

**938 Injector Intensive Cleaner MF93800500AB**

Print date: 28.06.2019

Product code: 1102349

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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

1.3. Details of the supplier of the safety data sheet

Company name:	TUNAP GmbH & Co. KG	
Street:	Bürgermeister-Seidl-Str. 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: +49 (0) 30 30 686 790 (Giftnotruf Berlin)**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Aerosol: Aerosol 1

Aspiration hazard: Asp. Tox. 1

Serious eye damage/eye irritation: Eye Dam. 1

Respiratory or skin sensitisation: Skin Sens. 1

Specific target organ toxicity - single exposure: STOT SE 3

Hazardous to the aquatic environment: Aquatic Chronic 2

Hazard Statements:

Extremely flammable aerosol.

Pressurised container: May burst if heated.

May be fatal if swallowed and enters airways.

Causes serious eye damage.

May cause an allergic skin reaction.

May cause drowsiness or dizziness.

Toxic to aquatic life with long lasting effects.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**

n-propanol

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

(R)-p-mentha-1,8-diene, d-limonene

Hydrocarbons, C10, aromatics, <1% naphthalene

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

H222

Extremely flammable aerosol.

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H229	Pressurised container: May burst if heated.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H336	May cause drowsiness or dizziness.
H411	Toxic 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.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe Aerosol.
P273	Avoid release to the environment.
P280	Wear eye protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P370+P380+P375	In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
P337+P313	If eye irritation persists: Get medical advice/attention.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Special labelling of certain mixtures

EUH066	Repeated exposure may cause skin dryness or cracking.
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2.3. Other hazards

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

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	
	GHS Classification			
64742-48-9	Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, < 2 % aromates			25 - < 50 %
	918-481-9		01-2119457273-39	
	Asp. Tox. 1; H304 EUH066			
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			
1174921-73-3	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics			10 - < 20 %
	927-241-2		01-2119471843-32	
	Flam. Liq. 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 3; H226 H336 H304 H412 EUH066			
34590-94-8	(2-methoxymethylethoxy)propanol			5 - < 10 %
	252-104-2			
27247-96-7	2-Ethylhexyl nitrate			3 - < 5 %
	248-363-6		01-2119539586-27	
	Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Aquatic Chronic 2; H332 H312 H302 H411 EUH044 EUH066			
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene			1 - < 3 %
	227-813-5		01-2119529223-47	
	Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H226 H315 H317 H304 H400 H410			
104-76-7	2-Ethylhexan-1-ol			1 - < 3 %
	203-234-3		01-2119487289-20	
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H332 H315 H319 H335			
64742-94-5	Hydrocarbons, C10, aromatics, <1% naphthalene			0.1 - < 1 %
	918-811-1		01-2119463583-34	
	STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H336 H304 H411 EUH066			
110-91-8	morpholine			0.1 - < 1 %
	203-815-1		01-2119496057-30	
	Flam. Liq. 3, Acute Tox. 3, Acute Tox. 3, Acute Tox. 4, Skin Corr. 1B, Eye Dam. 1; H226 H331 H311 H302 H314 H318			

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

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.

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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 (CO₂). Extinguishing powder.

Unsuitable extinguishing media

Full 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, CO₂, 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.

Additional information

Danger of bursting container.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

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.

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.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. 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**


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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).

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

Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking. Heating causes rise in pressure with risk of bursting.

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

Protect from frost. Protect against direct sunlight. Store in a cool dry place. Observe legal regulations and provisions.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection
8.1. Control parameters**Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
34590-94-8	(2-methoxymethylethoxy) propanol	50	308		TWA (8 h)	WEL
104-76-7	2-ethylhexan-1-ol	1	5.4		TWA (8 h)	EU
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


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DNEL/DMEL values

CAS No	Substance		
DNEL type	Exposure route	Effect	Value
1174921-73-3	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics		
Worker DNEL, long-term	inhalation	systemic	871 mg/m ³
Worker DNEL, long-term	dermal	systemic	77 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	185 mg/m ³
Consumer DNEL, long-term	dermal	systemic	46 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	46 mg/kg bw/day
27247-96-7	2-Ethylhexyl nitrate		
Worker DNEL, long-term	inhalation	systemic	0,35 mg/m ³
Worker DNEL, long-term	dermal	systemic	1 mg/kg bw/day
Consumer DNEL, long-term	dermal	systemic	0,52 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,025 mg/kg bw/day
110-91-8	morpholine		
Worker DNEL, long-term	inhalation	systemic	91 mg/m ³
Worker DNEL, long-term	inhalation	local	36 mg/m ³
Worker DNEL, acute	inhalation	local	72 mg/m ³
Worker DNEL, long-term	dermal	systemic	1,04 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	6,3 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment	Value	
27247-96-7	2-Ethylhexyl nitrate	
Freshwater	0,0008 mg/l	
Marine water	0,00008 mg/l	
Freshwater sediment	0,00074 mg/kg	
Marine sediment	0,00074 mg/kg	
Micro-organisms in sewage treatment plants (STP)	10 mg/l	
Soil	0,000191 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


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b End of exposure or end of shift
 c at long term exposure: after several previous shifts
 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.

Protective and hygiene measures

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

Eye/face protection

Suitable eye protection: Tightly sealed safety glasses.
 DIN 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 (maximum wearing time) 480min
 Thickness of the glove material 0,45 mm
 DIN EN 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.
 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:	Aerosol
Colour:	yellow-brown
Odour:	characteristic

	Test method
pH-Value (at 20 °C):	not determined DIN 19268

Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	97 °C
Sublimation point:	not applicable
Softening point:	not applicable
Pour point:	not determined
Flash point:	26 °C


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Sustaining combustion: No data available

Flammability

Solid: not applicable

Gas: not applicable

Lower explosion limits: 0,5

Upper explosion limits: 13,5

Ignition temperature: > 200 °C

Auto-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: not determined

Oxidizing properties

Not oxidising.

Vapour pressure: not determined

Density (at 20 °C): 0,815 g/cm³ DIN 51757

Water solubility: insoluble

Solubility in other solvents

not determined

Partition coefficient: not determined

Viscosity / kinematic: < 20,5 mm²/s

Vapour density: not determined

Evaporation rate: not determined

9.2. Other information

Solid content: not determined

Data apply to technical substance: Relative density, Colour, Odour, Viscosity, pH.

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

Do not expose to temperatures above 50 °C. Heating causes rise in pressure with risk of bursting.

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. Take precautionary measures against static discharges.

10.5. Incompatible materials

Oxidizing agents. Pyrophoric or self-heating substances.

10.6. Hazardous decomposition productsIncomplete combustion and thermolysis gases of different toxicity can occur. In the case of hydrocarbonaceous products such as CO, CO₂, 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.



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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicokinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

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


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CAS No	Chemical name			
	Exposure route	Dose	Species	Source
64742-48-9	Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, < 2 % aromates			
	oral	LD50 >8000 mg/kg	Rat	
	dermal	LD50 >3160 mg/kg	Rabbit	
	inhalation (4 h) vapour	LC50 4951 mg/l	Rat	
71-23-8	n-propanol			
	oral	LD50 8000 mg/kg	Rat	
	dermal	LD50 4032 mg/kg	Rabbit	
	inhalation (4 h) vapour	LC50 > 33,8 mg/l	Rat	
1174921-73-3	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics			
	oral	LD50 > 15000 mg/kg	Rat	Study report (1977)
	dermal	LD50 > 5000 mg/kg	Rabbit	Study report (1993)
	inhalation (4 h) vapour	LC50 > 4951 mg/l	Rat	
34590-94-8	(2-methoxymethylethoxy)propanol			
	oral	LD50 5135 mg/kg	Rat	
	dermal	LD50 13000 mg/kg	Rabbit	
	inhalation vapour	LC50 500 mg/l	Rat	
	inhalation gas	LC50 500 ppm	Rat	
27247-96-7	2-Ethylhexyl nitrate			
	oral	LD50 >9640 mg/kg	Rat	
	dermal	LD50 >4820 mg/kg	Rabbit	
	inhalation (4 h) vapour	LC50 11 mg/l	Rat	
	inhalation aerosol	ATE 1,5 mg/l		
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene			
	oral	LD50 > 2000 mg/kg	Rat	Study report (2010)
	dermal	LD50 > 2000 mg/kg	Kaninchen	IUCLID
104-76-7	2-Ethylhexan-1-ol			
	oral	LD50 2047 mg/kg	Rat	
	dermal	LD50 > 3000 mg/kg	Rat	
	inhalation (4 h) vapour	LC50 11 mg/l	Rat	
	inhalation aerosol	ATE 1,5 mg/l		
64742-94-5	Hydrocarbons, C10, aromatics, <1% naphthalene			
	oral	LD50 >5000 mg/kg	Rat	
	dermal	LD50 >2000 mg/kg	Rabbit	
	inhalation (4 h) aerosol	LC50 > 5 mg/l	Rat	
110-91-8	morpholine			
	oral	LD50 ca. 1900 mg/kg	Rat	Study report (1967)
	dermal	LD50 ca. 500 mg/kg	Rabbit	Arch. Ind. Hyg Occup. Med. 10 61-68 (195


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	inhalation (4 h) vapour	LC50	8 mg/l	Rat	
	inhalation aerosol	ATE	0,5 mg/l		
	inhalation (4 h) gas	LC50	8000 ppm	Rat	

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. ((R)-p-mentha-1,8-diene, d-limonene)

Carcinogenic/mutagenic/toxic effects for reproduction

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

No indication of human carcinogenicity.

No indications of human germ cell mutagenicity exist.

No indications of human reproductive toxicity exist.

STOT-single exposure

May cause drowsiness or dizziness.

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

Aspiration hazard

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

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].

SECTION 12: Ecological information
12.1. Toxicity

Toxic to aquatic life with long lasting effects.


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CAS No	Chemical name				
	Aquatic toxicity	Dose	[h] [d]	Species	Source
64742-48-9	Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, < 2 % aromates				
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 >1000 mg/l	96 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50 >1000 mg/l	48 h	Daphnia magna	
71-23-8	n-propanol				
	Acute fish toxicity	LC50 4480 mg/l	96 h	Pimephales promelas	
1174921-73-3	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics				
	Acute fish toxicity	LC50 >1000 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	
	Acute algae toxicity	ErC50 >1000 mg/l	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50 >1000 mg/l	48 h	Daphnia magna	
	Fish toxicity	NOEC 0,182 mg/l	28 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010)
	Crustacea toxicity	NOEC 0,317 mg/l	21 d	Daphnia magna	Company report (2010)
34590-94-8	(2-methoxymethylethoxy)propanol				
	Acute fish toxicity	LC50 10000 mg/l	96 h	Pimephales promelas	
	Acute algae toxicity	ErC50 969 mg/l	96 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50 1919 mg/l	48 h	Daphnia magna	
27247-96-7	2-Ethylhexyl nitrate				
	Acute fish toxicity	LC50 2 mg/l	96 h	Danio rerio	Study report (2010)
	Acute algae toxicity	ErC50 > 12,6 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1998)
	Acute crustacea toxicity	EC50 > 12,6 mg/l	48 h	Daphnia magna	Study report (1998)
	Acute bacteria toxicity	(> 1000 mg/l)	3 h	activated sludge of a predominantly domestic sewage	Study report (2010)
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene				
	Acute fish toxicity	LC50 0,72 mg/l	96 h	Pimephales promelas	Study report (1990)
	Acute algae toxicity	ErC50 0,32 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (2013)
	Acute crustacea toxicity	EC50 0,307 mg/l	48 h	Daphnia magna	Study report (2013)
	Fish toxicity	NOEC 0,37 mg/l	8 d	Pimephales promelas	Study report (2015)
	Crustacea toxicity	NOEC 0,08 mg/l	21 d	Daphnia magna	Study report (2016)
	Acute bacteria toxicity	(209 mg/l)	3 h	activated sludge of a predominantly domestic sewage	Study report (2010)
104-76-7	2-Ethylhexan-1-ol				
	Acute fish toxicity	LC50 17,1 mg/l	96 h	Leuciscus idus (golden orfe)	
	Acute algae toxicity	ErC50 11,5 mg/l	72 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50 39 mg/l	48 h	Daphnia magna	
64742-94-5	Hydrocarbons, C10, aromatics, <1% naphthalene				


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	Acute fish toxicity	LC50	>1-<=10 mg/l	96 h	Pimephales promelas (fathead minnow)	
	Acute algae toxicity	ErC50	>1-<=10 mg/l	96 h	Scenedesmus subspicatus	
	Acute crustacea toxicity	EC50	>1-<=10 mg/l	48 h	Daphnia magna	
110-91-8	morpholine					
	Acute fish toxicity	LC50	380 mg/l	96 h	Oncorhynchus mykiss	Chemosphere 9: 753-762 (1980)
	Acute algae toxicity	ErC50	28 mg/l	96 h	Pseudokirchneriella subcapitata	Chemosphere 9: 753-762 (1980)
	Acute crustacea toxicity	EC50	44,5 mg/l	48 h	Daphnia magna	Study report (1997)
	Algae toxicity	NOEC	10 mg/l	4 d	Desmodesmus subspicatus	
	Crustacea toxicity	NOEC	5 mg/l	21 d	Daphnia magna	Study report (1997)

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
71-23-8	n-propanol	0,29
27247-96-7	2-Ethylhexyl nitrate	5,24
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene	4,38
104-76-7	2-Ethylhexan-1-ol	2,9
110-91-8	morpholine	-2,55

BCF

CAS No	Chemical name	BCF	Species	Source
1174921-73-3	Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics	144,3	calculated	Other company data (
5989-27-5	(R)-p-mentha-1,8-diene, d-limonene	908,5		Other company data (
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 product has not been tested.

12.6. 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


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Advice on disposal

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

Waste disposal number of waste from 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

Waste disposal number of 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

Waste disposal number of contaminated packaging

150104 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); metallic packaging

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

14.1. UN 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:	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

Marine transport (IMDG)

14.1. UN number:	UN 1950
14.2. UN proper shipping name:	AEROSOLS (2-Ethylhexyl nitrate)
14.3. Transport hazard class(es):	2.1
14.4. Packing group:	-
Hazard label:	2.1
Marine pollutant:	yes
Special Provisions:	63, 190, 277, 327, 344, 381,959
Limited quantity:	1000 mL
Excepted quantity:	E0
EmS:	F-D, S-U

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Air transport (ICAO-TI/IATA-DGR)

14.1. UN 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:	yes
Danger releasing substance:	2-ethylhexyl nitrate

14.6. Special precautions for user

No information available.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

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 28: Hydrocarbons, C10 - C13, n-alkanes, iso-alkanes, cyclics, < 2 % aromates; Hydrocarbons, C9-C10, n-alkanes, isoalkanes, cyclenes, <2% aromatics

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

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

Additional informationSafety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Aerosol directive (75/324/EEC)**National regulatory information**

Water contaminating class (D): 2 - clearly water contaminating

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): 2,3,5,8,9,10,11,12,14,15.

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)

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

IATA: International Air Transport Association

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IMDG: International Maritime Code for Dangerous Goods
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 (division of the American Chemical Society)
DNEL/DMEL: Derived No Effect Level / Derived Minimal Effect Level
WEL (UK): Workplace Exposure Limits
TWA (EC): Time-Weighted Average
ATE: Acute Toxicity Estimate
STEL (EC) Short Term Exposure Limit
LC50: Lethal Concentration
EC50: half maximal Effective Concentration
ErC50: means EC50 in terms of reduction of growth rate

Relevant H and EUH statements (number and full text)

H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H226	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.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
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.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH044	Risk of explosion if heated under confinement.
EUH066	Repeated exposure may cause skin dryness or cracking.

Further Information

Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]:
Calculation method.

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.)