analytichem

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Preservation test fluid according to PV 2037, chap. 3.2.1

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

1.1. Product identifier

Preservation test fluid according to PV 2037, chap. 3.2.1

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

Use of the substance/mixture

Reagents and laboratory chemicals
Only for laboratory and analysis purposes.

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name:	AnalytiChem GmbH ACD		
Street:	Stempelstraße 6		
Place:	D-47167 Duisburg		
Telephone:	0203/5194-0	Telefax:	0203/5194-290
E-mail:	info@analytichem.de		
Contact person:	Abteilung Produktsicherheit	Telephone:	0203/5194-107/117
E-mail:	produktsicherheit@analytichem.de		
Internet:	www.analytichem.de		
Responsible Department:	Abteilung Produktsicherheit		

1.4. Emergency telephone number:

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Liq. 2; H225
Acute Tox. 4; H332
Skin Corr. 1B; H314
Eye Dam. 1; H318
STOT SE 3; H336
Asp. Tox. 1; H304
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

2,2,4-trimethylpentane
heptane
decahydronaphthalene
xylene (mix)

Signal word: Danger

Pictograms:

Hazard statements

H225	Highly flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
540-84-1	2,2,4-trimethylpentane			15 - < 20 %
	208-759-1	601-009-00-8	01-2119457965-22	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H225 H315 H336 H304 H400 H410			
142-82-5	heptane			15 - < 20 %
	205-563-8	601-008-00-2	01-2119457603-38	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H225 H315 H336 H304 H400 H410			
110-82-7	cyclohexane			15 - < 20 %
	203-806-2	601-017-00-1	01-2119463273-41	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H225 H315 H336 H304 H400 H410			
91-17-8	decahydronaphthalene			5 - < 10 %
	202-046-9		01-2119565127-37	
	Flam. Liq. 3, Acute Tox. 3, Skin Corr. 1B, Asp. Tox. 1, Aquatic Chronic 2; H226 H331 H314 H304 H411			
108-67-8	mesitylene			5 - < 10 %
	203-604-4	601-025-00-5	01-2119463878-19	
	Flam. Liq. 3, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H315 H319 H335 H304 H411			
	xylene (mix)			5 - < 10 %
	905-588-0	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			

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		
540-84-1	208-759-1	2,2,4-trimethylpentane	15 - < 20 %
	inhalation: LC50 = > 33,52 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		
142-82-5	205-563-8	heptane	15 - < 20 %
	inhalation: LC50 = > 29,29 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		
110-82-7	203-806-2	cyclohexane	15 - < 20 %
	inhalation: LC50 = > 5540 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg		
91-17-8	202-046-9	decahydronaphthalene	5 - < 10 %
	inhalation: LC50 = 710 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: LD50 = 5200 mg/kg; oral: LD50 = 4170 mg/kg		
108-67-8	203-604-4	mesitylene	5 - < 10 %
	oral: LD50 = 6000 mg/kg STOT SE 3; H335: >= 25 - 100		
	905-588-0	xylene (mix)	5 - < 10 %
	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		

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

No data available

After inhalation

Provide fresh air.

Call a physician immediately.

After contact with skin

Wash immediately with: Water

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

Call a physician immediately.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Remove contact lenses, if present and easy to do. Continue rinsing.

After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

No data available

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray jet, Carbon dioxide (CO2), Foam, Extinguishing powder.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Combustible liquid.
Vapours are heavier than air, spread along floors and form explosive mixtures with air.
Hazardous combustion products
In case of fire may be liberated: Carbon dioxide (CO2), Carbon monoxide
Beware of reignition.

5.3. Advice for firefighters

Remove persons to safety. Do not inhale explosion and combustion gases.
Avoid contact with skin, eyes and clothes.
In case of fire: Wear self-contained breathing apparatus.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
Use water spray jet to protect personnel and to cool endangered containers.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Keep away from sources of ignition - No smoking.
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe).
Take action to prevent static discharges.

For non-emergency personnel

Provide adequate ventilation.
Use personal protection equipment.
Avoid contact with skin, eyes and clothes.
Remove persons to safety.
Emergency procedures
Consult an expert
Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders : Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.
The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.
Danger of explosion

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.
Prevent spread over a wide area (e.g. by containment or oil barriers).
Collect in closed and suitable containers for disposal.
Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wear breathing apparatus if exposed to vapours/dusts/aerosols.

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

Read label before use. Handle and open container with care.
When using do not eat, drink, smoke, sniff. Keep container tightly closed.
Use personal protection equipment. Use extractor hood (laboratory).
Do not breathe gas/fumes/vapour/spray. Provide adequate ventilation.

Advice on protection against fire and explosion

Take action to prevent static discharges. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.
The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.
If handled uncovered, arrangements with local exhaust ventilation have to be used.
Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed. Keep in a cool, well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Hints on joint storage

Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.
national regulations

Further information on storage conditions

Vapours may form explosive mixtures with air.
Keep cool. Protect from sunlight.

7.3. Specific end use(s)

Laboratory use Laboratory chemical

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
110-82-7	Cyclohexane	200	700		TWA (8 h)	
108-67-8	Mesitylene (also 1,3,5 trimethylbenzene)	20	100		TWA (8 h)	
142-82-5	n-Heptane	500	2085		TWA (8 h)	
8002-74-2	Paraffin wax, fume	-	2		TWA (8 h)	
		-	6		STEL (15 min)	
1330-20-7	Xylene, mixed isomers	50	221		TWA (8 h)	
		100	442		STEL (15 min)	

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
540-84-1	2,2,4-trimethylpentane			
Worker DNEL, long-term		inhalation	systemic	2035 mg/m³
Worker DNEL, long-term		dermal	systemic	773 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	608 mg/m³
Consumer DNEL, long-term		dermal	systemic	699 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	699 mg/kg bw/day
142-82-5	heptane			
Worker DNEL, long-term		inhalation	systemic	2085 mg/m³
Worker DNEL, long-term		dermal	systemic	300 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	447 mg/m³
Consumer DNEL, long-term		dermal	systemic	149 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	149 mg/kg bw/day
110-82-7	cyclohexane			
Consumer DNEL, long-term		inhalation	systemic	206 mg/m³
Consumer DNEL, acute		inhalation	systemic	412 mg/m³
Consumer DNEL, long-term		inhalation	local	206 mg/m³
Consumer DNEL, acute		inhalation	local	412 mg/m³
Consumer DNEL, long-term		dermal	systemic	1186 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	59,4 mg/kg bw/day
Worker DNEL, long-term		inhalation	systemic	700 mg/m³
Worker DNEL, acute		inhalation	systemic	1400 mg/m³
Worker DNEL, long-term		inhalation	local	700 mg/m³
Worker DNEL, acute		inhalation	local	1400 mg/m³
Worker DNEL, long-term		dermal	systemic	2016 mg/kg bw/day
91-17-8	decahydronaphthalene			
Worker DNEL, long-term		inhalation	systemic	24 mg/m³
Worker DNEL, acute		inhalation	systemic	24 mg/m³
Worker DNEL, long-term		dermal	systemic	5,56 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	5,56 mg/kg bw/day
108-67-8	mesitylene			
Worker DNEL, long-term		inhalation	systemic	100 mg/m³
Worker DNEL, acute		inhalation	systemic	100 mg/m³
Worker DNEL, long-term		inhalation	local	100 mg/m³
Worker DNEL, acute		inhalation	local	100 mg/m³
Worker DNEL, long-term		dermal	systemic	16171 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	29,4 mg/m³

Consumer DNEL, acute	inhalation	systemic	29,4 mg/m³
Consumer DNEL, long-term	inhalation	local	29,4 mg/m³
Consumer DNEL, acute	inhalation	local	29,4 mg/m³
Consumer DNEL, long-term	dermal	systemic	9512 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	15 mg/kg bw/day
xylene (mix)			
Worker DNEL, long-term	inhalation	systemic	221 mg/m³
Worker DNEL, acute	inhalation	systemic	442 mg/m³
Worker DNEL, long-term	inhalation	local	221 mg/m³
Worker DNEL, acute	inhalation	local	442 mg/m³
Worker DNEL, long-term	dermal	systemic	212 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	65,3 mg/m³
Consumer DNEL, acute	inhalation	systemic	260 mg/m³
Consumer DNEL, long-term	inhalation	local	65,3 mg/m³
Consumer DNEL, acute	inhalation	local	260 mg/m³
Consumer DNEL, long-term	dermal	systemic	125 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	12,5 mg/kg bw/day

PNEC values

CAS No	Substance
Environmental compartment	Value
110-82-7	cyclohexane
Freshwater	0,207 mg/l
Freshwater (intermittent releases)	0,207 mg/l
Marine water	0,207 mg/l
Freshwater sediment	16,68 mg/kg
Marine sediment	16,68 mg/kg
Micro-organisms in sewage treatment plants (STP)	3,24 mg/l
Soil	3,38 mg/kg
91-17-8	decahydronaphthalene
Freshwater	0 mg/l
Marine water	0 mg/l
Freshwater sediment	0,058 mg/kg
Marine sediment	0,011 mg/kg
Micro-organisms in sewage treatment plants (STP)	10 mg/l
Soil	0,012 mg/kg
108-67-8	mesitylene
Freshwater	0,101 mg/l
Freshwater (intermittent releases)	0,101 mg/l
Marine water	0,101 mg/l
Freshwater sediment	7,86 mg/kg
Marine sediment	7,86 mg/kg
Micro-organisms in sewage treatment plants (STP)	2,02 mg/l
Soil	1,34 mg/kg
	xylene (mix)
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

8.2. Exposure controls

Appropriate engineering controls

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

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: goggles.

Hand protection

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With

specification (test according to EN374):

By long-term hand contact
Trade name/designation: KCL 890 Vitoject®
Suitable material: FKM (fluoro rubber) 0,7 mm
Wearing time with permanent contact: > 480 min

By short-term hand contact
Trade name/designation: KCL 890 Vitoject®
Suitable material: FKM (fluoro rubber) 0,7 mm
Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

Skin protection

Flame-retardant protective clothing. Wear anti-static footwear and clothing

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation
The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls

The vapour of the product is heavier than air and may accumulate below ground level, in pits, channels and basements in higher concentration.
Danger of explosion

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid	
Colour:	No data available	
Odour:	characteristic	
Melting point/freezing point:		No data available
Boiling point or initial boiling point and boiling range:		No data available
Flammability:		not applicable
Lower explosion limits:		No data available
Upper explosion limits:		No data available
Flash point:		<0 °C
Auto-ignition temperature:		No data available
Decomposition temperature:		not determined
pH-Value:		No data available
Viscosity / kinematic:		No data available
Water solubility:		easily soluble
Solubility in other solvents		
not determined		
Partition coefficient n-octanol/water:		No data available
Vapour pressure:		No data available
Vapour pressure:		No data available

Density:	0,81 g/cm³
Bulk density:	No data available
Relative vapour density:	not determined

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

Vapours can form explosive mixtures with air.

Sustained combustibility:	Sustained combustibility

Self-ignition temperature

Solid:	not applicable
Gas:	not applicable

Oxidizing properties

Not oxidising.

Other safety characteristics

Evaporation rate:	not determined
Solvent separation test:	No data available
Solvent content:	No data available
Solid content:	No data available
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available

No data available:

Viscosity / dynamic:	No data available
Flow time:	No data available

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

Vapours can form explosive mixtures with air.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Oxidising agent

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

No data available

10.6. Hazardous decomposition products

Hazardous combustion products

In case of fire may be liberated: Carbon dioxide (CO_2), Carbon monoxide

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

Acute toxicity

Harmful if inhaled.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) 4,065 mg/l

CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
540-84-1	2,2,4-trimethylpentane					
	oral	LD50 mg/kg	> 5000	Rat	Study report (1982)	OECD Guideline 401
	dermal	LD50 mg/kg	> 2000	Rabbit	Study report (1982)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 mg/l	> 33,52	Rat	Study report (1982)	OECD Guideline 403
142-82-5	heptane					
	oral	LD50 mg/kg	> 5000	Rat	Study report (1982)	OECD Guideline 401
	dermal	LD50 mg/kg	> 2000	Rabbit	Study report (1982)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 mg/l	> 29,29	Rat	Study report (1982)	OECD Guideline 403
110-82-7	cyclohexane					
	oral	LD50 mg/kg	> 5000	Rat	Study report (1982)	OECD Guideline 401
	dermal	LD50 mg/kg	> 2000	Rabbit	Study report (1982)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 mg/l	> 5540	Rat	Study report (1981)	OECD Guideline 403
91-17-8	decahydronaphthalene					
	oral	LD50 mg/kg	4170	Rat	Arch. Ind. Hyg. Occup. Med. 4, 119-122 (	Smyth HF Jr, Carpenter CP
	dermal	LD50 mg/kg	5200	Rabbit	Arch. Ind. Hyg. Occup. Med. 4, 119-122 (	Smyth HF Jr, Carpenter CP
	inhalation (4 h) vapour	LC50	710 mg/l	Rat	Acute Toxic Data 1, 215 (1978)	Acute inhalation toxicity similar to OEC
	inhalation dust/mist	ATE	0,5 mg/l			
108-67-8	mesitylene					
	oral	LD50 mg/kg	6000	Rat	Study report (1980)	EU Method B.1
	xylene (mix)					
	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 mg/l	6700	Rat	Toxicol Appl Pharmacol 33:543-558. (1975	EU Method B.2
	inhalation dust/mist	ATE	1,5 mg/l			

Irritation and corrosivity

Skin corrosion/irritation: Causes severe skin burns and eye damage.

Serious eye damage/eye irritation: Causes serious eye damage.

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

May cause drowsiness or dizziness.

STOT-repeated exposure

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

Aspiration hazard

May be fatal if swallowed and enters airways.

Specific effects in experiment on an animal

There are no data available on the mixture itself.

Additional information on tests

There are no data available on the mixture itself.

Practical experience

There are no data available on the mixture itself.

11.2. Information on other hazards

Other information

There are no data available on the mixture itself.

Further information

There are no data available on the mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic life.
Very toxic to aquatic life with long lasting effects.

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] | [d]	Species	Source	Method
540-84-1	2,2,4-trimethylpentane						
	Acute fish toxicity	LC50	0,11 mg/l	96 h	Oncorhynchus mykiss	SIDS Initial Assessment Report For SIAM	OECD Guideline 203
	Acute algae toxicity	ErC50	2,943 mg/l	72 h	Pseudokirchneriella subcapitata	CONCAWE, Brussels, Belgium (2010)	The aquatic toxicity was estimated by a
	Acute crustacea toxicity	EC50	0,4 mg/l	48 h	Daphnia magna	Publication (1986)	other: As described in: The evaluation o
	Fish toxicity	NOEC	0,82 mg/l	28 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010)	The aquatic toxicity was estimated by a
	Crustacea toxicity	NOEC	1 mg/l	21 d	Daphnia magna	SIDS Initial Assessment Report For SIAM	OECD Guideline 211
142-82-5	heptane						
	Acute algae toxicity	ErC50	4,338 mg/l	72 h	Pseudokirchneriella subcapitata	CONCAWE, Brussels, Belgium (2010)	The aquatic toxicity was estimated by a
	Acute crustacea toxicity	EC50	1,5 mg/l	48 h	Daphnia magna	Study report (1987)	other: As described in: The evaluation o
	Fish toxicity	NOEC	1,284 mg/l	28 d	Oncorhynchus mykiss	CONCAWE, Brussels, Belgium (2010)	The aquatic toxicity was estimated by a
	Crustacea toxicity	NOEC	1 mg/l	21 d	Daphnia magna	SIDS Initial Assessment Report For SIAM	OECD Guideline 211
110-82-7	cyclohexane						
	Acute fish toxicity	LC50	4,53 mg/l	96 h	Pimephales promelas	Vol. 5, Centre for Lake Superior Studies	OECD Guideline 203
	Acute algae toxicity	ErC50	9,317 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1998)	OECD Guideline 201
	Acute crustacea toxicity	EC50	0,9 mg/l	48 h	Daphnia magna	Publication (1987)	OECD Guideline 202
91-17-8	decahydronaphthalene						
	Acute algae toxicity	ErC50	> 2,2 mg/l	72 h	Desmodesmus subspicatus	Study report (1992)	EU Method C.3
	Acute crustacea toxicity	EC50	0,286 mg/l	48 h	Daphnia magna	Study report (2015)	OECD Guideline 202
	Crustacea toxicity	NOEC	0,0567 mg/l	21 d	Daphnia magna	Study report (2018)	OECD Guideline 211
108-67-8	mesitylene						
	Acute fish toxicity	LC50	5,216 mg/l	96 h	Fish	USEPA OPPT Risk Assessment Division (200	The Ecosar class program has been develo

	Acute algae toxicity	ErC50 3,084 mg/l	96 h	Green algae	USEPA OPPT Risk Assessment Division (200	The Ecosar class program has been develo
	Acute crustacea toxicity	EC50 6 mg/l	48 h	Daphnia magna	REACh Registration Dossier	OECD Guideline 202
	Fish toxicity	NOEC 0,277 mg/l	30 d	fish	USEPA OPPT Risk Assessment Division (200	The Ecosar class program has been develo
	Crustacea toxicity	NOEC 0,4 mg/l	21 d	Daphnia magna	REACh Registration Dossier	other: In accordance with the “Provision
	xylene (mix)					
	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	Raphidocelis subcapitata	Ecotoxicology and Environmental Safety.	OECD Guideline 201
	Acute crustacea toxicity	EC50 > 3,4 mg/l	48 h	Ceriodaphnia dubia	Ecotoxicology and Environmental Safety 3	other: US EPA 600/4-91-003
	Fish toxicity	NOEC > 1,3 mg/l	56 d	Oncorhynchus mykiss	Appl. Sci. Branch, Eng. Res. Cent. Denve	Fish were exposed in artificial streams
	Crustacea toxicity	NOEC 1,17 mg/l	7 d	Ceriodaphnia dubia	Ecotoxicology and Environmental Safety 3	other: US EPA 600/4-91-003
	Acute bacteria toxicity	EC50 > 175 mg/l ( )	0,5 h	Activated sludge	Research Journal WPCF 60(10) 1850-1856 (	OECD Guideline 209

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
540-84-1	2,2,4-trimethylpentane	4,08
142-82-5	heptane	4,5
110-82-7	cyclohexane	3,44
91-17-8	decahydronaphthalene	4,2
108-67-8	mesitylene	3,42
	xylene (mix)	3,2

BCF

CAS No	Chemical name	BCF	Species	Source
540-84-1	2,2,4-trimethylpentane	231	calculated	Other company data (
142-82-5	heptane	552	calculated	Other company data (
110-82-7	cyclohexane	167	Pimephales promelas	J. Fish. Board Can.
91-17-8	decahydronaphthalene	839 - 3050	Cyprinus carpio	Publication (1992)
108-67-8	mesitylene	161	Pimephales promelas	REACh Registration D
	xylene (mix)	> 5,5 - < 12,2	Oncorhynchus mykiss	Appl. Sci. Branch, E

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

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

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

There are no data available on the mixture itself.

Further information

Avoid release to the environment.
Do not empty into drains.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Do not allow to enter into surface water or drains.
Send to a hazardous waste incinerator facility under observation of official regulations .
Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Contaminated packaging

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.
Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 2924
14.2. UN proper shipping name:	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (heptane, decahydronaphthalene)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3+8
Classification code:	FC
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	338
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 2924
14.2. UN proper shipping name:	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (heptane, decahydronaphthalene)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3+8
Classification code:	FC
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2

Marine transport (IMDG)

14.1. UN number or ID number:	UN 2924
14.2. UN proper shipping name:	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (heptane, decahydronaphthalene)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3+8
Special Provisions:	274
Limited quantity:	1 L
Excepted quantity:	E2
EmS:	F-E, S-C

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 2924
14.2. UN proper shipping name:	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (heptane, decahydronaphthalene)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3+8
Special Provisions:	A3
Limited quantity Passenger:	0.5 L
Passenger LQ:	Y340
Excepted quantity:	E2
IATA-packing instructions - Passenger:	352
IATA-max. quantity - Passenger:	1 L
IATA-packing instructions - Cargo:	363
IATA-max. quantity - Cargo:	5 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS:	Yes
Danger releasing substance:	heptane

14.6. Special precautions for user

Warning: Combustible liquid.

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 40, Entry 57, Entry 75

Information according to Directive 2012/18/EU (SEVESO III):	E1 Hazardous to the Aquatic Environment
Additional information:	P5c

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

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 12.

Abbreviations and acronyms

Flam. Liq. 2: Flammable liquids, hazard category 2
Acute Tox. 3: Acute toxicity, hazard category 3
Asp. Tox. 1: Aspiration hazard, hazard category 1
Skin Corr. 1B: Skin corrosion, sub-category 1B
Skin Irrit. 2: Skin irritation, hazard category 2
Eye Dam. 1: Serious eye damage, hazard category 1
Eye Irrit. 2: Eye irritation, hazard category 2
STOT SE 3: Specific target organ toxicity - single exposure, hazard category 3
STOT RE 2: Specific target organ toxicity - repeated exposure, hazard category 2
Aquatic Acute 1: Hazardous to the aquatic environment, hazard category: Acute 1
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard category: Chronic 1
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%

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Acute Tox. 4; H332	Calculation method
Skin Corr. 1B; H314	Calculation method
Eye Dam. 1; H318	Calculation method
STOT SE 3; H336	Calculation method
Asp. Tox. 1; H304	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.

H312	Harmful in contact with skin.
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.
H373	May cause damage to organs (auditory organs, liver, kidneys, central nervous system) through prolonged or repeated exposure if inhaled.
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.

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 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.
Provide appropriate information, instructions and training to users

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