

SAFETY DATA SHEET

according to 1907/2006/EC, Article 3

Version no. : 2.1
Prepared on : 30.03.2019
Revised on : 23.09.2025

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

1.1 Product identifiers

Product name Tetrabutylammonium hydroxide solution
Product Number PSR7574
Brand PureSynth Research Chemicals
CAS No. 2052-49-5

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

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company PureSynth Research Chemicals
64683 Einhausen Marie-Curie-Straße. 3, Germany

1.4 Emergency telephone number

Worldwide Helpline No.: 1800-8908-260

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

Skin corrosion, (Category 1), H314

Serious eye damage, (Category 1), H318

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word

Danger

Hazard statement(s)

H314 Causes severe skin burns and eye damage.

Precautionary statement(s)

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

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water

P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P363	Wash contaminated clothing before reuse.
P405	Store locked up.
Supplemental Hazard Statements	none

2.3 Other hazards:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition / information on ingredients

3.1 Substances

Common names & Synonyms	Mol. formula	CAS number
	C ₁₆ H ₃₇ NO	2052-49-5
Component	Classification	Concentration
Tetrabutylammonium hydroxide	Flam. Liq. 3; Acute Tox. 4; Skin Corr. 1B; Eye Dam. 1; H226, H302, H314, H318	>= 30 - < 50 %

SECTION 4: First aid measures

Description of first aid measures

General advice	First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air. Call in physician.
In case of skin contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
In case of eye contact	After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
If swallowed	After swallowing: make victim drink water (two glasses at most), avoid vomiting (risk of perforation). Call a physician immediately. Do not attempt to neutralise.
Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed	No data available

SECTION 5: Fire fighting measures

Extinguishing media	
Suitable extinguishing media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Special hazards arising from the substance or mixture	Carbon oxides Nitrogen oxides (NO _x) Not Combustible.

Advice for fire-fighters	Ambient fire may liberate hazardous vapours. Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Further information	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, and consult an expert. For personal protection see section 8.
Environmental precautions	Do not let product enter drains. Risk of explosion.
Methods and materials for containment and cleaning up	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent and neutralizing material. Dispose of properly. Clean up affected area
Reference to other sections	For disposal see section 13.

SECTION 7: Handling and storage

Precautions for safe handling	For precautions see section 2.2
Conditions for safe storage, including any incompatibilities	Storage conditions: Tightly closed. Keep locked up or in an area accessible only to qualified or authorized persons. Storage class: Storage class (TRGS 510): 8B: Non-combustible, corrosive hazardous materials
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls / Personal protection

Control parameters	Ingredients with workplace control parameters
Exposure controls	
Appropriate engineering controls	No data available.
Personal protective equipment:	
Eye / face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles
Skin protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.
Body Protection	Protective clothing
Respiratory protection	required when vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards:

DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system. Recommended Filter type: Filter type ABEK. 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.
Do not let product enter drains.

Control of environmental exposure

SECTION 9: Physical and chemical properties

Appearance	Form: Liquid Colour: Colourless
Odour	No data available
pH - Value	14.0 at 100%
Density	0.99 g/mL at 25 °C
Boiling Point	> 100 °C at 1.013 hPa
Melting Point	No data available
Solubility in water	No data available
Flash point	No data available
Vapour pressure	No data available
Auto -ignition temperature	Not applicable
Vapour density	No data available
Flammability (solid, gas)	No data available
Evaporation rate	No data available
Partition coefficient: n- octanol / water	No data available
Viscosity	Viscosity, kinematic: No data available Viscosity, dynamic: No data available
Explosive properties	Not classified as explosive.
Upper / lower flammability or explosive limits	No data available
Oxidizing properties	No data available

Other safety information: No data available.

SECTION 10: Stability and reactivity

Reactivity	No data available
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature).
Possibility of hazardous reactions	No data available
Condition to avoid	no information available
Incompatible materials	Strong acids, Corrodes metal
Hazardous decomposition products	In the event of fire: see section 5

SECTION 11: Toxicological information

Acute toxicity	Acute toxicity estimate Oral - > 2.000 mg/kg (Calculation method) Symptoms: If ingested, severe burns of the mouth and throat, as well
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as a danger of perforation of the esophagus and the stomach.
Symptoms: mucosal irritations, Cough, Shortness of breath,
Possible damages:, damage of respiratory tract
Dermal: No data available

Skin corrosion/irritation	No data available.
Serious eye damage/eye irritation	Remarks: Mixture causes serious eye damage. Risk of blindness!
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional Information	
Endocrine disrupting properties	
Product:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Tetrabutylammonium hydroxide:

Acute toxicity	LD50 Oral - Rat - female - 1.000 mg/kg (OECD Test Guideline 423) Acute toxicity estimate Oral - 1.000 mg/kg (ATE value derived from LD50/LC50 value) Inhalation: No data available Dermal: No data available
Skin corrosion/irritation	Remarks: Causes skin burns.
Serious eye damage/eye irritation	Remarks: Causes serious eye damage.
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available

SECTION 12: Ecological information

Toxicity

Toxicity to fish	static test LC50 - Danio rerio (zebra fish) - > 100 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	No data available
Toxicity to algae	No data available
Toxicity to bacteria	No data available

Persistence and degradability	No data available
Biodegradability	No data available
Bio accumulative potential	No data available
Mobility in soil	No data available
Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Endocrine disrupting properties	
Product:	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other adverse effects	No data available

SECTION 13: Disposal considerations

Waste treatment methods No data available
Products

SECTION 14: Transport information

	UN no.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
ADR / RID	3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Tetrabutylammonium hydroxide)	8	II	No
IMDG	3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Tetrabutylammonium hydroxide)	8	II	No
IATA	3267	CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (Tetrabutylammonium hydroxide)	8	II	No

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.

Other regulations:

Take note of Dir 94/33/EC on the protection of young people at work.

Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

The information in this SDS is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The user must be determined suitability of this information for his application.