

**Safety Data Sheet**

according to UK REACH Regulation

**Air intake Cleaner/Intake System Cleaner**

Revision date: 09.03.2021

Product code: 1103434

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Air intake Cleaner/Intake System Cleaner

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Cleaner

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

Company name:	TUNAP GmbH & Co. KG	
Street:	Buergermeister-Seidl-Strasse 2	
Place:	D-82515 Wolfratshausen	
Telephone:	+49 (0) 8171/1600-0	Telefax: +49 (0) 8171/1600-40
E-mail:	sdb@tunap.com	
Internet:	www.tunap.com	

**1.4. Emergency telephone number:** 111 NHS (National Health Service)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Flam. Liq. 2; H225  
Acute Tox. 4; H312  
Acute Tox. 4; H332  
Asp. Tox. 1; H304  
Skin Corr. 1B; H314  
Eye Dam. 1; H318  
STOT SE 3; H335  
STOT SE 3; H336  
STOT RE 2; H373  
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****GB CLP Regulation****Hazard components for labelling**

xylene  
n-propanol  
Hydrocarbons, C9, aromatics  
ethylbenzene  
morpholine  
Oxirane, 2-ethyl-, homopolymer, 3-aminopropyl C11-14-isoalkyl ethers, C13-rich

**Signal word:** Danger**Pictograms:****Hazard statements**

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.



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H312+H332	Harmful in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

#### Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe spray.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear eye/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310	Immediately call a POISON CENTER/doctor.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P312	Call a POISON CENTER/doctor if you feel unwell.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER/doctor.
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.

#### 2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII. This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

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**Hazardous components**

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
1330-20-7	xylene			25 - < 50 %
	215-535-7	601-022-00-9	01-2119488216-32	
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 3; H226 H332 H312 H315 H319 H335 H373 H304 H412			
71-23-8	n-propanol			10 - < 20 %
	200-746-9	603-003-00-0	01-2119486761-29	
	Flam. Liq. 2, Eye Dam. 1, STOT SE 3; H225 H318 H336			
64742-95-6	Hydrocarbons, C9, aromatics			10 - < 20 %
	918-668-5		01-2119455851-35	
	Flam. Liq. 3, STOT SE 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H335 H336 H304 H411 EUH066			
100-41-4	ethylbenzene			10 - < 20 %
	202-849-4	601-023-00-4		
	Flam. Liq. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H225 H332 H315 H319 H335 H373 H304			
110-91-8	morpholine			5 - < 10 %
	203-815-1		01-2119496057-30	
	Flam. Liq. 3, Repr. 2, Acute Tox. 3, Acute Tox. 3, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1; H226 H361fd H331 H311 H302 H314 H318			
	Polyether amine, polymer			3 - < 5 %
	Skin Irrit. 2, Eye Irrit. 2, Aquatic Chronic 2; H315 H319 H411			
108-88-3	toluene			0.1 - < 1 %
	203-625-9	601-021-00-3	01-2119471310-51	
	Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H225 H361d H315 H336 H373 H304			

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		
1330-20-7	215-535-7	xylene	25 - < 50 %
	inhalation: LC50 = 6700 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 12126 mg/kg; oral: LD50 = 3523 mg/kg		
71-23-8	200-746-9	n-propanol	10 - < 20 %
	inhalation: LC50 = > 33,8 mg/l (vapours); dermal: LD50 = 4032 mg/kg; oral: LD50 = 8000 mg/kg		
64742-95-6	918-668-5	Hydrocarbons, C9, aromatics	10 - < 20 %
	dermal: LD50 = > 3160 mg/kg; oral: LD50 = 3592 mg/kg		
100-41-4	202-849-4	ethylbenzene	10 - < 20 %
	inhalation: LC50 = 17,2 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = 15400 mg/kg; oral: LD50 = 3500 mg/kg		
110-91-8	203-815-1	morpholine	5 - < 10 %
	inhalation: LC50 = 8 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: LD50 = ca. 500 mg/kg; oral: LD50 = ca. 1900 mg/kg		
108-88-3	203-625-9	toluene	0.1 - < 1 %
	inhalation: LC50 = 49 mg/l (vapours); dermal: LD50 = 12200 mg/kg; oral: LD50 = 5580 mg/kg		



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#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

###### General information

First aider: Pay attention to self-protection! Remove persons to safety. Never give anything by mouth to an unconscious person or a person with cramps.

###### After inhalation

Remove person to fresh air and keep comfortable for breathing. In all cases of doubt, or when symptoms persist, seek medical advice.

###### After contact with skin

Wash with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. In all cases of doubt, or when symptoms persist, seek medical advice.

###### After contact with eyes

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

###### After ingestion

Do NOT induce vomiting. Observe risk of aspiration if vomiting occurs. Call a physician in any case!

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

Headache, nausea, dizziness, fatigue, skin irritation

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

Treat symptomatically. Call a POISON CENTER. Symptoms can occur only after several hours.

#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

###### Suitable extinguishing media

Water fog. Foam. Carbon dioxide (CO<sub>2</sub>). Extinguishing powder.

###### Unsuitable extinguishing media

High power water jet.

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

Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO<sub>2</sub>, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.

##### 5.3. Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Move undamaged containers from immediate hazard area if it can be done safely. In case of fire: Wear self-contained breathing apparatus.

#### SECTION 6: Accidental release measures

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

###### General advice

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Remove all sources of ignition. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Wear personal protection equipment.

###### For non-emergency personnel

First aider: Pay attention to self-protection!

###### For emergency responders

Fight fire with normal precautions from a reasonable distance.

##### 6.2. Environmental precautions

Do not allow to enter into surface water or drains. Prevent spread over a wide area (e.g. by containment or oil barriers). Ensure all waste water is collected and treated via a waste water treatment plant.



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

##### **For containment**

Prevent spread over a wide area (e.g. by containment or oil barriers).

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

Clean contaminated articles and floor according to the environmental legislation.

##### **Other information**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Clean contaminated articles and floor according to the environmental legislation.

#### **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**

#### **7.1. Precautions for safe handling**

##### **Advice on safe handling**

Observe instructions for use.

Dust must be exhausted directly at the point of origin. Vapours/aerosols must be exhausted directly at the point of origin. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means.

When using do not eat, drink, smoke, sniff.

Wear personal protection equipment (refer to section 8).

##### **Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking.

##### **Advice on general occupational hygiene**

Avoid exposure. Wear suitable protective clothing. Draw up and observe skin protection programme.

##### **Further information on handling**

Avoid contact with skin and eyes.

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

##### **Requirements for storage rooms and vessels**

Keep container tightly closed. Observe legal regulations and provisions.

##### **Hints on joint storage**

Do not store together with: Oxidizing agents. Pyrophoric or self-heating substances. Food and feedingstuffs.

##### **Further information on storage conditions**

Store in a cool dry place. Observe legal regulations and provisions.

#### **7.3. Specific end use(s)**

Reiniger

### **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

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**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
100-41-4	Ethylbenzene	100	441		TWA (8 h)	WEL
		125	552		STEL (15 min)	WEL
110-91-8	Morpholine	10	36		TWA (8 h)	WEL
		20	72		STEL (15 min)	WEL
71-23-8	Propan-1-ol	200	500		TWA (8 h)	WEL
		250	625		STEL (15 min)	WEL
108-88-3	Toluene	50	191		TWA (8 h)	WEL
		100	384		STEL (15 min)	WEL
1330-20-7	Xylene: mixed isomers	50	220		TWA (8 h)	WEL
		100	441		STEL (15 min)	WEL

**Biological Monitoring Guidance Values (EH40)**

CAS No	Substance	Parameter	Value	Test material	Sampling time
1330-20-7	Xylene, o-, m-, p- or mixed isomers	methyl hippuric acid (creatinine)	650 mmol/mol	urine	Post shift

**DNEL/DMEL values**

CAS No	Substance	DNEL type	Exposure route	Effect	Value
1330-20-7	xylene	Worker DNEL, long-term	inhalation	systemic	221 mg/m <sup>3</sup>
		Worker DNEL, acute	inhalation	systemic	442 mg/m <sup>3</sup>
		Worker DNEL, long-term	inhalation	local	221 mg/m <sup>3</sup>
		Worker DNEL, acute	inhalation	local	442 mg/m <sup>3</sup>
		Worker DNEL, long-term	dermal	systemic	212 mg/kg bw/day
		Consumer DNEL, long-term	inhalation	systemic	65,3 mg/m <sup>3</sup>
		Consumer DNEL, acute	inhalation	systemic	260 mg/m <sup>3</sup>
		Consumer DNEL, long-term	inhalation	local	65,3 mg/m <sup>3</sup>
		Consumer DNEL, acute	inhalation	local	260 mg/m <sup>3</sup>
		Consumer DNEL, long-term	dermal	systemic	125 mg/kg bw/day
		Consumer DNEL, long-term	oral	systemic	12,5 mg/kg bw/day
110-91-8	morpholine	Worker DNEL, long-term	inhalation	systemic	91 mg/m <sup>3</sup>
		Worker DNEL, long-term	inhalation	local	36 mg/m <sup>3</sup>
		Worker DNEL, acute	inhalation	local	72 mg/m <sup>3</sup>
		Worker DNEL, long-term	dermal	systemic	1,04 mg/kg bw/day
		Consumer DNEL, long-term	oral	systemic	6,3 mg/kg bw/day

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**PNEC values**

CAS No	Substance	Value
Environmental compartment		
1330-20-7	xylene	
Freshwater		0,327 mg/l
Freshwater (intermittent releases)		0,327 mg/l
Marine water		0,327 mg/l
Freshwater sediment		12,46 mg/kg
Marine sediment		12,46 mg/kg
Micro-organisms in sewage treatment plants (STP)		6,58 mg/l
Soil		2,31 mg/kg
110-91-8 morpholine		
Freshwater		0,163 mg/l
Freshwater (intermittent releases)		0,09 mg/l
Marine water		0,016 mg/l
Freshwater sediment		1,83 mg/kg
Marine sediment		0,183 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		0,269 mg/kg

**Additional advice on limit values**

- a no restriction
- b End of exposure or end of shift
- c at long-term exposure:
- d before next shift

blood (B)  
Urine (U)

**8.2. Exposure controls****Appropriate engineering controls**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Suitable eye protection: Tightly sealed safety glasses.  
EN 166

**Hand protection**

Protect skin by using skin protective cream. When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Suitable material: NBR (Nitrile rubber) Breakthrough time: 480min  
Thickness of the glove material 0,45 mm  
EN ISO 374

**Skin protection**

Wear suitable protective clothing. Take off immediately all contaminated clothing and wash it before reuse.

**Respiratory protection**

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

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When exceeding the relevant workplace exposure limits, note the following:  
Suitable respiratory protective equipment: Combination filter device (DIN EN 141)..  
Filtering device with filter or ventilator filtering device of type: A  
Observe the wear time limits as specified by the manufacturer.  
Observe legal regulations and provisions.

**Environmental exposure controls**

Observe legal regulations and provisions.

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:

Colour: colourless

Odour: solvent like

Melting point/freezing point:

not determined

Boiling point or initial boiling point and

97 °C

boiling range:

Flammability:

not applicable

not applicable

Lower explosion limits:

0,7 vol. %

Upper explosion limits:

13,5 vol. %

Flash point:

15 °C

Auto-ignition temperature:

255 °C

Decomposition temperature:

not determined

pH-Value (at 20 °C):

Viscosity / kinematic:

DIN EN ISO 3104

(at 40 °C)

Water solubility:

The study does not need to be conducted  
because the substance is known to be  
insoluble in water.

Solubility in other solvents

not determined

Partition coefficient n-octanol/water:

not determined

Vapour pressure:

not determined

Density (at 20 °C):

DIN 51757

Relative vapour density:

not determined

**9.2. Other information****Information with regard to physical hazard classes**

Sustaining combustion:

No data available

Self-ignition temperature

Solid:

not applicable

Gas:

not applicable

Oxidizing properties

Not oxidising.

**Other safety characteristics**

Evaporation rate:

not determined

Solid content:

not determined

Sublimation point:

No information available.

Softening point:

No information available.

Pour point:

No information available.

Viscosity / dynamic:

DIN 53019-1



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Flow time:  
(at 20 °C)

DIN EN ISO 2431

**SECTION 10: Stability and reactivity****10.1. Reactivity**

Extremely flammable aerosol.

**10.2. Chemical stability**

The product is stable under normal conditions.

**10.3. Possibility of hazardous reactions**

No hazardous reaction when handled and stored according to provisions.

**10.4. Conditions to avoid**

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Vapours can form explosive mixtures with air.

**10.5. Incompatible materials**

Oxidizing agents. Pyrophoric or self-heating substances.

**10.6. Hazardous decomposition products**Incomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO<sub>2</sub>, aldehydes and soot. These can be very dangerous if they are inhaled in high concentrations or in enclosed spaces.**Further information**

Do not mix with other chemicals.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Toxicokinetics, metabolism and distribution**

There are no data available on the mixture itself.

**Acute toxicity**

Harmful in contact with skin.

Harmful if inhaled.

**ATE<sub>mix</sub> calculated**

ATE (oral) &gt; 2000 mg/kg; ATE (dermal) 1865 mg/kg; ATE (inhalation vapour) 18,69 mg/l; ATE (inhalation dust/mist) 1,989 mg/l

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CAS No	Chemical name					
	Exposure route	Dose	Species	Source	Method	
1330-20-7	xylene					
	oral	LD50 mg/kg	3523	Rat	Study report (1986)	EU Method B.1
	dermal	LD50 mg/kg	12126	Rabbit	Publication (1962)	Single dermal dose under occlusion follo
	inhalation (4 h) vapour	LC50	6700 mg/l	Rat	Toxicol Appl Pharmacol 33:543-558. (1975)	EU Method B.2
	inhalation dust/mist	ATE	1,5 mg/l			
71-23-8	n-propanol					
	oral	LD50 mg/kg	8000	Rat		
	dermal	LD50 mg/kg	4032	Rabbit		
	inhalation (4 h) vapour	LC50 mg/l	> 33,8	Rat		
64742-95-6	Hydrocarbons, C9, aromatics					
	oral	LD50 mg/kg	3592	Rat		
	dermal	LD50 mg/kg	> 3160	Rabbit		
100-41-4	ethylbenzene					
	oral	LD50 mg/kg	3500	Rat	GESTIS	
	dermal	LD50 mg/kg	15400	Rabbit	GESTIS	
	inhalation (4 h) vapour	LC50	17,2 mg/l	Rat		
	inhalation dust/mist	ATE	1,5 mg/l			
110-91-8	morpholine					
	oral	LD50 mg/kg	ca. 1900	Rat	Study report (1967)	OECD Guideline 401
	dermal	LD50 mg/kg	ca. 500	Rabbit	Arch. Ind. Hyg Occup. Med. 10 61-68 (195	OECD Guideline 402
	inhalation (4 h) vapour	LC50	8 mg/l	Rat		
	inhalation dust/mist	ATE	0,5 mg/l			
108-88-3	toluene					
	oral	LD50 mg/kg	5580	Rat		
	dermal	LD50 mg/kg	12200	Rabbit	GESTIS	
	inhalation (4 h) vapour	LC50	49 mg/l	Rat	GESTIS	

**Irritation and corrosivity**

Causes severe skin burns and eye damage.

Causes serious eye damage.

**Sensitising effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**



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

No indications of human carcinogenicity exist.

No indications of human germ cell mutagenicity exist.

No indications of human reproductive toxicity exist.

#### STOT-single exposure

May cause respiratory irritation. (xylene)

May cause drowsiness or dizziness.

#### STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (xylene; ethylbenzene)

#### Aspiration hazard

May be fatal if swallowed and enters airways.

#### Specific effects in experiment on an animal

No information available.

#### Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 11.2. Information on other hazards

##### Endocrine disrupting properties

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

### SECTION 12: Ecological information

#### 12.1. Toxicity

Harmful to aquatic life with long lasting effects.



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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
1330-20-7	xylene					
	Acute fish toxicity	LC50 8,4 mg/l	96 h	Oncorhynchus mykiss	Ecotoxicology and Environmental Safety.	OECD Guideline 203
	Acute algae toxicity	ErC50 4,9 mg/l	72 h	Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety.	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l > 3,4	48 h	Ceriodaphnia dubia	Ecotoxicology and Environmental Safety 3	other: US EPA 600/4-91-003
	Fish toxicity	NOEC mg/l > 1,3	56 d	Oncorhynchus mykiss	Appl. Sci. Branch, Eng. Res. Cent. Denve	Fish were exposed in artificial streams
	Crustacea toxicity	NOEC mg/l 1,17	7 d	Ceriodaphnia dubia	Ecotoxicology and Environmental Safety 3	other: US EPA 600/4-91-003
	Acute bacteria toxicity	(EC50 mg/l) > 175	0,5 h	Activated sludge	Research Journal WPCF 60(10) 1850-1856 (	OECD Guideline 209
71-23-8	n-propanol					
	Acute fish toxicity	LC50 mg/l 4480	96 h	Pimephales promelas		
64742-95-6	Hydrocarbons, C9, aromatics					
	Acute fish toxicity	LC50 9,2 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)		
	Acute algae toxicity	ErC50 mg/l 2,6-2,9	96 h	Pseudokirchneriella subcapitata		
	Acute crustacea toxicity	EC50 3,2 mg/l	48 h	Daphnia magna		
100-41-4	ethylbenzene					
	Acute algae toxicity	ErC50 3,6 mg/l	96 h	Pseudokirchneriella subcapitata	GESTIS	
110-91-8	morpholine					
	Acute fish toxicity	LC50 380 mg/l	96 h	Oncorhynchus mykiss	Chemosphere 9: 753-762 (1980)	other: IRSA
	Acute algae toxicity	ErC50 28 mg/l	96 h	Pseudokirchneriella subcapitata	Chemosphere 9: 753-762 (1980)	other: EPA, National Eutrophication Rese
	Acute crustacea toxicity	EC50 mg/l 44,5	48 h	Daphnia magna	Study report (1997)	OECD Guideline 202
	Algae toxicity	NOEC 10 mg/l	4 d	Desmodesmus subspicatus		
	Crustacea toxicity	NOEC 5 mg/l	21 d	Daphnia magna	Study report (1997)	OECD Guideline 211
108-88-3	toluene					
	Acute fish toxicity	LC50 13 mg/l	96 h	Carassius auratus	IUCLID	
	Acute algae toxicity	ErC50 mg/l > 433	96 h	Pseudokirchneriella subcapitata	GESTIS	
	Acute crustacea toxicity	EC50 mg/l 11,5	48 h	Daphnia magna		

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**12.2. Persistence and degradability**

The product has not been tested.

CAS No	Chemical name	Method	Value	d	Source
		Evaluation			
110-91-8	morpholine				
	OECD 301E	93%	25		
	Easily biodegradable (concerning to the criteria of the OECD)				

**12.3. Bioaccumulative potential**

The product has not been tested.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
1330-20-7	xylene	3,2
71-23-8	n-propanol	0,29
100-41-4	ethylbenzene	3,15
110-91-8	morpholine	-2,55
108-88-3	toluene	2,73

**BCF**

CAS No	Chemical name	BCF	Species	Source
1330-20-7	xylene	> 5,5 - < 12,2	Oncorhynchus mykiss	Appl. Sci. Branch, E
110-91-8	morpholine	0	Cyprinus carpio	Review article or ha

**12.4. Mobility in soil**

The product has not been tested.

**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 product has not been tested.

**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.

**12.7. Other adverse effects**

No information available.

**Further information**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Dispose of waste according to applicable legislation.

**Contaminated packaging**

Water (with cleaning agent). Completely emptied packages can be recycled.

**SECTION 14: Transport information****Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	UN 1993
<b>14.2. UN proper shipping name:</b>	FLAMMABLE LIQUID, N.O.S. (xylene@, @000000000810)
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	II

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Hazard label: 3  
Classification code: F1  
Special Provisions: 274 601 640C  
Limited quantity: 1 L  
Excepted quantity: E2  
Transport category: 2  
Hazard No: 33  
Tunnel restriction code: D/E

**Inland waterways transport (ADN)**

**14.1. UN number or ID number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S. (xylene@, @000000000810)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Classification code: F1  
Special Provisions: 274 601 640C  
Limited quantity: 1 L  
Excepted quantity: E2

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S. (xylene, 2-Propanol)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Marine pollutant: no  
Special Provisions: 274  
Limited quantity: 1 L  
Excepted quantity: E2  
EmS: F-E, S-E

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

**14.1. UN number or ID number:** UN 1993  
**14.2. UN proper shipping name:** FLAMMABLE LIQUID, N.O.S. (xylene, 2-Propanol)  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** II  
Hazard label: 3  
Special Provisions: A3  
Limited quantity Passenger: 1 L  
Passenger LQ: Y341  
Excepted quantity: E2  
IATA-packing instructions - Passenger: 353  
IATA-max. quantity - Passenger: 5 L  
IATA-packing instructions - Cargo: 364  
IATA-max. quantity - Cargo: 60 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: No

**14.6. Special precautions for user**

Warning: Flammable gases. strongly corrosive.

**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**

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**EU regulatory information**

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 28, Entry 40, Entry 48, Entry 75

2010/75/EU (VOC): No information available.

2004/42/EC (VOC): No information available.

**Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

**National regulatory information**

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

**15.2. Chemical safety assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 2,6,11,13,14.

**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)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service

LC50: Lethal concentration, 50%

LD50: Lethal dose, 50%

Flam. Liq: Flammable liquids

Acute Tox: Acute toxicity

Asp. Tox: Aspiration hazard

Skin Corr: Skin corrosion

Skin Irrit: Skin irritation

Eye Dam: Eye damage

Eye Irrit: Eye irritation

Repr: Reproductive toxicity

STOT SE: Specific target organ toxicity - single exposure

STOT RE: Specific target organ toxicity - repeated exposure

Aquatic Chronic: Chronic aquatic hazard

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

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Acute Tox. 4; H312	Calculation method
Acute Tox. 4; H332	Calculation method
Asp. Tox. 1; H304	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method
STOT SE 3; H335	Calculation method
STOT SE 3; H336	Calculation method
STOT RE 2; H373	Calculation method
Aquatic Chronic 3; H412	Calculation method

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

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H312+H332	Harmful in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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