non-emergency personnel**

Wear personal protection equipment (refer to section 8).  
Remove persons to safety.

##### **For emergency responders**

Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Explosion hazard. Eliminate leaks immediately. Prevent spread over a wide area (e.g. by containment or oil barriers). In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

#### **6.3. Methods and material for containment and cleaning up**

##### **For containment**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
Treat the recovered material as prescribed in the section on waste disposal.

##### **For cleaning up**

Clean contaminated objects and areas thoroughly observing environmental regulations.

#### **6.4. Reference to other sections**

Safe handling: see section 7  
Personal protection equipment: see section 8  
Disposal: see section 13

### SECTION 7: Handling and storage

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### 7.1. Precautions for safe handling

#### Advice on safe handling

Use only in well-ventilated areas. Take precautionary measures against static discharges. Do not spray on naked flames or any incandescent material. Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.

Wear suitable protective clothing. (See section 8.)

#### Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

#### Advice on general occupational hygiene

Always close containers tightly after the removal of product.

Do not eat, drink, smoke or sneeze at the workplace.

Wash hands before breaks and after work.

#### Further information on handling

Avoid generation of dust. Provide adequate ventilation as well as local exhaustion at critical locations.

General protection and hygiene measures: refer to chapter 8

### 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Store only in original container.

#### Hints on joint storage

Do not store together with: Explosives. Oxidizing solids. Oxidizing liquids. Acid. Radioactive substances.

Infectious substances. Food and animal feedingstuff.

#### Further information on storage conditions

Recommended storage temperature: 10-30 °C. Do not store at temperatures over: 50 °C

Note: Storage requirements for flammable aerosols.

### 7.3. Specific end use(s)

See section 1.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Exposure limits (EH40)

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
111-76-2	2-Butoxyethanol	25	123		TWA (8 h)	WEL
		50	246		STEL (15 min)	WEL
78-78-4	Isopentane	600	1800		TWA (8 h)	WEL

#### Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
111-76-2	2-Butoxyethanol	butoxyacetic acid (creatinine)	240 mmol/mol	urine	Post shift

#### DNEL/DMEL values

CAS No	Substance
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DNEL type	Exposure route	Effect	Value
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve		
Worker DNEL, long-term	inhalation	systemic	98 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	systemic	1091 mg/m <sup>3</sup>
Worker DNEL, acute	inhalation	local	246 mg/m <sup>3</sup>
Worker DNEL, long-term	dermal	systemic	125 mg/kg bw/day
Worker DNEL, acute	dermal	systemic	89 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	6,3 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	26,7 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	59 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	systemic	426 mg/m <sup>3</sup>
Consumer DNEL, acute	inhalation	local	147 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	75 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	89 mg/kg bw/day
78-78-4	isopentane; 2-methylbutane		
Worker DNEL, long-term	inhalation	systemic	3000 mg/m <sup>3</sup>
Consumer DNEL, long-term	inhalation	systemic	643 mg/m <sup>3</sup>
Consumer DNEL, long-term	dermal	systemic	214 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	214 mg/kg bw/day
Worker DNEL, long-term	dermal	systemic	432 mg/kg bw/day

### PNEC values

CAS No	Substance	Value
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	
Freshwater		8,8 mg/l
Freshwater (intermittent releases)		9,1 mg/l
Marine water		0,88 mg/l
Freshwater sediment		34,6 mg/kg
Marine sediment		3,46 mg/kg
Secondary poisoning		0,02 mg/kg
Micro-organisms in sewage treatment plants (STP)		463 mg/l
Soil		2,33 mg/kg

### 8.2. Exposure controls



#### Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection

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equipment.

If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

### Individual protection measures, such as personal protective equipment

#### Eye/face protection

Eye glasses with side protection. DIN EN 166

#### Hand protection

In case of prolonged or frequently repeated skin contact: Wear suitable gloves.

Suitable material:

Butyl rubber. (0,5 mm)

Breakthrough time >480 min

Penetration time (maximum wearing period): >160 min

The selected protective gloves have to satisfy the specifications of the Personal Protective Equipment at Work (Amendment) Regulations 2022 and the standard EN ISO 374.

Check leak tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well.

#### Skin protection

Protective clothing.

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500 (D).

#### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at:

Exceeding exposure limit values

Insufficient ventilation

Suitable respiratory protective equipment: Protective respiration apparatus not using surrounding air (breathing apparatus) (DIN EN 133).

Use only respiratory protection equipment with CE-symbol including four digit test number.

#### Thermal hazards

No special precautionary measures are necessary.

#### Environmental exposure controls

Do not allow uncontrolled discharge of product into the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Aerosol	
Colour:	clear	
Odour:	characteristic	
Odour threshold:	not determined	
Melting point/freezing point:		~ -42 °C
Boiling point or initial boiling point and boiling range:		~ 100 °C
Flammability:		not determined
Lower explosion limits:		~ 1,5 vol. %
Upper explosion limits:		~ 10,5 vol. %
Flash point:		~ -80 °C
Auto-ignition temperature:		not determined

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Decomposition temperature:	not determined
pH-Value (at 20 °C):	11
Viscosity / kinematic:	not determined
Water solubility: (at 20 °C)	completely miscible
Solubility in other solvents not determined	
Dissolution rate:	not relevant
Partition coefficient n-octanol/water:	not determined
Dispersion stability:	not relevant
Vapour pressure:	not determined
Density (at 20 °C):	1 g/cm <sup>3</sup>
Bulk density:	not determined
Relative vapour density:	not determined
Particle characteristics:	not determined

### **9.2. Other information**

#### **Information with regard to physical hazard classes**

##### Explosive properties

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

##### Sustaining combustion:

No data available

##### Self-ignition temperature

Solid:

not relevant

Gas:

not determined

##### Oxidizing properties

none

#### **Other safety characteristics**

##### Evaporation rate:

not determined

##### Solvent separation test:

not determined

##### Solvent content:

not determined

##### Solid content:

not determined

##### Sublimation point:

not determined

##### Softening point:

not determined

##### Pour point:

not determined

##### Viscosity / dynamic:

not determined

##### Flow time:

not determined

## SECTION 10: Stability and reactivity

### **10.1. Reactivity**

Pressurised container: May burst if heated. Extremely flammable aerosol.

### **10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

### **10.3. Possibility of hazardous reactions**

No hazardous reaction when handled and stored according to provisions.

Refer to chapter 10.5.

### **10.4. Conditions to avoid**

Protect against: UV-radiation/sunlight. heat, flames and sparks.



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### 10.5. Incompatible materials

Materials to avoid: Oxidizing agents, strong. Acid.

### 10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

### Further information

In use, may form flammable/explosive vapour-air mixture.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in GB CLP Regulation

#### Toxicokinetics, metabolism and distribution

No information available.

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### ATEmix calculated

ATE (oral) 7382,0 mg/kg; ATE (dermal) 6000,1 mg/kg; ATE (inhalation vapour) 60,00 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve				
	oral	ATE 1200 mg/kg			
	dermal	LD50 =< 2000 mg/kg	Rabbit/Guinea-pig.	ECHA dossier/RAC	OECD 402
	inhalation vapour	ATE 3 mg/l			
78330-20-8	Alcohols C9-11-iso-, C10-rich, ethxylated 2.5-5 EO				
	oral	LD50 500-2000 mg/kg	Rat		
64265-45-8	N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-beta-alanine				
	oral	LD50 >2000 mg/kg	Rat	ECHA dossier	OECD 423
	dermal	LD50 >2000 mg/kg	Rat	ECHA dossier	OECD 402
78-78-4	isopentane; 2-methylbutane				
	oral	LD50 > 2000 mg/kg	Rat	ECHA dossier	OECD 401
	inhalation (4 h) vapour	LC50 > 25,3 mg/l	Rat	ECHA dossier	OECD 403

#### Irritation and corrosivity

Causes serious eye damage.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

#### Sensitising effects

May cause an allergic skin reaction. (N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-beta-alanine)

#### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

2-butoxyethanol; ethylene glycol monobutyl ether:

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In-vitro mutagenicity: Method: OECD Guideline 476 (In Vitro Mammalian Cell Gene Mutation Test); Result: negative.

Literature information: ECHA dossier

Carcinogenicity: Method: OECD Guideline 451 (Carcinogenicity Studies); Species: Mouse.; Exposure duration: 2 years; Result: NOAEC = 125 ppm

Literature information: ECHA dossier

Reproductive toxicity: Method: other guideline: National Toxicology Programme Continuous Breeding Protocol; Species: Mouse.; Exposure duration: 90 d. Results: NOAEL = 720 mg/kg

Literature information: ECHA dossier

Developmental toxicity/teratogenicity: Method: OECD Guideline 414 (Prenatal Developmental Toxicity Study); Species: Rabbit.; Exposure duration: 13 d. Results: NOAEL = 100 ppm.

Literature information: ECHA dossier

isopentane; 2-methylbutane:

In vitro mutagenicity/genotoxicity

Method: OECD 471 (Ames test).

Result / evaluation: negative.

In vivo mutagenicity/genotoxicity

Method: EU Method B.12

Result / evaluation: negative.

Reproductive toxicity

Method: OECD 416.

Species: Rat.

Exposure duration: 10w.

Result: NOAEC= 7000 ppm

Literature information: ECHA dossier

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

2-butoxyethanol; ethylene glycol monobutyl ether:

Subchronic oral toxicity: Method: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents); Species: Rat; Exposure duration: 90 d. Result: NOAEL =< 69 mg/kg

Literature information: ECHA dossier

Subchronic dermal toxicity: Method: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-day Study);

Species: Rabbit (male/female.); Exposure duration: 90 d. Result: NOAEL => 150 mg/kg

Literature information: ECHA dossier

isopentane; 2-methylbutane:

Subchronic inhalative toxicity

Method: OECD 413.

Species: Rat.

Exposure duration: 90 d.

Result: NOEC= >2220 ppm.

Literature information: ECHA dossier

**Aspiration hazard**

Based on available data, the classification criteria are not met.

**Specific effects in experiment on an animal**

No information available.

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### 11.2. Information on other hazards

#### Endocrine disrupting properties

This product does not contain a substance (> 0.1 %) that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### Other information

No data available.

## SECTION 12: Ecological information

### 12.1. Toxicity

The product has not been tested.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve					
	Acute fish toxicity	LC50 mg/l	1474	96 h	Oncorhynchus mykiss (Rainbow trout)	ECHA dossier OECD 203
	Acute algae toxicity	ErC50	911 mg/l	72 h	Pseudokirchnerella subcapitata	ECHA dossier OECD 201
	Acute crustacea toxicity	EC50 mg/l	1800	48 h	Daphnia magna	ECHA dossier OECD 202
	Fish toxicity	NOEC mg/l	>100	21 d	Danio rerio	ECHA dossier OECD 204
	Algae toxicity	NOEC	88 mg/l	3 d	Pseudokirchneriella subcapitata	ECHA dossier
	Crustacea toxicity	NOEC	100 mg/l	21 d	Daphnia magna	ECHA dossier OECD 211
78330-20-8	Alcohols C9-11-iso-, C10-rich, ethxylated 2.5-5 EO					
	Acute fish toxicity	LC50 mg/l	>100	96 h	Leuciscus idus	DIN 38412-15
	Acute algae toxicity	ErC50 mg/l	>100	96 h	Scenedesmus subspicatus	DIN 38412-9
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	Daphnia Magna	DIN 38412-12
64265-45-8	N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-beta-alanine					
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Cyprinus carpio (Common Carp)	ECHA dossier OECD 203
	Acute algae toxicity	ErC50	(65) mg/l	72 h	Pseudokirchneriella subcapitata	ECHA dossier OECD 201
	Acute crustacea toxicity	EC50 mg/l	> 100	48 h	Daphnia magna (Big water flea)	ECHA dossier OECD 202
	Acute bacteria toxicity	(EC50 mg/l)	> 100	3 h	Activated sludge	ECHA dossier OECD 209
78-78-4	isopentane; 2-methylbutane					
	Acute fish toxicity	LC50 mg/l	4,26	96 h	Oncorhynchus mykiss	ECHA dossier OECD 203
	Acute algae toxicity	ErC50 mg/l	1,26	72 h	Scenedesmus capricornutum	ECHA dossier OECD 201
	Acute crustacea toxicity	EC50	2,3 mg/l	48 h	Daphnia magna	ECHA dossier OECD 202

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	Fish toxicity	NOEC mg/l	7,618	28 d	Oncorhynchus mykiss	ECHA dossier	QSAR
	Crustacea toxicity	NOEC mg/l	13,29	21 d	Daphnia magna	ECHA dossier	QSAR

### 12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve			
	OECD 301B / ISO 9439 / EEC 92/69 annex V, C.4-C	90,4%	28	ECHA dossier
	Easily biodegradable (concerning to the criteria of the OECD)			
78-78-4	isopentane; 2-methylbutane			
	OECD 301F / ISO 9408 / EEC 92/69 annex V, C.4-D	71,4	28	ECHA dossier
	Easily biodegradable (concerning to the criteria of the OECD)			

### 12.3. Bioaccumulative potential

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
111-76-2	2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve	0,81
64265-45-8	N-(2-hydroxyethyl)-N-[2-[(1-oxooctyl)amino]ethyl]-beta-alanine	1,1
78-78-4	isopentane; 2-methylbutane	4

#### BCF

CAS No	Chemical name	BCF	Species	Source
78-78-4	isopentane; 2-methylbutane	171	Pimephales promelas	ECHA dossier

### 12.4. Mobility in soil

No information available.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1 %.

### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

The aforementioned statement applies to substances contained in the product with a minimum content of 0.1 %.

### 12.7. Other adverse effects

No information available.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

#### Disposal recommendations

Dispose of waste according to applicable legislation.

Non-contaminated packages may be recycled.

According to (EWC) European Waste Catalogue, allocation of waste identity numbers/waste descriptions must

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be carried out in a specific way for every industry and process.

Control report for waste code/ waste marking according to (EWC) European Waste Catalogue:

### List of Wastes Code - residues/unused products

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

### List of Wastes Code - used product

160504 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; gases in pressure containers (including halons) containing hazardous substances; hazardous waste

### List of Wastes Code - contaminated packaging

150111 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers; hazardous waste

### Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

## SECTION 14: Transport information

### Land transport (ADR/RID)

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1



Classification code: 5F  
 Special Provisions: 190 327 344 625  
 Limited quantity: 1 L  
 Excepted quantity: E0  
 Transport category: 2  
 Tunnel restriction code: D

### Inland waterways transport (ADN)

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2  
**14.4. Packing group:** -  
 Hazard label: 2.1



Classification code: 5F  
 Special Provisions: 190 327 344 625  
 Limited quantity: 1 L

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Excepted quantity: E0

### Marine transport (IMDG)

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
 Hazard label: 2.1



Marine pollutant: NO  
 Special Provisions: 63, 190, 277, 327, 344, 381, 959  
 Limited quantity: 1000 mL  
 Excepted quantity: E0  
 EmS: F-D, S-U

### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number or ID number:** UN 1950  
**14.2. UN proper shipping name:** AEROSOLS, FLAMMABLE  
**14.3. Transport hazard class(es):** 2.1  
**14.4. Packing group:** -  
 Hazard label: 2.1



Special Provisions: A145 A167 A802  
 Limited quantity Passenger: 30 kg G  
 Passenger LQ: Y203  
 Excepted quantity: E0  
 IATA-packing instructions - Passenger: 203  
 IATA-max. quantity - Passenger: 75 kg  
 IATA-packing instructions - Cargo: 203  
 IATA-max. quantity - Cargo: 150 kg

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

### 14.6. Special precautions for user

Refer to section 6 - 8

### 14.7. Maritime transport in bulk according to IMO instruments

not applicable

## SECTION 15: Regulatory information

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

#### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3

2010/75/EU (VOC): 2 - 5 %

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2004/42/EC (VOC): 2 - 6 %  
 Information according to 2012/18/EU (SEVESO III): P3a FLAMMABLE AEROSOLS

### Additional information

Safety Data Sheet according to UK-REACH Regulation  
 UK Aerosols Regulation  
 UK REACH Appendix XVII, No (mixture): 3, 40  
 The mixture is classified as hazardous according to GHS (GB CLP).

### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).  
 Water hazard class (D): 1 - slightly hazardous to water

### 15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:  
 2-butoxyethanol; ethyleneglycol monobutyl ether; butyl cellosolve  
 isopentane; 2-methylbutane

## SECTION 16: Other information

### Changes

Rev. 1,0; Initial release 01.10.2021  
 Rev. 2,0; Revision 27.02.2023, Changes in chapter: 1-16

### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
 CAS: Chemical Abstracts Service  
 CLP: Classification, Labelling and Packaging of substances and mixtures  
 DNEL: Derived No Effect Level  
 d: day(s)  
 EINECS: European INventory of Existing Commercial chemical Substances  
 ELINCS: European List of Notified Chemical Substances  
 ECHA: European Chemicals Agency  
 EWC: European Waste Catalogue  
 IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER  
 IMDG: International Maritime Code for Dangerous Goods  
 IATA: International Air Transport Association  
 IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
 ICAO: International Civil Aviation Organization  
 ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
 GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)  
 h: hour  
 LOAEL: Lowest observed adverse effect level  
 LOAEC: Lowest observed adverse effect concentration  
 LC50: Lethal concentration, 50 percent  
 LD50: Lethal dose, 50 percent  
 NOAEL: No observed adverse effect level  
 NOAEC: No observed adverse effect concentration  
 NLP: No-Longer Polymers

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N/A: not applicable

OECD: Organisation for Economic Co-operation and Development

PNEC: predicted no effect concentration

PBT: Persistent bioaccumulative toxic

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail )

REACH: Registration, Evaluation, Authorisation of Chemicals

SVHC: substance of very high concern

TRGS: Technische Regeln für Gefahrstoffe

UN: United Nations

VOC: Volatile Organic Compounds

### Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Aerosol 1; H222-H229	On basis of test data
Eye Dam. 1; H318	Calculation method
Skin Sens. 1; H317	Calculation method

### Relevant H and EUH statements (number and full text)

H222	Extremely flammable aerosol.
H224	Extremely flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

### Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*