Section 1 - Product and Company Information

Product Name: TRIMETHYLAMINE, PRESSURE TIN WITH 100 M&
Product Number: 92250
Brand: FLUKA

Company: Sigma-Aldrich Canada, Ltd
Street Address: 2149 Winston Park Drive
City, State, Zip, Country: Oakville ON L6H 6J8 CA
Technical Phone: 9058299500
Emergency Phone: 800-424-9300
Fax: 9058299292

Section 2 - Composition/Information on Ingredient

Substance Name: TRIMETHYLAMINE
CAS #: 75-50-3
SARA 313: No

Formula: C₃H₉N
Synonyms: N,N-Dimethylmethanamine * Dimethylmethaneamine *
          Trimethylamine (ACGIH)
RTECS Number: PA0350000

Section 3 - Hazards Identification

EMERGENCY OVERVIEW
Flammable (USA) Extremely Flammable (EU). Corrosive.
Extremely flammable. Harmful by inhalation and if swallowed.
Causes burns. Risk of serious damage to eyes.
Lachrymator.

HMIS RATING
HEALTH: 3
FLAMMABILITY: 4
REACTIVITY: 1

NFPA RATING
HEALTH: 3
FLAMMABILITY: 4
REACTIVITY: 1

For additional information on toxicity, please refer to Section 11.

Section 4 - First Aid Measures

ORAL EXPOSURE
If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. Do not induce vomiting.

INHALATION EXPOSURE
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.
DERMAL EXPOSURE
In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

EYE EXPOSURE
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

Section 5 - Fire Fighting Measures

FLAMMABLE HAZARDS
Flammable Hazards: Yes

EXPLOSION HAZARDS
Vapor may travel considerable distance to source of ignition and flash back. Forms explosive mixtures in air. Container explosion may occur under fire conditions.

FLASH POINT
20 °F  -7 °C  Method: closed cup

EXPLOSION LIMITS
Lower: 2 %  Upper: 11.6 %

AUTOIGNITION TEMP
190 °C

FLAMMABILITY
N/A

EXTINGUISHING MEDIA
Suitable: Carbon dioxide, dry chemical powder, or appropriate foam. Use water spray or fog nozzle to keep cylinder cool. Move cylinder away from fire if there is no risk.

FIREFIGHTING
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Vapor may travel considerable distance to source of ignition and flash back. Emits toxic fumes under fire conditions. Flammable gas. Specific Method(s) of Fire Fighting: Use water spray to cool fire-exposed containers.

Section 6 - Accidental Release Measures

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL
Evacuate area and keep personnel upwind. Shut off all sources of ignition. Shut off leak if there is no risk.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)
Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP
Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.
Section 7 - Handling and Storage

HANDLING
User Exposure: Do not breathe gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE
Suitable: Keep tightly closed. Keep away from heat, sparks, and open flame.

SPECIAL REQUIREMENTS
Contents under pressure. Moisture sensitive.

Section 8 - Exposure Controls / PPE

ENGINEERING CONTROLS
Safety shower and eye bath. Use nonsparking tools. Use only in a chemical fume hood.

PERSONAL PROTECTIVE EQUIPMENT
Respiratory: Government approved respirator.  
Hand: Compatible chemical-resistant gloves.  
Eye: Chemical safety goggles.  
Other: Faceshield (8-inch minimum).

GENERAL HYGIENE MEASURES
Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

EXPOSURE LIMITS, RTECS

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<th>Country</th>
<th>Source</th>
<th>Type</th>
<th>Value</th>
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<td>ACGIH</td>
<td>STEL</td>
<td>15 PPM</td>
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<tr>
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<td>ACGIH</td>
<td>TWA</td>
<td>5 PPM</td>
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EXPOSURE LIMITS

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<th>Source</th>
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<th>Value</th>
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<td>12 mg/m3</td>
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<tr>
<td>Poland</td>
<td>NDSCh</td>
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<td>24 mg/m3</td>
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<td>Poland</td>
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Section 9 - Physical/Chemical Properties

**Appearance**

Physical State: Clear liquid

Color: Colorless

**Property**

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<tr>
<th>Property</th>
<th>Value</th>
<th>At Temperature or Pressure</th>
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<tbody>
<tr>
<td>Molecular Weight</td>
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<tr>
<td>pH</td>
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<td>BP/BP Range</td>
<td>3 – 4 °C</td>
<td>760 mmHg</td>
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<tr>
<td>MP/MP Range</td>
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<tr>
<td>Freezing Point</td>
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<tr>
<td>Vapor Pressure</td>
<td>687.61 mmHg</td>
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<td>Vapor Density</td>
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<td>Saturated Vapor Conc.</td>
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<tr>
<td>SG/Density</td>
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<tr>
<td>Bulk Density</td>
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</table>
Odor Threshold          N/A
Volatile%               N/A
VOC Content             N/A
Water Content           N/A
Solvent Content         N/A
Evaporation Rate        N/A
Viscosity               N/A
Surface Tension         N/A
Partition Coefficient   N/A
Decomposition Temp.     N/A
Flash Point             20 °F -7 °C         Method: closed cup
Explosion Limits        Lower: 2 %
                       Upper: 11.6 %
Flammability            N/A
Autoignition Temp       190 °C
Refractive Index        1.3443
Optical Rotation        N/A
Miscellaneous Data      N/A
Solubility              N/A

N/A = not available

Section 10 - Stability and Reactivity

STABILITY
Stable: Stable.
Conditions to Avoid: Moisture.
Materials to Avoid: Strong oxidizing agents, Brass, Magnesium,
Zinc Copper, Copper alloys Mercury/mercury oxides., Tin/tin oxides

HAZARDOUS DECOMPOSITION PRODUCTS
Hazardous Decomposition Products: Thermal decomposition may
produce carbon monoxide, carbon dioxide, and nitrogen oxides.

HAZARDOUS POLYMERIZATION
Hazardous Polymerization: Will not occur

Section 11 - Toxicological Information

ROUTE OF EXPOSURE
Skin Contact: Causes burns.
Skin Absorption: May be harmful if absorbed through the skin.
Eye Contact: Causes burns.
Inhalation: Material is extremely destructive to the tissue of
the mucous membranes and upper respiratory tract. Harmful if
inhaled.
Ingestion: Harmful if swallowed.

SIGNS AND SYMPTOMS OF EXPOSURE
Material is extremely destructive to tissue of the mucous
membranes and upper respiratory tract, eyes, and skin.
Inhalation may result in spasm, inflammation and edema of the
larynx and bronchi, chemical pneumonitis, and pulmonary edema.
Symptoms of exposure may include burning sensation, coughing,
wheezing, laryngitis, shortness of breath, headache, nausea, and
vomiting.

TOXICITY DATA
Oral
Rat
500 mg/kg
LD50

Inhalation
Mouse
19,000 mg/m3


Intraperitoneal
Mouse
946 MG/KG

LD50

Intravenous
Mouse
90 MG/KG

LD50

Inhalation
Mammal
19,000 mg/m3

LC50

CHRONIC EXPOSURE - TERATOGEN

Species: Mouse
Dose: 2960 MG/KG
Route of Application: Intraperitoneal
Exposure Time: (6-15D PREG)
Result: Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

CHRONIC EXPOSURE - REPRODUCTIVE HAZARD

Species: Mouse
Dose: 4430 MG/KG
Route of Application: Intraperitoneal
Exposure Time: (6-15D PREG)
Result: Effects on Fertility: Litter size (e.g.; # fetuses per litter; measured before birth). Effects on Newborn: Physical.

Section 12 - Ecological Information

No data available.

Section 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION
Contact a licensed professional waste disposal service to dispose of this material. Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Observe all federal, state, and local environmental regulations.

APPROPRIATE METHOD OF DISPOSAL OF CONTAMINATED PACKAGING
Caution: no-return cylinder. Do not reuse. Empty cylinder will contain hazardous residue. Follow proper disposal techniques.

Section 14 - Transport Information

DOT
Proper Shipping Name: Trimethylamine, anhydrous
UN#: 1083
Class: 2.1
Packing Group: None
Hazard Label: Flammable gas
PIH: Not PIH

IATA
Proper Shipping Name: Trimethylamine, anhydrous
IATA UN Number: 1083
Hazard Class: 2.1
Not Allowed - Aircraft: Cargo aircraft only. Not permitted on passenger aircraft.

Section 15 - Regulatory Information

EU DIRECTIVES CLASSIFICATION
Symbol of Danger: F+ Xn
R: 12 20 37/38 41
Risk Statements: Extremely flammable. Harmful by inhalation. Irritating to respiratory system and skin. Risk of serious damage to eyes.
S: 16 26 29
Safety Statements: Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Do not empty into drains.

US CLASSIFICATION AND LABEL TEXT
Risk Statements: Extremely flammable. Harmful by inhalation and if swallowed. Causes burns. Risk of serious damage to eyes.
Safety Statements: Keep away from sources of ignition - no smoking. Do not breath gas. Do not empty into drains. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
US Statements: Lachrymator.

UNITED STATES REGULATORY INFORMATION
SARA LISTED: No
TSCA INVENTORY ITEM: Yes

CANADA REGULATORY INFORMATION
WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
DSL: Yes
NDSL: No

Section 16 - Other Information

DISCLAIMER
For R&D use only. Not for drug, household or other uses.

WARRANTY
The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to
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