Print date: 08.02.2024



Safety Data Sheet

according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 1 of 17

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

1.1. Product identifier

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

6QXE-30GT-1007-RPFC

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

AnalytiChem GmbH Company name:

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

produktsicherheit@analvtichem.de E-mail:

Internet: www.analytichem.de Responsible Department:

Abteilung Produktsicherheit

1.4. Emergency telephone For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,

Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: number:

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; H302 Asp. Tox. 1; H304 Skin Irrit. 2; H315 Eye Dam. 1; H318 Repr. 2; H361d STOT SE 2; H371 STOT SE 3: H336

STOT RE 2: H373 Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 2 of 17

Hazard components for labelling

toluene methanol

tetrabutylammonium hydroxide

Signal word: Danger

Pictograms:









Hazard statements

H225 Highly flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H318 Causes serious eye damage.
 H336 May cause drowsiness or dizziness.
 H361d Suspected of damaging the unborn child.

H371 May cause damage to organs.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No

smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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.

P331 Do NOT induce vomiting.

P403+P235 Store in a well-ventilated place. Keep cool.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 3 of 17

Relevant ingredients

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation	n (EC) No 1272/2008)	•	
108-88-3	toluene			85 - < 90 %
	203-625-9	601-021-00-3	01-2119471310-51	
	Flam. Liq. 2, Repr. 2, Sk H361d H315 H336 H373		sp. Tox. 1, Aquatic Chronic 3; H225	
67-56-1	methanol	5 - < 10 %		
	200-659-6	603-001-00-X	01-2119433307-44	
	Flam. Liq. 2, Acute Tox.	3, Acute Tox. 3, Acute Tox. 3, STOT	SE 1; H225 H331 H311 H301 H370	
2052-49-5	tetrabutylammonium hyd	roxide		1 - < 5 %
	218-147-6	060-300-10-0	01-2120231229-61	
	Acute Tox. 4, Skin Corr.			

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. L	imits, M-factors and ATE	
108-88-3	203-625-9	toluene	85 - < 90 %
	inhalation: LC5	0 = 28,1 mg/l (vapours); dermal: LD50 = > 5000 mg/kg; oral: LD50 = 5580 mg/kg	
67-56-1	200-659-6	methanol	5 - < 10 %
		0 = 128,2 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: cg; oral: LD50 = 6000 mg/kg STOT SE 1; H370: >= 10 - 100 STOT SE 2;	
2052-49-5	218-147-6	tetrabutylammonium hydroxide	1 - < 5 %
	oral: LD50 = 10	00 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.

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.

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

After ingestion

Observe risk of aspiration if vomiting occurs.



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 4 of 17

Call a physician immediately.

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

Irritant, Headache

Dizziness, Dizziness

Vomiting, Inebriation

Spasms, Circulatory collapse

Respiratory complaints, Dyspnoea

Unconsciousness

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

Foam.

Extinguishing powder

Carbon dioxide (CO2)

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Combustible liquids

Beware of reignition.

Hazardous combustion products

In case of fire may be liberated:

Carbon dioxide (CO2), Carbon monoxide

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 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

Do not breathe dust/fume/gas/mist/vapours/spray.



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 5 of 17

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

Avoid exposure - obtain special instructions before use.

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

Keep away from food, drink and animal feedingstuffs.

Draw up and observe skin protection programme.

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. Store in a place accessible by authorized persons only.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep in a cool, well-ventilated place.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep container tightly closed.

Further information on storage conditions

Keep cool. Protect from sunlight.



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 6 of 17

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/m³	fib/cm³	Category	Origin
67-56-1	Methyl alcohol	200	260		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		Prior to last shift of workweek
67-56-1	Methanol	Methanol	15 mg/L	Urine	End of shift



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 7 of 17

DNEL/DMEL values

CAS No Substance			
DNEL type	Exposure route	Effect	Value
108-88-3 toluene			
Worker DNEL, long-term	inhalation	systemic	192 mg/m³
Worker DNEL, acute	inhalation	systemic	384 mg/m³
Worker DNEL, long-term	inhalation	local	192 mg/m³
Worker DNEL, acute	inhalation	local	384 mg/m³
Worker DNEL, long-term	dermal	systemic	384 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	56,5 mg/m³
Consumer DNEL, acute	inhalation	systemic	226 mg/m³
Consumer DNEL, long-term	inhalation	local	56,5 mg/m³
Consumer DNEL, acute	inhalation	local	226 mg/m³
Consumer DNEL, long-term	dermal	systemic	226 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	8,13 mg/kg bw/day
67-56-1 methanol			
Consumer DNEL, acute	inhalation	systemic	50 mg/m³
Worker DNEL, long-term	inhalation	systemic	260 mg/m ³
Worker DNEL, acute	inhalation	systemic	260 mg/m ³
Worker DNEL, long-term	inhalation	local	260 mg/m ³
Worker DNEL, acute	inhalation	local	260 mg/m ³
Worker DNEL, long-term	dermal	systemic	40 mg/kg bw/day
Worker DNEL, acute	dermal	systemic	40 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	50 mg/m³
Consumer DNEL, long-term	inhalation	local	50 mg/m³
Consumer DNEL, acute	inhalation	local	50 mg/m³
Consumer DNEL, long-term	dermal	systemic	8 mg/kg bw/day
Consumer DNEL, acute	dermal	systemic	8 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	8 mg/kg bw/day
Consumer DNEL, acute	oral	systemic	8 mg/kg bw/day
2052-49-5 tetrabutylammonium hydroxide			
Worker DNEL, long-term	inhalation	systemic	4,93 mg/m³
Worker DNEL, long-term	dermal	systemic	1,4 mg/kg bw/day
Consumer DNEL, long-term	inhalation	systemic	0,87 mg/m³
Consumer DNEL, long-term	dermal	systemic	0,5 mg/kg bw/day
Consumer DNEL, long-term	oral	systemic	0,5 mg/kg bw/day



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 8 of 17

PNEC values

CAS No	Substance	
Environment	tal compartment	Value
108-88-3	toluene	
Freshwater		0,68 mg/l
Freshwater ((intermittent releases)	0,68 mg/l
Marine wate	r	0,68 mg/l
Freshwater	sediment	16,39 mg/kg
Marine sedir	ment	16,39 mg/kg
Micro-organi	isms in sewage treatment plants (STP)	13,61 mg/l
Soil		2,89 mg/kg
67-56-1	methanol	
Freshwater		20,8 mg/l
Freshwater ((intermittent releases)	1540 mg/l
Marine water		2,08 mg/l
Freshwater	sediment	77 mg/kg
Marine sedir	ment	7,7 mg/kg
Micro-organi	isms in sewage treatment plants (STP)	100 mg/l
Soil		100 mg/kg
2052-49-5	tetrabutylammonium hydroxide	
Freshwater		0,0165 mg/l
Freshwater ((intermittent releases)	0,165 mg/l
Marine water		0,00165 mg/l
Freshwater	sediment	2,16 mg/kg
Marine sediment		0,216 mg/kg
Micro-organi	isms in sewage treatment plants (STP)	28,4 mg/l
Soil		0,421 mg/kg

8.2. Exposure controls

Appropriate engineering controls

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

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Face protection umbrella

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: No data available

By short-term hand contact

Trade name/designation: KCL 890 Vitoject®



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 9 of 17

Suitable material: FKM (fluoro rubber) 0,7 mm

Wearing time with occasional contact (splashes): > 120 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.

Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

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: light brown

Odour: like: Hydrocarbons, aromatic

Odour threshold: No data available

Melting point/freezing point:

No data available
Boiling point or initial boiling point and

>35 °C

boiling range:

Flammability: No data available No data available Lower explosion limits: No data available Upper explosion limits: ~4 °C Flash point: No data available Auto-ignition temperature: No data available Decomposition temperature: pH-Value: 5.3 No data available Viscosity / kinematic: Water solubility: No data available

Solubility in other solvents

No data available

Partition coefficient n-octanol/water:

Vapour pressure:

Vapour pressure:

No data available

Vapour pressure:

No data available

Density:

0,86 g/cm³

Bulk density:

No data available

Relative vapour density:

No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties

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

Sustaining combustion:

Sustaining combustion

Self-ignition temperature

Solid: No data available



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 10 of 17

Gas: No data available

Oxidizing properties

No data available

Other safety characteristics

Evaporation rate: No data available Solvent separation test: No data available Solvent content: No data available Solid content: Sublimation point: No data available Softening point: No data available Pour point: No data available No data available Viscosity / dynamic: 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

Vapours may 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

Nitric acid

Acetic acid

Strong acid

silver

10.4. Conditions to avoid

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5. Incompatible materials

Plastic articles

Rubber articles

10.6. Hazardous decomposition products

SECTION 5: Firefighting measures

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

Avoid exposure - obtain special instructions before use.

Acute toxicity

Harmful if swallowed.

Irritation to respiratory tract

ATEmix calculated

ATE (oral) 1377 mg/kg; ATE (dermal) 4348 mg/kg; ATE (inhalation vapour) 43,48 mg/l; ATE (inhalation dust/mist) 7,246 mg/l



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 11 of 17

CAS No	Chemical name	Chemical name							
	Exposure route	Dose		Species	Source	Method			
108-88-3	toluene								
	oral	LD50 mg/kg	5580	Rat	Toxicology 4, 5-15 (1975)	EU Method B.1			
	dermal	LD50 mg/kg	> 5000	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			
67-56-1	methanol								
	oral	LD50 mg/kg	6000	Monkey	Amer J Ophthalmol 40: 76-83 (cited in DG	Determination of the acute toxicity of t			
	dermal	ATE mg/kg	300						
	inhalation (4 h) vapour	LC50 mg/l	128,2	Rat	Study report (1980)	Study performed according to internal co			
	inhalation dust/mist	ATE	0,5 mg/l						
2052-49-5	tetrabutylammonium hyd	Iroxide							
	oral	LD50 mg/kg	1000	Rat	Study report (2018)	OECD Guideline 423			

Irritation and corrosivity

Causes skin irritation.

Causes serious eye damage.

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

Sensitising effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging the unborn child. (toluene)

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

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

STOT-single exposure

May cause damage to organs. (methanol)

May cause drowsiness or dizziness. (toluene)

STOT-repeated exposure

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

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

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 12 of 17

Further information

Irritant, Headache
Dizziness, Dizziness
Vomiting, Inebriation
Spasms, Circulatory collapse
Respiratory complaints, Dyspnoea
Unconsciousness

SECTION 12: Ecological information

12.1. Toxicity

Harmful to aquatic life with long lasting effects.



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 13 of 17

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 mg/l	> 433	96 h	Pseudokirchneriella subcapitata	REACh Registration Dossier	Method: other	
	Acute crustacea toxicity	EC50 mg/l	11,5	48 h	Daphnia magna	REACh Registration Dossier	Method: other	
	Fish toxicity	NOEC mg/l	1,39	40 d	Oncorhynchus kisutch	Transactions A. Fish. Soc. 110, 430-436.	Fry were exposed to toluene in a flow th	
	Algae toxicity	NOEC mg/l	> 400	7 d	Scenedesmus quadricauda	REACh Registration Dossier	Method: other	
	Crustacea toxicity	NOEC mg/l	0,74	7 d	Ceriodaphnia dubia	Ecotoxicol. Environ. Saf. 39, 136-146. (other: US EPA 600/4-91-003	
67-56-1	methanol							
	Acute fish toxicity	LC50 mg/l	15400	96 h	Lepomis macrochirus	Bulletin of Environmental Contamination	other: EPA-660/3-75-00 9, 1975	
	Acute algae toxicity	ErC50 22000 mg/l	ca.	96 h	Pseudokirchneriella subcapitata	Ecotoxicology and Environmental Safety 7	OECD Guideline 201	
	Acute crustacea toxicity	EC50 mg/l	> 10000	48 h	Daphnia magna	Water Research 23(4): 495-499 (1989)	other: DIN 38412 Teil 11	
	Fish toxicity	NOEC mg/l	446,7	28 d	Pimephales promelas	SAR and QSAR in Environmental Research,	Calculation performed with ECOSAR	
	Crustacea toxicity	NOEC	208 mg/l	21 d	Daphnia magna	OECD QSAR Toolbox Report (2013)	Toxicity of the target chemical is predi	
2052-49-5	tetrabutylammonium hydr	oxide						
	Acute fish toxicity	LC50 mg/l	> 100	96 h	Danio rerio	REACh Registration Dossier	other: as mentioned below	
	Acute algae toxicity	ErC50 mg/l	> 200	72 h	Chlorella vulgaris	REACh Registration Dossier	OECD Guideline 201	
	Acute crustacea toxicity	EC50 mg/l	16,5	48 h	Daphnia magna	REACh Registration Dossier	OECD Guideline 202	

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.



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 14 of 17

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
108-88-3	toluene	2,73
67-56-1	methanol	-0,77
2052-49-5	tetrabutylammonium hydroxide	1,518

BCF

CAS No	Chemical name	BCF	Species	Source
108-88-3	toluene	90	Leuciscus idus melanotus	Chemosphere 14 (10).
67-56-1	methanol	1	Cyprinus carpio	Comparative Biochemi
2052-49-5	tetrabutylammonium hydroxide	70,794	Fish	REACh Registration D

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

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 mix with other wastes.

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, methanol)

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3Classification 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



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 15 of 17

14.2. UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (toluene, methanol)

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3Classification 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, methanol)

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3Special Provisions:274Limited quantity:1 LExcepted quantity:E2EmS: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, methanol)

14.3. Transport hazard class(es):314.4. Packing group:IIHazard label:3Special Provisions:A3Limited quantity Passenger:1 LPassenger LQ:Y341Excepted quantity:E2

IATA-packing instructions - Passenger:353IATA-max. quantity - Passenger:5 LIATA-packing instructions - Cargo:364IATA-max. quantity - Cargo:60 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

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 69

Directive 2010/75/EU on industrial 100 % (870 g/l)

emissions:

Information according to Directive

2012/18/EU (SEVESO III):

P5c FLAMMABLE LIQUIDS

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. Observe employment restrictions for women of

child-bearing age.

Water hazard class (D): 3 - highly hazardous to water



according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 16 of 17

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 1,2,9,11,12.

Abbreviations and acronyms

Flam. Liq: Flammable liquid Acute Tox: Acute toxicity Asp. Tox: Aspiration hazard Skin Corr: Skin corrosion Skin Irrit: Skin irritation Eye Dam: Eye damage Repr: Reproductive toxicity

STOT SE: Specific target organ toxicity - single exposure STOT RE: Specific target organ toxicity - repeated exposure

Aquatic Chronic: Chronic aquatic hazard

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; H302	Calculation method
Asp. Tox. 1; H304	Calculation method
Skin Irrit. 2; H315	Calculation method
Eye Dam. 1; H318	Calculation method
Repr. 2; H361d	Calculation method
STOT SE 2; H371	Calculation method
STOT SE 3; H336	Calculation method
STOT RE 2; H373	Calculation method
Aquatic Chronic 3; H412	Calculation method

Relevant H and EUH statements (number and full text)

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H361d	Suspected of damaging the unborn child.
H370	Causes damage to organs.
H371	May cause damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

Highly flammable liquid and vapour.

Further Information

H225

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.

Print date: 08.02.2024



Safety Data Sheet

according to Regulation (EC) No 1907/2006

TBAH-Lösung 0,11 mol/l in Toluol/Methanol

Revision date: 08.02.2024 Product code: 05040 Page 17 of 17

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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