

Prüfmedium Kondensat I Prüf-Blow By

Revision date: 30.05.2022

Product code: 24357

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

1.1. Product identifier

Prüfmedium Kondensat I Prüf-Blow By

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

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name:	Fa. Bernd Kraft GmbH	
Street:	Stempelstraße 6	
Place:	D-47167 Duisburg	
Telephone:	0203/5194-0	Telefax: 0203/5194-290
e-mail:	info@berndkraft.de	
Contact person:	Abteilung Produktsicherheit	Telephone: 0203/5194-107/117
e-mail:	produktsicherheit@berndkraft.de	
Internet:	www.berndkraft.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
Asp. Tox. 1; H304
Skin Irrit. 2; H315
Carc. 2; H351
Repr. 2; H361d
STOT SE 3; H336
STOT RE 2; H373
Aquatic Chronic 2; H411

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

toluene
naphthalene
2,2,4-trimethylpentane
2,4,4-trimethylpentene

Safety Data Sheet

according to Regulation (EC) No 1907/2006

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Signal word: Danger

Pictograms:



Hazard statements

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H336	May cause drowsiness or dizziness.
H373	May cause damage to organs through prolonged or repeated exposure.
H304	May be fatal if swallowed and enters airways.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P331	Do NOT induce vomiting.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Special labelling of certain mixtures

EUH208	Contains formaldehyde 0,0999 %. May produce an allergic reaction.
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2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures

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Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
108-88-3	toluene			45 - < 50 %
	203-625-9	601-021-00-3	01-2119471310-51	
	Flam. Liq. 2, Repr. 2, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1; H225 H361d H315 H336 H373 H304			
540-84-1	2,2,4-trimethylpentane			20 - < 25 %
	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			
25167-70-8	2,4,4-trimethylpentene			10 - < 15 %
	246-690-9	601-087-00-3		
	Flam. Liq. 2, STOT SE 3, Asp. Tox. 1; H225 H336 H304			
64-17-5	ethanol			1 - < 5 %
	200-578-6	603-002-00-5	01-2119457610-43	
	Flam. Liq. 2, Eye Irrit. 2; H225 H319			
91-20-3	naphthalene			1 - < 5 %
	202-049-5	601-052-00-2		
	Flam. Sol. 1, Carc. 2, Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1; H228 H351 H302 H400 H410			

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	
108-88-3	203-625-9	toluene	45 - < 50 %
		inhalation: LC50 = 28,1 mg/l (vapours); dermal: LD50 = > 5000 mg/kg; oral: LD50 = 5580 mg/kg	
540-84-1	208-759-1	2,2,4-trimethylpentane	20 - < 25 %
		inhalation: LC50 = > 33,52 mg/l (vapours); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg	
25167-70-8	246-690-9	2,4,4-trimethylpentene	10 - < 15 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 2000 mg/kg	
64-17-5	200-578-6	ethanol	1 - < 5 %
		inhalation: LC50 = 124,7 mg/l (vapours); oral: LD50 = 10470 mg/kg Eye Irrit. 2; H319: >= 50 - 100	
91-20-3	202-049-5	naphthalene	1 - < 5 %
		inhalation: LC50 = > 77,7 mg/l (vapours); dermal: LD50 = > 16000 mg/kg; oral: LD50 = 710 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

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General information

No data available

After inhalation

Provide fresh air.

If breathing is irregular or stopped, administer artificial respiration.

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

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

In case of eye irritation consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs.

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 liquids

Hazardous combustion products

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Heating causes rise in pressure with risk of bursting.

5.3. Advice for firefighters

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

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

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

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paggers 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

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 uncontrolled discharge of product into the environment. 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

Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges.

Vapours can form explosive mixtures with air.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs.

Further information on handling

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

Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. If handled uncovered, arrangements with local exhaust ventilation have to be used.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a cool, well-ventilated place.

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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.

Further information on storage conditions

Keep cool. Protect from sunlight.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m ³	fib/cm ³	Category	Origin
64-17-5	Ethyl alcohol	1000	-		STEL (15 min)	
91-20-3	Naphthalene	10	50		TWA (8 h)	
108-88-3	Toluene	50	192		TWA (8 h)	
		100	384		STEL (15 min)	

Biological limit values

CAS No	Substance	Parameter	Value	Test material	Sampling time
108-88-3	Toluene	Toluene	0.02 mg/L	Blood	Prior to last shift of workweek

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DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
108-88-3	toluene			
Worker DNEL, long-term		inhalation	systemic	192 mg/m ³
Worker DNEL, acute		inhalation	systemic	384 mg/m ³
Worker DNEL, long-term		inhalation	local	192 mg/m ³
Worker DNEL, acute		inhalation	local	384 mg/m ³
Worker DNEL, long-term		dermal	systemic	384 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	56,5 mg/m ³
Consumer DNEL, acute		inhalation	systemic	226 mg/m ³
Consumer DNEL, long-term		inhalation	local	56,5 mg/m ³
Consumer DNEL, acute		inhalation	local	226 mg/m ³
Consumer DNEL, long-term		dermal	systemic	226 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	8,13 mg/kg bw/day
540-84-1	2,2,4-trimethylpentane			
Worker DNEL, long-term		inhalation	systemic	2035 mg/m ³
Worker DNEL, long-term		dermal	systemic	773 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	608 mg/m ³
Consumer DNEL, long-term		dermal	systemic	699 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	699 mg/kg bw/day
25167-70-8	2,4,4-trimethylpentene			
Worker DNEL, long-term		inhalation	systemic	14,7 mg/m ³
Worker DNEL, long-term		dermal	systemic	2,1 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	4,4 mg/m ³
Consumer DNEL, long-term		dermal	systemic	1,2 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	2,5 mg/kg bw/day
64-17-5	ethanol			
Worker DNEL, long-term		inhalation	systemic	950 mg/m ³
Worker DNEL, long-term		dermal	systemic	343 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	114 mg/m ³
Consumer DNEL, long-term		dermal	systemic	206 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	87 mg/kg bw/day
91-20-3	naphthalene			
Worker DNEL, long-term		inhalation	systemic	25 mg/m ³
Worker DNEL, long-term		inhalation	local	25 mg/m ³
Worker DNEL, long-term		dermal	systemic	3,57 mg/kg bw/day

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PNEC values

CAS No	Substance	Value
Environmental compartment		
108-88-3	toluene	
Freshwater		0,68 mg/l
Freshwater (intermittent releases)		0,68 mg/l
Marine water		0,68 mg/l
Freshwater sediment		16,39 mg/kg
Marine sediment		16,39 mg/kg
Micro-organisms in sewage treatment plants (STP)		13,61 mg/l
Soil		2,89 mg/kg
25167-70-8	2,4,4-trimethylpentene	
Freshwater		0,015 mg/l
Freshwater (intermittent releases)		0,015 mg/l
Marine water		0,015 mg/l
Freshwater sediment		0,9 mg/kg
Marine sediment		0,9 mg/kg
Micro-organisms in sewage treatment plants (STP)		0,233 mg/l
Soil		0,43 mg/kg
64-17-5	ethanol	
Freshwater		0,96 mg/l
Freshwater (intermittent releases)		2,75 mg/l
Marine water		0,79 mg/l
Freshwater sediment		3,6 mg/kg
Marine sediment		2,9 mg/kg
Secondary poisoning		380 mg/kg
Micro-organisms in sewage treatment plants (STP)		580 mg/l
Soil		0,63 mg/kg
91-20-3	naphthalene	
Freshwater		0,0024 mg/l
Freshwater (intermittent releases)		0,02 mg/l
Marine water		0,0024 mg/l
Freshwater sediment		0,0672 mg/kg
Marine sediment		0,0672 mg/kg
Micro-organisms in sewage treatment plants (STP)		2,9 mg/l
Soil		0,0533 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

goggles

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Face protection umbrella

Hand protection

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. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

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

Take off immediately all contaminated clothing and wash it before reuse.
Wear fire resistant or flame retardant clothing.
Wash hands and face before breaks and after work and take a shower if necessary.
Draw up and observe skin protection programme.

Respiratory protection

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

Environmental exposure controls

Do not allow to enter into surface water or drains.
Due to danger of explosion, prevent leakage of vapours into cellars, flues and ditches.
Danger of explosion

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	clear
Odour:	characteristic
Odour threshold:	No data available

Changes in the physical state

Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	?
Sublimation point:	No data available
Softening point:	No data available

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Pour point: No data available
: No data available
Flash point: -12 °C

Flammability

Solid/liquid: not applicable
Gas: not applicable

Explosive properties

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Lower explosion limits: No data available
Upper explosion limits: No data available
Auto-ignition temperature: No data available

Self-ignition temperature

Solid: not applicable
Gas: not applicable

Decomposition temperature: No data available

pH-Value: No data available

Viscosity / dynamic: No data available

Viscosity / kinematic: No data available

Flow time: No data available

Water solubility: No data available

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 (at 20 °C): 0,7972 g/cm³

Bulk density: No data available

Relative vapour density: No data available

9.2. Other information

Information with regard to physical hazard classes

Sustaining combustion: Sustaining combustion

Oxidizing properties
Not oxidising.

Other safety characteristics

Solvent separation test: No data available

Solvent content: No data available

Solid content: No data available

Evaporation rate: No data available

Further Information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable.

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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 information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

Further information

No data available

SECTION 11: Toxicological information

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

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	Method
108-88-3	toluene				
	oral	LD50 5580 mg/kg	Rat	Toxicology 4, 5-15 (1975)	EU Method B.1
	dermal	LD50 > 5000 mg/kg	Rabbit	American Industrial Hygiene Association	Study investigated mortality in groups o
	inhalation (4 h) vapour	LC50 28,1 mg/l	Rat	Study report (1980)	OECD Guideline 403
540-84-1	2,2,4-trimethylpentane				
	oral	LD50 > 5000 mg/kg	Rat	Study report (1982)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rabbit	Study report (1982)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 > 33,52 mg/l	Rat	Study report (1982)	OECD Guideline 403
25167-70-8	2,4,4-trimethylpentene				
	oral	LD50 > 2000 mg/kg	Rat	Study report (1996)	OECD Guideline 401
	dermal	LD50 > 2000 mg/kg	Rat	Study report (1996)	OECD Guideline 402
64-17-5	ethanol				
	oral	LD50 10470 mg/kg	Rat	Study report (1976)	OECD Guideline 401
	inhalation (4 h) vapour	LC50 124,7 mg/l	Rat	Study report (1980)	OECD Guideline 403
91-20-3	naphthalene				
	oral	LD50 710 mg/kg	Mouse	FUND. APPL. TOXICOL 4: 406-419 (1984) (1)	OECD Guideline 401
	dermal	LD50 > 16000 mg/kg	Rat	Study report (1980)	OECD Guideline 402
	inhalation (4 h) vapour	LC50 > 77,7 mg/l	Rat	Study report (1985)	other: EPA TSCA

Irritation and corrosivity

Causes skin irritation.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Contains formaldehyde 0,0999 %. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer. (naphthalene)

Suspected of damaging the unborn child. (toluene)

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

STOT-single exposure

May cause drowsiness or dizziness. (toluene; 2,2,4-trimethylpentane)

STOT-repeated exposure

May cause damage to organs through prolonged or repeated exposure. (toluene)

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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

There are no data available on the mixture itself.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

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CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
108-88-3	toluene					
	Acute fish toxicity	LC50 5,5 mg/l	96 h	Oncorhynchus kisutch	Transactions A. Fish. Soc. 110, 430-436.	Fry were exposed to toluene in a flow th
	Acute algae toxicity	ErC50 > 433 mg/l	96 h	Pseudokirchneriella subcapitata	REACH Registration Dossier	Method: other
	Acute crustacea toxicity	EC50 11,5 mg/l	48 h	Daphnia magna	REACH Registration Dossier	Method: other
	Fish toxicity	NOEC 1,39 mg/l	40 d	Oncorhynchus kisutch	Transactions A. Fish. Soc. 110, 430-436.	Fry were exposed to toluene in a flow th
	Algae toxicity	NOEC > 400 mg/l	7 d	Scenedesmus quadricauda	REACH Registration Dossier	Method: other
	Crustacea toxicity	NOEC 0,74 mg/l	7 d	Ceriodaphnia dubia	Ecotoxicol. Environ. Saf. 39, 136-146. (other: US EPA 600/4-91-003
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
25167-70-8	2,4,4-trimethylpentene					
	Acute algae toxicity	ErC50 0,73 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (1996)	OECD Guideline 201
	Crustacea toxicity	NOEC 0,16 mg/l	21 d	Daphnia magna	Study report (2009)	OECD Guideline 211
64-17-5	ethanol					
	Acute fish toxicity	LC50 15400 mg/l	96 h	Lepomis macrochirus	Bulletin of Environmental Contamination	other: EPA-660/3-75-009, 1975
	Acute algae toxicity	ErC50 ca. 22000 mg/l	96 h	Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety 7	OECD Guideline 201

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	Acute crustacea toxicity	EC50 mg/l	> 10000	48 h	Daphnia magna	Water Research 23(4): 495-499 (1989)	other: DIN 38412 Teil 11
	Algae toxicity	NOEC mg/l	5400	5 d	Skeletonema costatum	Environ Toxicol Chem 8(5):451-455. (1989)	Study to determine the sensitivity of a
	Crustacea toxicity	NOEC	2 mg/l	10 d	Ceriodaphnia dubia	Arch Environ Contam Toxicol 20(2):211-21	Follows the basic methodology for the th
91-20-3	naphthalene						
	Acute fish toxicity	LC50	1,6 mg/l	96 h	Oncorhynchus mykiss	Arch. Environm. Contam. Toxicol. 11, 487	OECD Guideline 203
	Acute algae toxicity	ErC50 ca. 0,5 mg/l	ca. 0,4 -	72 h	Skeletonema costatum	Mar Environ Res 11, 183-200 (1984)	Aquatic toxicity of water soluble fracti
	Acute crustacea toxicity	EC50 mg/l	2,16	48 h	Daphnia magna	Transactions of the American Fisheries S	OECD Guideline 202
	Fish toxicity	NOEC mg/l	0,37	40 d	Oncorhynchus kisutch	Trans. Am. Fish. Soc. 110:430-436, 1981	Coho salmon fry were exposed for 40 days
	Crustacea toxicity	NOEC mg/l	0,59	125 d	Daphnia pulex	Can. J. Fish. Aquat. Sci. 39: 830 - 834	During chronic studies in closed static

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
108-88-3	toluene	2,73
540-84-1	2,2,4-trimethylpentane	4,08
25167-70-8	2,4,4-trimethylpentene	4,9 - 5
64-17-5	ethanol	-0,77
91-20-3	naphthalene	3,4

BCF

CAS No	Chemical name	BCF	Species	Source
108-88-3	toluene	90	Leuciscus idus melanotus	Chemosphere 14 (10).
540-84-1	2,2,4-trimethylpentane	231	calculated	Other company data (
25167-70-8	2,4,4-trimethylpentene	925	no data	QSAR calculation (20
64-17-5	ethanol	1	Cyprinus carpio	Comparative Biochemi
91-20-3	naphthalene	36,5 - 168	Cyprinus carpio	http://www.safe.nite

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.

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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

Do not allow to enter into surface water or drains.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.
Send to a physico-chemical treatment facility under observation of official regulations.
Do not empty into drains.

Contaminated packaging

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

SECTION 14: Transport information

Land transport (ADR/RID)

14.1. UN number or ID number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (toluene, isooctane)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Classification code:	F1
Special Provisions:	274 601 640D
Limited quantity:	1 L
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

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

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1993
14.2. UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (toluene, isooctane)
14.3. Transport hazard class(es):	3
14.4. Packing group:	II
Hazard label:	3
Special Provisions:	274

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Limited quantity: 1 L
 Excepted quantity: E2
 EmS: F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

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

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes
 Danger releasing substance: 2,2,4-trimethylpentane; 2,4,4-trimethylpent-1-ene

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 48, Entry 75

National regulatory information

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

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

15.2. Chemical safety assessment

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

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,4,5,6,7,8,9,10,11,12,13,14.

Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
 IMDG: International Maritime Code for Dangerous Goods
 IATA: International Air Transport Association
 GHS: Globally Harmonized System of Classification and Labelling of Chemicals

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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%

Relevant H and EUH statements (number and full text)

H225	Highly flammable liquid and vapour.
H228	Flammable solid.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
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.
EUH208	Contains formaldehyde 0,0999 %. 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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)