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

1.1. Product identifier

901 Liqid Grease Flow MP90100400AB

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

Use of the substance/mixture

Lubricant

1.3. Details of the supplier of the safety data sheet

Manufacturer

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		

Supplier

Company name:	TUNAP (UK) Limited
Street:	Unit 12 Tonbridge Trade Park, Ingot Way
Place:	GB Tonbridge, Kent. TN9 1GN
Telephone:	+44 (0)1732 365163
E-mail:	sdb@tunap.com
Internet:	www.tunap.co.uk

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

Aerosol 1; H222-H229

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Signal word: Danger

Pictograms:

Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

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.
P302+P352	IF ON SKIN: Wash with plenty of water.

P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Special labelling of certain mixtures

EUH208	Contains Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts, Sulfonic acids, petroleum, calcium salts, Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts. May produce an allergic reaction.

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. 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

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (GB CLP Regulation)			
75-28-5	isobutane			50 - < 100 %
	200-857-2	601-004-00-0	01-2119485395-27	
	Flam. Gas 1, Press. Gas (Liq.); H220 H280			
68037-01-4	Dec-1-ene, homopolymer, hydrogenated			10 - < 20 %
	500-183-1		01-2119486452-34	
	Asp. Tox. 1; H304			
74-98-6	propane			5 - < 10 %
	200-827-9	601-003-00-5	01-2119486944-21	
	Flam. Gas 1, Press. Gas (Liq.); H220 H280			
106-97-8	butane			1 - < 3 %
	203-448-7	601-004-00-0	01-2119474691-32	
	Flam. Gas 1, Press. Gas (Liq.); H220 H280			
70024-69-0	Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts			0.1 - < 1 %
	274-263-7		01-2119492616-28	
	Skin Sens. 1B; H317			
68411-46-1	Benzenamine, N-phenyl-,reaction products with 2,4,4-trimethylpentene			0.1 - < 1 %
	270-128-1		01-2119491299-23	
	Repr. 2, Aquatic Chronic 3; H361f H412			
61789-86-4	Sulfonic acids, petroleum, calcium salts			0.1 - < 1 %
	263-093-9		01-2119488992-18	
	Skin Sens. 1B; H317			
68584-23-6	Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts			0.1 - < 1 %
	271-529-4		01-2119492627-25	
	Skin Sens. 1B; H317			
192268-65-8	A mixture of: triphenylthiophosphate and tertiary butylated phenyl derivatives			0.1 - < 1 %
	421-820-9	607-501-00-9	01-2119480426-35	
	Repr. 2, Aquatic Chronic 4; H361d H413			

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		
68037-01-4	500-183-1	Dec-1-ene, homopolymer, hydrogenated	10 - < 20 %
	inhalation: LC50 = > 5,2 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		
106-97-8	203-448-7	butane	1 - < 3 %
	inhalation: LC50 = 658 ppm (gases)		
70024-69-0	274-263-7	Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	0.1 - < 1 %
	inhalation: LC50 = >5 mg/l (dusts or mists); dermal: LD50 = > 4000 mg/kg; oral: LD50 = > 16000 mg/kg Skin Sens. 1B; H317: >= 10 - 100		
68411-46-1	270-128-1	Benzenamine, N-phenyl-,reaction products with 2,4,4-trimethylpentene	0.1 - < 1 %
	inhalation: LC50 = >5 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		
61789-86-4	263-093-9	Sulfonic acids, petroleum, calcium salts	0.1 - < 1 %
	dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 16000 mg/kg Skin Sens. 1B; H317: >= 10 - 100		
68584-23-6	271-529-4	Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	0.1 - < 1 %
	inhalation: LC50 = >5 mg/l (dusts or mists); dermal: LD50 = >5000 mg/kg; oral: LD50 = >5000 mg/kg Skin Sens. 1B; H317: >= 10 - 100		
192268-65-8	421-820-9	A mixture of: triphenylthiophosphate and tertiary butylated phenyl derivatives	0.1 - < 1 %
	inhalation: LC50 = >5 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg		

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 (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

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.

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).
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.

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

Protect from frost. Protect from 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/m³	fibres/ml	Category	Origin
106-97-8	Butane	600	1450		TWA (8 h)	WEL
		750	1810		STEL (15 min)	WEL

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
70024-69-0	Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts			
Worker DNEL, long-term		inhalation	systemic	11,75 mg/m³
Worker DNEL, long-term		dermal	systemic	3,33 mg/kg bw/day
Worker DNEL, long-term		dermal	local	1,03 mg/cm²
Consumer DNEL, long-term		inhalation	systemic	2,9 mg/m³
Consumer DNEL, long-term		dermal	systemic	1,667 mg/kg bw/day
Consumer DNEL, long-term		dermal	local	0,513 mg/cm²
Consumer DNEL, long-term		oral	systemic	0,833 mg/kg bw/day
68411-46-1	Benzenamine, N-phenyl-,reaction products with 2,4,4-trimethylpentene			
Worker DNEL, long-term		inhalation	systemic	0,6 mg/m³
Worker DNEL, long-term		dermal	systemic	0,08 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,14 mg/m³
Consumer DNEL, long-term		dermal	systemic	0,04 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,04 mg/kg bw/day
61789-86-4	Sulfonic acids, petroleum, calcium salts			
Worker DNEL, long-term		inhalation	systemic	11,75 mg/m³
Worker DNEL, long-term		dermal	systemic	3,33 mg/kg bw/day
Worker DNEL, long-term		dermal	local	1,03 mg/cm²
Consumer DNEL, long-term		inhalation	systemic	2,9 mg/m³
Consumer DNEL, long-term		dermal	systemic	1,667 mg/kg bw/day
Consumer DNEL, long-term		dermal	local	0,513 mg/cm²
Consumer DNEL, long-term		oral	systemic	0,833 mg/kg bw/day
192268-65-8	A mixture of: triphenylthiophosphate and tertiary butylated phenyl derivatives			
Worker DNEL, long-term		inhalation	systemic	1,76 mg/m³
Worker DNEL, long-term		dermal	systemic	0,5 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	0,43 mg/m³
Consumer DNEL, long-term		dermal	systemic	0,25 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,25 mg/kg bw/day

PNEC values

CAS No	Substance	
Environmental compartment		Value
70024-69-0	Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	
Freshwater		1 mg/l
Freshwater (intermittent releases)		10 mg/l
Marine water		1 mg/l
Freshwater sediment		226000000 mg/kg
Marine sediment		226000000 mg/kg
Secondary poisoning		16,667 mg/kg
Micro-organisms in sewage treatment plants (STP)		1000 mg/l
Soil		271000000 mg/kg
68411-46-1	Benzenamine, N-phenyl-,reaction products with 2,4,4-trimethylpentene	
Freshwater		0,034 mg/l
Freshwater (intermittent releases)		0,51 mg/l
Marine water		0,003 mg/l
Freshwater sediment		0,446 mg/kg
Marine sediment		0,045 mg/kg
Micro-organisms in sewage treatment plants (STP)		10 mg/l
Soil		1,76 mg/kg
61789-86-4	Sulfonic acids, petroleum, calcium salts	
Freshwater		1 mg/l
Freshwater (intermittent releases)		10 mg/l
Marine water		1 mg/l
Freshwater sediment		226000000 mg/kg
Marine sediment		226000000 mg/kg
Secondary poisoning		16,667 mg/kg
Micro-organisms in sewage treatment plants (STP)		1000 mg/l
Soil		271000000 mg/kg
192268-65-8	A mixture of: triphenylthiophosphate and tertiary butylated phenyl derivatives	
Freshwater		0 mg/l
Freshwater (intermittent releases)		1 mg/l
Marine water		0 mg/l
Freshwater sediment		2250 mg/kg
Marine sediment		225 mg/kg
Secondary poisoning		11 mg/kg
Micro-organisms in sewage treatment plants (STP)		32 mg/l
Soil		9,47 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.

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.
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: AX
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:	beige
Odour:	mild

		Test method
Melting point/freezing point:	not determined	
Boiling point or initial boiling point and boiling range:	-42 °C	
Flammability:	not applicable not applicable	
Lower explosion limits:	1,5 vol. %	
Upper explosion limits:	9,4 vol. %	
Flash point:	-80 °C	
Decomposition temperature:	not determined	
pH-Value (at 20 °C):		DIN 19268
Viscosity / kinematic: (at 40 °C)	> 20,5 mm²/s	
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):	0,855 g/cm³	DIN 51757
Relative vapour density:	not determined	

9.2. Other information

Information with regard to physical hazard classes

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable

Oxidizing properties

Not oxidising.

Other safety characteristics

Evaporation rate:	not determined
Solid content:	not determined

Further Information

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 products

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.

Further information

Do not mix with other chemicals.

SECTION 11: Toxicological information

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

Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

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

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
68037-01-4	Dec-1-ene, homopolymer, hydrogenated				
	oral	LD50 > 5000 mg/kg	Rat		
	dermal	LD50 > 2000 mg/kg	Rabbit		
	inhalation (4 h) dust/mist	LC50 > 5,2 mg/l	Rat		
106-97-8	butane				
	inhalation (4 h) gas	LC50 658 ppm	Rat	GESTIS	
70024-69-0	Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts				
	oral	LD50 > 16000 mg/kg	Rat	Study report (1981)	other: Section 772 .112-21 CFR 40
	dermal	LD50 > 4000 mg/kg	Rabbit	Study report (1986)	other: 40 CFR, Section 163.81-2, Federal
	inhalation (4 h) dust/mist	LC50 >5 mg/l	Rat		
68411-46-1	Benzenamine, N-phenyl-,reaction products with 2,4,4-trimethylpentene				
	oral	LD50 > 5000 mg/kg	Rat	Study report (1982)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Study report (1988)	OECD Guideline 402
	inhalation (4 h) dust/mist	LC50 >5 mg/l	Rat		
61789-86-4	Sulfonic acids, petroleum, calcium salts				
	oral	LD50 > 16000 mg/kg	Rat	Study report (1981)	other: Section 772 .112-21 CFR 40
	dermal	LD50 > 5000 mg/kg	Rabbit	Study report (1981)	OECD Guideline 402
68584-23-6	Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts				
	oral	LD50 >5000 mg/kg	Rat		
	dermal	LD50 >5000 mg/kg	Rat		
	inhalation (4 h) dust/mist	LC50 >5 mg/l	Rat		
192268-65-8	A mixture of: triphenylthiophosphate and tertiary butylated phenyl derivatives				
	oral	LD50 > 2000 mg/kg	Rat	Study report (1995)	EU Method B.1
	dermal	LD50 > 2000 mg/kg	Rat	Study report (1997)	OECD Guideline 402
	inhalation (4 h) dust/mist	LC50 >5 mg/l	Rat		

Irritation and corrosivity

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

Sensitising effects

Based on available data, the classification criteria are not met.
Contains Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts, Sulfonic acids, petroleum, calcium salts, Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts. May produce an allergic reaction.

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

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

STOT-repeated exposure

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

Aspiration hazard

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

Information on likely routes of exposure

Ingestion, Inhalation, Skin contact, Eye contact.
Reference to other sections: 2.1, 4.2.

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.

Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

The product is not: Ecotoxic.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
75-28-5	isobutane						
	Acute fish toxicity	LC50	91,42 mg/l	96 h	Fish, no other information	United States Environmental Protection A	The Ecosar class program has been develo
	Acute algae toxicity	ErC50	19,37 mg/l	96 h	Algae	USEPA OPPT Risk Assessment Division (200	Calculation using ECOSAR Program v1.00.
	Acute crustacea toxicity	EC50	69,43 mg/l	48 h	Daphnia sp.	USEPA OPPT Risk Assessment Division (200	Calculation using ECOSAR Program v1.00.
68037-01-4	Dec-1-ene, homopolymer, hydrogenated						
	Acute fish toxicity	LC50	> 1000 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)		
	Acute algae toxicity	ErC50	>1000 mg/l	72 h	Scenedesmus subspicatus		
	Acute crustacea toxicity	EC50	> 1000 mg/l	48 h	Daphnia magna		
74-98-6	propane						
	Acute fish toxicity	LC50	49,9 mg/l	96 h	Fish, no other information	United States Environmental Protection A	The Ecosar class program has been develo
	Acute algae toxicity	ErC50	19,37 mg/l	96 h	Algae	USEPA OPPT Risk Assessment Division (200	Calculation using ECOSAR Program v1.00.
	Acute crustacea toxicity	EC50	69,43 mg/l	48 h	Daphnia sp.	USEPA OPPT Risk Assessment Division (200	Calculation using ECOSAR Program v1.00.
106-97-8	butane						
	Acute fish toxicity	LC50	49,9 mg/l	96 h	Fish, no other information	United States Environmental Protection A	The Ecosar class program has been develo
	Acute algae toxicity	ErC50	19,37 mg/l	96 h	Algae	USEPA OPPT Risk Assessment Division (200	Calculation using ECOSAR Program v1.00.
	Acute crustacea toxicity	EC50	69,43 mg/l	48 h	Daphnia sp.	USEPA OPPT Risk Assessment Division (200	Calculation using ECOSAR Program v1.00.
70024-69-0	Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts						
	Acute fish toxicity	LC50	>10000 mg/l	96 h	Cyprinus carpio (Common Carp)		
	Acute algae toxicity	ErC50	> 1000 mg/l	72 h	Pseudokirchneriella subcapitata	REACh Registration Dossier	EPA OTS 797.1050
	Acute crustacea toxicity	EC50	> 1000 mg/l	48 h	Daphnia magna	REACh Registration Dossier	EPA OTS 797.1300

	Acute bacteria toxicity	EC50 mg/l ( )	> 10000	3 h	activated sludge of a predominantly domestic sewag	REACh Registration Dossier	OECD Guideline 209
68411-46-1	Benzenamine, N-phenyl-,reaction products with 2,4,4-trimethylpentene						
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Danio rerio	Study report (1988)	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Desmodesmus subspicatus	Study report (2006)	OECD Guideline 201
	Acute crustacea toxicity	EC50	51 mg/l	48 h	Daphnia magna	Study report (2004)	OECD Guideline 202
61789-86-4	Sulfonic acids, petroleum, calcium salts						
	Acute algae toxicity	ErC50 mg/l	> 1000	72 h	Pseudokirchneriella subcapitata	Study report (1994)	EPA OTS 797.1050
	Acute crustacea toxicity	EC50 mg/l	> 1000	48 h	Daphnia magna	Study report (1993)	EPA OTS 797.1300
	Acute bacteria toxicity	EC50 mg/l ( )	> 10000	3 h	activated sludge of a predominantly domestic sewag	Study report (1994)	OECD Guideline 209
68584-23-6	Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts						
	Acute fish toxicity	LC50 mg/l	>10000	96 h	Oncorhynchus mykiss (Rainbow trout)		
	Acute algae toxicity	ErC50 mg/l	>1000	96 h	Scenedesmus subspicatus		
	Acute crustacea toxicity	EC50 mg/l	>1000	48 h	Daphnia magna		
192268-65-8	A mixture of: triphenylthiophosphate and tertiary butylated phenyl derivatives						
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Danio rerio	Study report (1997)	EU Method C.1
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Desmodesmus subspicatus	Study report (1997)	EU Method C.3
	Acute crustacea toxicity	EC50 mg/l	>100	48 h	Daphnia magna		
	Fish toxicity	NOEC mg/l	0,0044	87 d	Oncorhynchus mykiss	Study report (2003)	OECD Guideline 210
	Crustacea toxicity	NOEC mg/l	>= 5,5	22 d	Daphnia magna	Study report (2015)	OECD Guideline 211

12.2. Persistence and degradability

The product has not been tested.

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
75-28-5	isobutane	1,09
74-98-6	propane	1,09
106-97-8	butane	1,09
70024-69-0	Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	18,05
68411-46-1	Benzenamine, N-phenyl-,reaction products with 2,4,4-trimethylpentene	> 6
61789-86-4	Sulfonic acids, petroleum, calcium salts	> 4,46
192268-65-8	A mixture of: triphenylthiophosphate and tertiary butylated phenyl derivatives	4,8 - 6,97

BCF

CAS No	Chemical name	BCF	Species	Source
68411-46-1	Benzenamine, N-phenyl-,reaction products with 2,4,4-trimethylpentene	411	Cyprinus carpio	Study report (2000)
192268-65-8	A mixture of: triphenylthiophosphate and tertiary butylated phenyl derivatives	ca. 64 - ca. 2508	Cyprinus carpio	Study report (1999)

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

Avoid release to the environment.

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.

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

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 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
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

Warning: Flammable gases.

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, Entry 28, Entry 40

Directive 2010/75/EU on industrial emissions:	No information available.
Directive 2004/42/EC on VOC in paints and varnishes:	No information available.

Additional information

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)
Aerosol Directive (75/324/)

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
Skin resorption/Sensitization:	Causes allergic hypersensitivity reactions.

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): 2,9,15.

Abbreviations and acronyms

Flam. Gas: Flammable gases
Aerosol: Aerosols
Press. Gas (Liq.): Liquefied gas
Asp. Tox: Aspiration hazard
Skin Sens: Skin sensitisation
Repr: Reproductive toxicity
Aquatic Chronic: Chronic aquatic hazard
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
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

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

Classification	Classification procedure
Aerosol 1; H222-H229	On basis of test data

Relevant H and EUH statements (number and full text)

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.
EUH208	Contains Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts, Sulfonic acids, petroleum, calcium salts, Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts. May produce an allergic reaction.

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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)