

## Material Safety Data Sheet

### Section 1 - Chemical Product and Company Identification

<b>MSDS Name:</b>	Trimethylamine-N-oxide dihydrate
<b>Synonyms:</b>	TMANO
<b>Company Identification:</b>	PI Chemicals Ltd. Building B, 633 E Shan Road, Pudong New Area Shanghai 200127, China
<b>Telephone Number:</b>	86-21-58953700
<b>Fax Number:</b>	86-21-58953701

### Section 2 - Product Information

<b>Catalog Number:</b>	PI-30801
<b>CAS Number:</b>	62637-93-8
<b>MDL Number:</b>	MFCD00149077
<b>EC Number:</b>	214-675-6
<b>Purity:</b>	98%

### Section 3 - Physical and Chemical Properties

<b>Physical state:</b>	Solid
<b>Color:</b>	White
<b>Molecular Formula:</b>	C <sub>3</sub> H <sub>9</sub> NO 2H <sub>2</sub> O
<b>Molecular Weight:</b>	111.14
<b>Freezing/Melting Point:</b>	95 - 99 °C (203 - 210 °F) - lit.
<b>Boiling Point:</b>	Undetermined
<b>Flash Point:</b>	Undetermined
<b>Autoignition Temperature:</b>	Undetermined
<b>Refractive Index (n<sub>D</sub>20):</b>	Undetermined
<b>Density:</b>	Undetermined
<b>Decomposition Temperature:</b>	Undetermined
<b>Solubility:</b>	Undetermined

### Section 4 - Hazards Identification

<b>Eye:</b>	Causes eye irritation.
<b>Skin:</b>	Causes skin irritation. Harmful if absorbed through the skin.
<b>Ingestion:</b>	Harmful if swallowed.
<b>Inhalation:</b>	May be harmful if inhaled. Causes respiratory tract irritation.

## **Section 5 - First Aid Measures**

<b>General advice:</b>	Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
<b>If inhaled:</b>	If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.
<b>In case of skin contact:</b>	Wash off with soap and plenty of water. Consult a physician.
<b>In case of eye contact:</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
<b>If swallowed:</b>	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

## **Section 6 - Stability and Reactivity**

<b>Chemical Stability:</b>	Stable under recommended temperatures and pressures.
<b>Materials to avoid:</b>	acids, Acid chlorides, Acid anhydrides, Oxidizing agents.
<b>Hazardous Decomposition Products:</b>	Carbon oxides, nitrogen oxides (NO <sub>x</sub> ).
<b>Hazardous Polymerization:</b>	Has not been reported.

## **Section 7 - Handling and Storage**

<b>Handling:</b>	Avoid breathing dust, vapor, mist, or gas. Keep container tightly closed. Mechanical exhaust required. Normal measures for preventive fire protection.
<b>Storage:</b>	Keep container tightly closed in a dry and well-ventilated place.

## **Section 8 - Personal Protection**

<b>Eyes:</b>	Wear appropriate protective eyeglasses.
<b>Skin:</b>	Wear appropriate protective gloves to prevent skin exposure.
<b>Clothing:</b>	Wear appropriate protective clothing to prevent skin exposure.
<b>Respirators:</b>	Use an approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## **Section 9 - Fire Fighting Measures**

<b>General Information:</b>	As in any fire, wear a self-contained breathing apparatus, MSHA/NIOSH (approved or equivalent) and protective clothing to prevent contact with skin and eyes.
<b>Extinguishing Media:</b>	Use water spray, dry chemical, carbon dioxide, or appropriate foam.

## **Section 10 - Accidental Release Measures**

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Vacuum or sweep up material and place into a suitable disposal container.

### ***Section 11 - Toxicological Information***

**RTECS#:** CAS# 62637-93-8: YH2850000.

**LD50/LC50:** RTECS: YH2850000.

**Carcinogenicity:** Trimethylamine-N-oxide dihydrate –Not listed as a carcinogen by ACGIH, IARC, NTP, or OSHA.

### ***Section 12 - Environmental information***

Not available.

### ***Section 13 - Disposal Consideration***

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

### ***Section 14 - Transport Information***

**IATA:** Not dangerous goods.

**IMO:** Not dangerous goods.

**RID/ADR:** Not dangerous goods.

### ***Section 15 - Regulatory Information***

#### ***European/International Regulations***

European Labeling in Accordance with EC Directives

Hazard Symbols: Xi

Indication of Danger: Irritant

Risk Phrases:

R 36/38: Irritating to eyes and skin.

Safety Phrases:

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

S 36: Wear suitable protective clothing.

**WGK (Water Danger/Protection)**

CAS#62637-93-8: 2

**US Federal**

**TSCA**

CAS# 62637-93-8 is not listed on the TSCA Inventory. It is for research and development use only.

## ***Section 16 - Additional Information***

***MSDS Creation Date:*** 27 July, 2009  
***Update:*** 11 August, 2011

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