



SAFETY DATA SHEET (SDS)

Product Name: TAMAPURE-AA TMAH25%

Page 1 of 4

Section 1 PRODUCT INFORMATION

Product Name TAMAPURE-AA TMAH25%
Company Name Tama Chemicals Co., Ltd.
Company Address 6-1 Higashidacho, Kawasaki-ku, Kawasaki City, Kanagawa 210-0005, Japan
Telephone No. 81(44)200-1702
FAX No. 81(44)200-1707
Emergency phone No. 81(44)200-1702
Reference number TAMA-UAR013-01-2 (E)

Section 2 HAZARDS IDENTIFICATION

Emergency Overview

Danger! Corrosive. Causes eye and skin burns. May cause severe respiratory tract irritation with possible burns in mist or aerosol form. May cause severe digestive system tract irritation with possible burns if ingested. May be harmful or fatal if inhaled.

Category	Hazard category	Hazard statement
ACUTE TOXICITY - ORAL	3	Toxic if swallowed
ACUTE TOXICITY - DERMAL	3	Toxic in contact with skin
SKIN CORROSION / IRRITATION	1	Causes severe skin burns and eye damage
EYE DAMAGE / IRRITATION	1	Causes serious eye damage
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY(SINGLE EXPOSURE)	1	Cause damage to organs nerves system

Symbol



Section 3 COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	Weight %
TMAH	75-59-2	25% ± 0.5%
Water	7732-18-5	balance
Hazard Symbols:	C	
Risk Phrases:	R35	

N/E = Not Established

N/A = Not Applicable

Date of last modification:

1/4/18



SAFETY DATA SHEET (SDS)

Product Name: TAMAPURE-AA TMAH25%

Page 2 of 4

Section 4 FIRST AID MEASURES

Emergency and First Aid Procedures:

- Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of water or milk. Never give anything by mouth to an unconscious person. Get medical aid immediately. Do not induce vomiting.
- Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Prompt action is essential. Seek medical attention.
- Skin Contact:** In case of contact, immediately flush skin with water for at least 15 minutes while removing contaminated clothing, shoes. Wash clothing before reuse.
- Eye Contact:** In case of contact, flush immediately with water for at least 15 minutes. Seek medical attention.

Section 5 FIRE FIGHTING MEASURES

- Flash Point:** N/A **Auto ignition Temp.:** N/A **NFPA 704M Rating:** 3-0-2
- Special Fire Fighting Procedures:** Wear proper protective clothing. Move containers from fire area if it can be done without risk. Do not get water inside containers. **Fire Extinguishing Media:** Use appropriate media for surrounding fire.
- Toxic Gases Produced:** N/A **Unusual Fire and Explosion Hazards:** N/A

Section 6 ACCIDENTAL RELEASE MEASURES

- General Information:** Use proper personal protective equipment as indicated in Section 8.
- Spills/Leaks:** Contain and absorb spilled product wearing appropriate personal protective equipment. Stop leak if able to do so without risk. Neutralize with acid. Using clean shovel (plastic preferred) place in clean, dry container and cover. Do not use water.

Section 7 HANDLING AND STORAGE

- Handling:** Avoid contact with skin, eyes, and clothing. Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Empty containers retain product residue and can be dangerous. Keep container tightly closed. Avoid ingestion and inhalation. Keep container tightly closed.
- Storage:** Store in corrosion resistant area. Do not store with incompatible materials as Al,Zn,Sn. Keep tightly closed. Keep containers away from heat and out of sun.

Section 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Airborne Exposure Limits:

<u>Component</u>	<u>CAS No.</u>	EINECS	OSHA/PEL	ACGIH/TLV
TMAH	75-59-2		N/E	N/E
Water	7732-18-5		N/E	N/E

- Ventilation System:** Not required.
- Personal respirators:** Not required.
- Skin protection:** Avoid skin contact, wear gloves and protective clothing (lab coat, apron, coveralls).
- Eye protection:** Use chemical safety glasses and/or a full face shield where splashing is possible. Maintain shower/eyewash facilities in work area.

N/E = Not Established N/A = Not Applicable

Date of last modification: 1/4/18



SAFETY DATA SHEET (SDS)

Product Name: TAMAPURE-AA TMAH25%

Page 3 of 4

Section 9 PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point °C (°F)	>100 (>212)	Vapor Pressure (mmHg)	N/E
Melting Point °C (°F)	< -15 (<5)	Vapor Density (air =1)	N/E
Specific Gravity (H ₂ O=1)	1.019(as 25°C)	Evaporation Rate	N/E
Solubility (H ₂ O)	miscible	% Volatiles by volume	N/A
pH	>12.5	Physical State (@STP)	Liquid
Odor Threshold (ppm)	N/E	Coeff. Oil/H ₂ O Partition	N/E
Appearance & Odor	Clear or colorless liquid with slight amine odor		

Section 10 STABILITY AND REACTIVITY

Stability: Stable **Hazardous Polymerization:** Will not occur
Conditions to Avoid: Heat, moisture
Decomposition Products: Oxides of nitrogen, amines, carbon monoxide, carbon dioxide
Incompatible Materials: Most common metals, strong acids, oxidization and a reducing agent

Section 11 TOXICOLOGICAL INFORMATION

A. Toxicity of Components

TMAH
oral-ratLD₅₀ 34-50 mg/kg (100%TMAH)
dermal-ratLD₅₀ 112mg/kg (100%TMAH)

Carcinogenicity: NTP: No IARC: No Z list: No OSHA Reg: No
Reproductive Effects: None Identified

B. Effects of Overexposure:

Inhalation: Severe irritation or burns to respiratory system.
Skin Contact: Severe burns.
Eye Contact: Severe burns.
Skin Absorption: None identified.
Ingestion: Is harmful, may be fatal. Severe burns to mouth, throat and stomach. Nausea, vomiting, kidney dysfunction.
Chronic Effects: Lung damage.
Target Organs: Eyes, skin.
Primary Routes of Entry: Skin contact, eye contact, ingestion, and inhalation.
Medical Conditions Generally Aggravated by Exposure: nervous disease

N/E = Not Established N/A = Not Applicable
Date of last modification: 1/4/18



SAFETY DATA SHEET (SDS)

Product Name: TAMAPURE-AA TMAH25%

Page 4 of 4

Section 12 ECOLOGICAL INFORMATION

Ecotoxicity:

Fish (fresh water) LC₅₀ 462mg/L

Daphnia magna: EC₅₀ 3mg/L(48hr)

Section 13 DISPOSAL CONSIDERATIONS

Disposal Procedure: Dispose in accordance with state and local regulations. Incineration is the recommended disposal method. Waste material is corrosive.

Section 14 TRANSPORT INFORMATION

Proper D.O.T Shipping Name: Tetramethylammonium hydroxide, solution

UN/No.: UN 1835

Hazard Class: 8

Label: Corrosive

Packing Group: II

Section 15 REGULATORY INFORMATION

European Labeling in Accordance with EC Directives

Hazard Symbols:

C Corrosive

Risk/Safety Phrases:

R35 : Causes severe burns.

S2 : Keep out of reach of children.

S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S45 : In case of accident or if you feel unwell, seek medical advice (show the label where possible).

Section 16 OTHER INFORMATION

The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and Tama Chemicals Co.,Ltd. assumes no legal responsibility or liability whatsoever resulting from its use.

N/E = Not Established

N/A = Not Applicable

Date of last modification:

1/4/18