

MATERIAL SAFETY DATA SHEET
Tetramethylammonium hydroxide, 25% in water

Section 1 - Chemical Product and Company Identification

MSDS Name:	Tetramethylammonium hydroxide, 25% in water
Catalog Numbers:	42052-0000, 42052-0250, 42052-1000
Synonyms:	
Company Identification:	Acros Organics BVBA Janssen Pharmaceuticaaan 3a 2440 Geel, Belgium
Company Identification: (USA)	Acros Organics One Reagent Lane Fair Lawn, NJ 07410
For information in the US, call:	800-ACROS-01
For information in Europe, call:	+32 14 57 52 11
Emergency Number, Europe:	+32 14 57 52 99
Emergency Number US:	201-796-7100
CHEMTREC Phone Number, US:	800-424-9300
CHEMTREC Phone Number, Europe:	703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#	Hazard Symbols:	Risk Phrases:
75-59-2	Tetramethylammonium hydroxide	23-27%	200-882-9	C	20/21/22 34
7732-18-5	Water	73-77%	231-791-2		

Text for R-phrases: see Section 16

Hazard Symbols: C



Risk Phrases: 20/21/22 34

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Harmful by inhalation, in contact with skin and if swallowed. Causes burns. Air sensitive.

Potential Health Effects

- Eye:** Causes eye burns.
- Skin:** Harmful if absorbed through the skin. Causes skin burns. May cause dermatitis.
- Ingestion:** Harmful if swallowed. Causes severe digestive tract burns with abdominal pain, vomiting, and possible death. May cause headache.
- Inhalation:** Harmful if inhaled. May cause irritation of the respiratory tract with burning pain in the nose and throat, coughing, wheezing, shortness of breath and pulmonary edema. Causes chemical

burns to the respiratory tract. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema.

Chronic:

Section 4 - First Aid Measures

- Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Do NOT allow victim to rub eyes or keep eyes closed.
- Skin:** Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes.
- Ingestion:** Do not induce vomiting. Get medical aid immediately.
- Inhalation:** Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

Notes to Physician:

Section 5 - Fire Fighting Measures

- General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear.
- Extinguishing Media:** Use foam, dry chemical, or carbon dioxide.

Section 6 - Accidental Release Measures

- General Information:** Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container.

Section 7 - Handling and Storage

- Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Do not breathe dust, vapor, mist, or gas. Do not get in eyes, on skin, or on clothing. Use only in a chemical fume hood.
- Storage:** Store in a cool, dry place. Store in a tightly closed container. Corrosives area. Store under an inert atmosphere.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

CAS# 75-59-2:

CAS# 7732-18-5:

Personal Protective Equipment

- Eyes:** Wear chemical splash goggles.
- Skin:** Wear appropriate protective gloves to prevent skin exposure.
- Clothing:** Wear appropriate protective clothing to prevent skin exposure.
- Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid
Color: yellowish
Odor: ammonia-like
pH: >12
Vapor Pressure: Not available
Viscosity: Not available
Boiling Point: 110 deg C @760mmHg (230.00°F)
Freezing/Melting Point: Not available
Autoignition Temperature: Not available
Flash Point: Not available
Explosion Limits: Lower: Not available
Explosion Limits: Upper: Not available
Decomposition Temperature: Not available
Solubility in water: Soluble
Specific Gravity/Density: 1.020
Molecular Formula: C4H13NO
Molecular Weight: 91.15

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures. Absorbs carbon dioxide from the air.
Conditions to Avoid: Incompatible materials, exposure to air, temperatures above 75°C (167°F).
Incompatibilities with Other Materials Metals, strong oxidizing agents, strong acids.
Hazardous Decomposition Products Nitrogen oxides, carbon monoxide, carbon dioxide, nitrogen, ammonia, amines.
Hazardous Polymerization Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 75-59-2: PA0875000
CAS# 7732-18-5: ZC0110000
LD50/LC50: RTECS:
CAS# 75-59-2: Dermal, guinea pig: LD50 = 25 mg/kg;
. RTECS:
CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg;
. **Carcinogenicity:** Tetramethylammonium hydroxide - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
Other: See actual entry in RTECS for complete information. The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Other: See "The dictionary of substances and their effects" (editor: M.L. Richardson) for more information.

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

	IATA	IMO	RID/ADR
Shipping Name:	TETRAMETHYLAMMONIUM HYDROXIDE	TETRAMETHYLAMMONIUM HYDROXIDE	TETRAMETHYLAMMONIUM HYDROXIDE
Hazard Class:	8	8	8
UN Number:	1835	1835	1835
Packing Group:	II	II	II

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: C

Risk Phrases:

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 34 Causes burns.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 75-59-2: Not available

CAS# 7732-18-5: Not available

Canada

CAS# 75-59-2 is listed on Canada's DSL List

CAS# 7732-18-5 is listed on Canada's DSL List

US Federal

TSCA

CAS# 75-59-2 is listed on the TSCA Inventory.

CAS# 7732-18-5 is listed on the TSCA Inventory.

Section 16 - Other Information

Text for R-phrases from Section 2

R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 34 Causes burns.

MSDS Creation Date: 10/29/1996

Revision #2 Date 4/18/2005

Revisions were made in Sections: General revision.

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company

has been advised of the possibility of such damages.
