

Tetramethylammonium hydroxide solution 25%

Product Stewardship Summary

Chemical Name:	Tetramethylammonium hydroxide solution
Synonyms:	tetramethylammonium
CAS Number:	75-59-2
EC (EINECS) Number:	200-882-9
Revision number:	1-2026

- **Chemical identification and uses:** Tetramethylammonium hydroxide (TMAH or TMAOH) is a quaternary ammonium salt with molecular formula $N(CH_3)_4^+ OH^-$. It is commonly encountered in form of concentrated solutions in water or methanol. TMAH in solid state and its aqueous solutions are all colorless, but may be yellowish if impure. Although TMAH has virtually no odor when pure, samples often have a strong fishy smell due to presence of trimethylamine which is a common impurity. TMAH is one of the most common reagents used in thermochemolysis, an analytical technique involving both pyrolysis and chemical derivatization of analytes. It is also used in plating and surface treating agents, as process regulator, process aid, as buffer, rinsants and ion exchange and surface-active agents in electronics and for the anisotropic etching of silicon.
- **Potential exposures:** Occupational exposure to Tetramethylammonium hydroxide may occur. During product formulation, oral and dermal exposure may occur, particularly where manual or open processes are used. These could include transfer and blending activities, quality control analysis, and cleaning and maintaining equipment. Worker exposure to the chemicals at lower concentrations could also occur while using formulated products containing the chemicals. The level and route of exposure will vary depending on the method of application and work practices employed. Good manufacturing and industrial hygiene practices should be followed to prevent or reduce contact. See the Safety Data Sheet (SDS) for additional information.
- **Human Health hazards:** According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Tetramethylammonium hydroxide can be fatal if swallowed or upon contact with skin. It causes severe skin burns and eye damage and has potential to cause toxicity to central nervous system upon single exposure. It causes damage to organs through prolonged or repeated exposure in contact with skin especially liver and thymus. One should refer to the Safety Data Sheet (SDS) for additional information and any specific protective information.
- **Environmental Health hazards:** Tetramethylammonium hydroxide is toxic to aquatic life with long lasting effects.
- Please contact us at PSCustomerCare@Solstice.com for more information. Additional information may also be found at the following links:

Pubchem – Tetramethylammonium hydroxide

This product stewardship summary is intended to give general information about the chemical or categories of chemicals addressed. It is not intended to provide an in-depth discussion of all health and safety information. Additional information on the chemical is available through the applicable Material Safety Data Sheet which should be consulted before use of the chemical. The product stewardship summary does not supplant or replace required regulatory and/or legal communication documents. Statements concerning use of our products are made without warranty that any such use is free of patent infringement and are not recommendations to infringe any patent.