



# SAFETY DATA SHEET (SDS)

**Product Name:** TAMAPURE-AA-10/100 Nitric Acid (HNO<sub>3</sub>)

Page 1 of 4

## Section 1 PRODUCT INFORMATION

Product Name TAMAPURE-AA-10/100 Nitric Acid (HNO<sub>3</sub>) 55%  
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-UAR001-03-4 (E)

## Section 2 HAZARDS IDENTIFICATION

### Emergency Overview

**Danger!** Corrosive. Causes severe burns. May be harmful or fatal if inhaled or swallowed.

Category	Hazard category	Hazard statement
ACUTE TOXICITY - INHALATION	3	Toxic if inhaled
SKIN CORROSION / IRRITATION	1A	Causes severe skin burns and eye damage
EYE DAMAGE / IRRITATION	1	Causes serious eye damage
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (SINGLE EXPOSURE)	1	Causes damage to respiratory system
SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY (REPEATED EXPOSURE)	1	Causes damage to respiratory system and teeth through prolonged or repeated exposure
ASPIRATION TOXICITY	1	May be fatal if swallowed and enters airways

### Symbol



## Section 3 COMPOSITION / INFORMATION ON INGREDIENTS

Component	EINECS No.	Wt %	CAS No.	EC No.
Nitric Acid	231-714-2	55%	7697-37-2	007-004-00-1
Water		balance	7732-18-5	
<b>Hazard Symbols:</b>	C			
<b>Risk Phrases:</b> (see Section 15)	R35			

N/E = Not Established  
Date of last modification:

N/A = Not Applicable  
1/4/18



# SAFETY DATA SHEET (SDS)

Product Name: TAMAPURE-AA-10/100 Nitric Acid (HNO<sub>3</sub>)

Page 2 of 4

## Section 4 FIRST AID MEASURES

### Emergency and First Aid Procedures:

**Ingestion:** Rinse out a mouth. Do not vomit forcibly. Refer for medical attention.  
**Inhalation:** Fresh air, rest. Half-upright position. Refer for medical attention.  
**Skin Contact:** Remove contaminated clothing. Rinse skin with plenty of water or shower.  
**Eye Contact:** First rinse with plenty of water for several minutes.  
(remove contact lenses if easily possible) Refer for medical attention.  
**Exposed:** Get medical attention and take necessary measures.

## Section 5 FIRE FIGHTING MEASURES

**Fire Hazards:** Not combustible.

**Suitable Fire Extinguishing Media:** Use appropriate media for surrounding fire.

**Special Fire Fighting Procedures:** Wear self-contained breathing apparatus with full face piece in positive pressure mode and proper protective clothing. Move containers from fire area if it can be done without risk. Use water spray to keep fire-exposed containers cool. Do not get water inside containers.

**Unusual Fire and Explosion Hazards:** Reacts with organic materials to produce oxygen gas, which can form explosive mixtures with air.

**Decomposition Products:** oxides of nitrogen (NO<sub>x</sub>)

## Section 6 ACCIDENTAL RELEASE MEASURES

**General Information:** Use proper personal protective equipment as indicated in Section 8. Avoid discharge to the environment

**Spills/Leaks:** Contain and absorb spilled product wearing appropriate personal protective equipment. Stop leak if able to do so without risk. Using clean shovel (plastic preferred) place in clean, dry container and cover.

## 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. Avoid ingestion and inhalation.

**Storage:** Store lock up and container tightly closed in a good place of ventilation. Store away from combustibles, reducing substances, bases, metals, organic compounds.

## Section 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### Airborne Exposure Limits:

<u>Component</u>	<u>CAS No.</u>	<u>EINECS No.</u>	<u>ACGIH</u>
Nitric Acid	7697-37-2	231-714-2	2 ppm(TWA) 4 ppm(STEL)

**Ventilation System:** Use general or local exhaust ventilation to meet TWA requirements.

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



# SAFETY DATA SHEET (SDS)

**Product Name:** TAMAPURE-AA-10/100 Nitric Acid (HNO3)

Page 3 of 4

- Personal respirators:** Not required with adequate ventilation. If airborne concentration is above TWA, use of self-contained breathing apparatus (SCBA) is recommended.
- Skin protection:** Avoid skin contact, wear gloves and protective clothing (lab coat, apron, coveralls). Gloves subject to permeation or any sign of degradation must be removed and replaced immediately.
- Eye protection:** Use chemical safety glasses and/or a full face shield where splashing is possible. Maintain shower/eyewash facilities in work area.

## Section 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance & Odor	Clear, colorless or yellowish liquid. Suffocating odor.	Vapor Pressure (kPa)	6.4(20°C,70%)
Flash Point °C (°F)	Not combustible.	Vapor Density (air =1)	2.2
Auto Ignition Temp °C (°F)	N/A	Evaporation Rate	N/E
Boiling Point °C	121 (70%)	% Volatiles by volume	N/A
Melting Point °C (°F)	-42 (70%)	Physical State (@STP)	Liquid
pH	<1.0	Coeff. Oil/H <sub>2</sub> O Partition	N/E
Specific Gravity (H <sub>2</sub> O=1)	1.4 (70%)	Solubility (H <sub>2</sub> O)	miscible

## Section 10 STABILITY AND REACTIVITY

- Stability:** Stable **Hazardous Polymerization:** Will not occur
- Conditions to Avoid:** Water, Heat, sunlight, moisture
- Materials to Avoid:** Most common metals, strong bases, organic materials, strong reducing agents, agents, combustible materials.
- Hazardous Decomposition Products:** Oxides of nitrogen (Nox) , Nitric acid gas

## Section 11 TOXICOLOGICAL INFORMATION

### A. Toxicity of Components

Nitric Acid	orl-humLDL <sub>0</sub>	430mg/kg(IUCLID(2000))
	LC <sub>50</sub>	0.05-0.5mg/L

**Carcinogenicity:** NTP: No IARC: No Z list: No OSHA Reg: No

**Reproductive Effects:** None found.

### B. Effects of Overexposure:

- Inhalation:** Pulmonary edema, circulatory failure, respiratory system damage, collapse, coughing, difficult breathing..
- Skin Contact:** Severe burns.
- Eye Contact:** Severe burns. Risk of blindness.
- Skin Absorption:** None identified.

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



# SAFETY DATA SHEET (SDS)

**Product Name:** TAMAPURE-AA-10/100 Nitric Acid (HNO<sub>3</sub>)

Page 4 of 4

**Ingestion:** Is harmful, may be fatal. Severe burns to mouth, throat and stomach. Nausea, vomiting.  
**Chronic Effects:** May cause damage to teeth.  
**Target Organs:** Eyes, skin, respiratory system, teeth.  
**Primary Routes of Entry:** Skin contact, eye contact, ingestion, and inhalation.  
**Medical Conditions Generally Aggravated by Exposure:** Respiratory system disease.

## Section 12 ECOLOGICAL INFORMATION

**Ecotoxicity:**

No established

**Environmental:**

Forms corrosive mixture with water. Harmful effect on aquatic organisms due to pH shift.

## Section 13 DISPOSAL CONSIDERATIONS

**Disposal Procedure:** Dispose in accordance with state and local regulations. Waste material is corrosive.

## Section 14 TRANSPORT INFORMATION

**Proper D.O.T Shipping Name:** Nitric acid  
**UN/No.:** UN 2031  
**Hazard Class:** 8  
**Label:** Corrosive  
**Packing Group:** II

## Section 15 REGULATORY INFORMATION

**Hazard Symbols:**

C Corrosive

**Risk/Safety Phrases:**

R35 : Causes severe burns.  
S23 : Do not breathe vapor.  
S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S36/37/39 : Wear suitable protective clothing, gloves, and eye/face protection  
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