

**Tetra-n-butylammonium hydroxide 0.1 mol/l**

Revision: 18.08.2025

Product code: AC15.05879

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Tetra-n-butylammonium hydroxide 0.1 mol/l

UFI: 94PJ-12R8-1WCM-UWF1

**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****Details of the supplier of the safety data sheet**

Company name: AnalytiChem Services, Unipessoal, Lda  
Street: Rua de Júlio Dinis 676 7º  
Place: N-4050-320 Porto  
Telephone: +351 226002917  
E-mail: info@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Internet: www.analytichem.com  
Responsible Department: SDS service department

**Supplier or manufacturer details**

Company name: AnalytiChem Belgium NV  
Street: Industriezone "De Arend" 2  
Place: B-8210 Zedelgem  
Telephone: +32 50 28 83 20  
E-mail: info.be@analytichem.com  
Contact person: SDS service department  
E-mail: SDS@analytichem.com  
Responsible Department: AnalytiChem:  
EU-Belgium: AnalytiChem Belgium, Industriezone "De Arend" 2, 8210 Zedelgem, Belgium, +32 50 28 83 20  
EU-Germany: AnalytiChem Germany, Stempelstrasse 6, 47167 Duisburg, Germany, +49 203 51 94 – 200  
EU-Netherlands: AnalytiChem Netherlands, Communicatieweg 7, 3641 SG Mijdrecht, The Netherlands, +31 297 286848  
UK: AnalytiChem UK, Unit 7 Launton Business Center, Murdock Road, Bicester, OX26 4XB, England, +44 1869 355 500  
USA: AnalytiChem USA, 227 China Road, Winslow, Maine, 04901, United States, +1 800-244-8378  
Canada: AnalytiChem Canada, 21800 Clark Graham Avenue, Baie d'Urfe, H9X 4B6, Canada, +1 514-457-0701  
Australia: ORE Research & Exploration Pty Ltd, 37A Hosie Street, Bayswater North, 3153, Australia, +61 3 9729 0333  
+44 20 3807 3798 (CHEMTREC)

**1.4. Emergency telephone number:****Further Information**

inapplicable, this product is a mixture REACH registration number see section 3

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**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Flam. Liq. 2; H225  
Repr. 2; H361d  
Acute Tox. 4; H302  
Skin Irrit. 2; H315  
STOT SE 2; H371 H336  
STOT RE 2; H373  
Asp. Tox. 1; H304  
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

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

toluene  
methanol  
tetrabutylammonium iodide

**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.
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.
P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves/protective clothing and eye protection/face protection.
P308	IF exposed or concerned:
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**

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**3.2. Mixtures****Relevant ingredients**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (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, Skin Irrit. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1, Aquatic Chronic 3; H225 H361d H315 H336 H373 H304 H412			
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			
311-28-4	tetrabutylammonium iodide			1 - < 5 %
	206-220-5			
	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3; H302 H315 H319 H335			

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	85 - < 90 %
		inhalation: LC50 = 28,1 mg/l (vapours); dermal: LD50 = > 5000 mg/kg; oral: LD50 = 5580 mg/kg	
67-56-1	200-659-6	methanol	5 - < 10 %
		inhalation: LC50 = 128,2 mg/l (vapours); inhalation: ATE = 0,5 mg/l (dusts or mists); dermal: ATE = 300 mg/kg; oral: LD50 = 6000 mg/kg STOT SE 1; H370: >= 10 - 100 STOT SE 2; H371: >= 3 - < 10	
311-28-4	206-220-5	tetrabutylammonium iodide	1 - < 5 %
		oral: LD50 = 1990 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**

Self-protection of the first aider

**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.

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

**After ingestion**

Observe risk of aspiration if vomiting occurs.

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 (CO<sub>2</sub>)

**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 (CO<sub>2</sub>), Carbon monoxide

Nitrogen oxides (NO<sub>x</sub>)

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.

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**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**

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.  
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**

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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.

**Hints on joint storage**

National regulations

**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****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
67-56-1	Methanol	200	266		TWA (8 h)	WEL
		250	333		STEL (15 min)	WEL
108-88-3	Toluene	50	191		TWA (8 h)	WEL
		100	384		STEL (15 min)	WEL

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## 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/m³
Worker DNEL, acute		inhalation	systemic	260 mg/m³
Worker DNEL, long-term		inhalation	local	260 mg/m³
Worker DNEL, acute		inhalation	local	260 mg/m³
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

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**PNEC values**

CAS No	Substance	
Environmental compartment		Value
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
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 sediment		7,7 mg/kg
Micro-organisms in sewage treatment plants (STP)		100 mg/l
Soil		100 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

Face protection umbrella

**Hand protection**

Tested protective gloves must be worn. 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.

**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

The entrepreneur 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.

**Thermal hazards**

No data available

**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.



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Danger of explosion

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	colourless
Odour:	like: Hydrocarbons, aromatic
Odour threshold:	No data available
Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flammability:	No data available
Lower explosion limits:	No data available
Upper explosion limits:	No data available
Flash point:	~6 °C
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH-Value:	> 12
Viscosity / kinematic:	No data available
Water solubility:	No data available
Solubility in other solvents	No data available
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	No data available
Dispersion stability:	No data available
Vapour pressure:	No data available
Density:	0,859 g/cm <sup>3</sup>
Relative density:	No data available
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	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.

**Sustained combustibility:**

Sustained combustibility

**Self-ignition temperature**

Solid:

No data available

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:	No data available
Sublimation point:	No data available
Softening point:	No data available
Pour point:	No data available

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Viscosity / dynamic:  
(at 20 °C)

No data available

Flow time:

No data available

**Further Information**

No data available

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****Toxicokinetics, metabolism and distribution**

Avoid exposure - obtain special instructions before use.

**Acute toxicity**

Harmful if swallowed.

**ATEmix calculated**

ATE (oral) 1219 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist)  
> 5 mg/l

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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
67-56-1	methanol				
	oral	LD50 6000 mg/kg	Monkey	Amer J Ophthalmol 40: 76-83 (cited in DG	Determination of the acute toxicity of t
	dermal	ATE 300 mg/kg			
	inhalation (4 h) vapour	LC50 128,2 mg/l	Rat	Study report (1980)	Study performed according to internal co
	inhalation dust/mist	ATE 0,5 mg/l			
311-28-4	tetrabutylammonium iodide				
	oral	LD50 1990 mg/kg	Rat	ChemIDplus, A Toxnet Database - 2017 (20	other: as below

**Irritation and corrosivity**

Skin corrosion/irritation: Causes skin irritation.

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

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.

**Information on likely routes of exposure**

There are no data available on the mixture itself.

**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**

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**Endocrine disrupting properties**

There are no data available on the mixture itself.

**Other information**

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

**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.

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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 mg/l > 433	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 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 ca. 22000 mg/l	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
311-28-4	tetrabutylammonium iodide					
	Acute fish toxicity	LC50 mg/l > 100	96 h	Danio rerio	REACH Registration Dossier	OECD Guideline 203
	Acute algae toxicity	ErC50 mg/l 203,268	96 h	green algae	REACH Registration Dossier	other: Modeling database
	Acute crustacea toxicity	EC50 2,8 mg/l	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**

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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
67-56-1	methanol	-0,77
311-28-4	tetrabutylammonium iodide	0,869

**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
311-28-4	tetrabutylammonium iodide	70,79	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 UK REACH.

**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 1992

**14.2. UN proper shipping name:**

FLAMMABLE LIQUID, TOXIC, N.O.S. (tetrabutylammonium hydroxide, toluene)

**14.3. Transport hazard class(es):**

3

**14.4. Packing group:**

II

Hazard label:

3+6.1

Classification code:

FT1

Special Provisions:

274

Limited quantity:

1 L

Excepted quantity:

E2

Transport category:

2

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Hazard No: 336

Tunnel restriction code: D/E

**Inland waterways transport (ADN)****14.1. UN number or ID number:** UN 1992**14.2. UN proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (tetrabutylammonium hydroxide, toluene)**14.3. Transport hazard class(es):** 3**14.4. Packing group:** II

Hazard label: 3+6.1

Classification code: FT1

Special Provisions: 274 802

Limited quantity: 1 L

Excepted quantity: E2

**Marine transport (IMDG)****14.1. UN number or ID number:** UN 1992**14.2. UN proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (tetrabutylammonium hydroxide, toluene)**14.3. Transport hazard class(es):** 3**14.4. Packing group:** II

Hazard label: 3+6.1

Special Provisions: 274

Limited quantity: 1 L

Excepted quantity: E2

EmS: F-E, S-D

**Air transport (ICAO-TI/IATA-DGR)****14.1. UN number or ID number:** UN 1992**14.2. UN proper shipping name:** FLAMMABLE LIQUID, TOXIC, N.O.S. (tetrabutylammonium hydroxide, toluene)**14.3. Transport hazard class(es):** 3**14.4. Packing group:** II

Hazard label: 3+6.1

Special Provisions: A3

Limited quantity Passenger: 1 L

Passenger LQ: Y341

Excepted quantity: E2

IATA-packing instructions - Passenger: 352

IATA-max. quantity - Passenger: 1 L

IATA-packing instructions - Cargo: 364

IATA-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, Entry 75

Information according to Directive P5c FLAMMABLE LIQUIDS

2012/18/EU (SEVESO III):

**National regulatory information**

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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

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 4,7,8,9,11,13.

**Abbreviations and acronyms**

Flam. Liq. 2: Flammable liquids, hazard category 2  
 Acute Tox. 3: Acute toxicity, hazard category 3  
 Acute Tox. 4: Acute toxicity, hazard category 4  
 Asp. Tox. 1: Aspiration hazard, hazard category 1  
 Skin Irrit. 2: Skin irritation, hazard category 2  
 Eye Irrit. 2: Eye irritation, hazard category 2  
 Repr. 2: Reproductive toxicity, hazard category 2  
 STOT SE 1: Specific target organ toxicity - single exposure, hazard category 1  
 STOT SE 2: Specific target organ toxicity - single exposure, 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 Chronic 3: Hazardous to the aquatic environment, long-term hazard category: Chronic 3

**Classification for mixtures and used evaluation method**

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Repr. 2; H361d	Calculation method
Acute Tox. 4; H302	Calculation method
Skin Irrit. 2; H315	Calculation method
STOT SE 2; H371	Calculation method
STOT SE 3; H336	Calculation method
STOT RE 2; H373	Calculation method
Asp. Tox. 1; H304	Calculation method
Aquatic Chronic 3; H412	Calculation method

**Relevant H and EUH statements (number and full text)**

H225 Highly flammable liquid and vapour.  
 H301 Toxic if swallowed.  
 H302 Harmful if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H311 Toxic in contact with skin.  
 H315 Causes skin irritation.  
 H319 Causes serious eye irritation.  
 H331 Toxic if inhaled.  
 H335 May cause respiratory irritation.  
 H336 May cause drowsiness or dizziness.  
 H361d Suspected of damaging the unborn child.  
 H370 Causes damage to organs (eyes, central nervous system).  
 H371 May cause damage to organs.  
 H373 May cause damage to organs through prolonged or repeated exposure.



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H412 Harmful to aquatic life with long lasting effects.

**Further Information**

Provide appropriate information, instructions and training to users

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.

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