

## MATERIAL SAFETY DATA SHEET

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Section 1 - Product and Company Information

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Product Name                   TRIPROPYLAMINE, 99+%

Product Number                239712

Brand                           ALDRICH

  

Company                        Sigma-Aldrich

Address                         3050 Spruce Street

                                  SAINT LOUIS MO 63103 US

Technical Phone:               800-325-5832

Fax:                            800-325-5052

Emergency Phone:               314-776-6555

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Section 2 - Composition/Information on Ingredient

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Substance Name	CAS #	SARA 313
TRIPROPYLAMINE	102-69-2	No

Formula                    C9H21N

Synonyms                   Propyldi-n-propylamine \* Tripropylamine (8CI) \*

                              Tri-n-propylamine

RTECS Number:             TX1575000

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Section 3 - Hazards Identification

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## EMERGENCY OVERVIEW

Flammable. Toxic.  
Harmful by inhalation and in contact with skin. Toxic if  
swallowed. Causes burns.  
Readily absorbed through skin.

## HMIS RATING

HEALTH: 3  
FLAMMABILITY: 3  
REACTIVITY: 0

## NFPA RATING

HEALTH: 3  
FLAMMABILITY: 3  
REACTIVITY: 0

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

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Section 4 - First Aid Measures

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## 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.

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### Section 5 - Fire Fighting Measures

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#### FLAMMABLE HAZARDS

Flammable Hazards: Yes

#### EXPLOSION HAZARDS

Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions.

#### FLASH POINT

93.2 °F 34 °C Method: closed cup

#### EXPLOSION LIMITS

Lower: 0.7 % Upper: 5.6 %

#### AUTOIGNITION TEMP

180 °C

#### FLAMMABILITY

N/A

#### EXTINGUISHING MEDIA

Suitable: For small (incipient) fires, use media such as "alcohol" foam, dry chemical, or carbon dioxide. For large fires, apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray; solid streams of water may be ineffective. Cool all affected containers with flooding quantities of water.

#### FIREFIGHTING

Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Specific Hazard(s): Flammable liquid. Emits toxic fumes under fire conditions.

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### Section 6 - Accidental Release Measures

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#### PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition. Use nonsparking tools.

#### 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.

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### Section 7 - Handling and Storage

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## HANDLING

User Exposure: Do not breathe vapor. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

## STORAGE

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

## SPECIAL REQUIREMENTS

Hygroscopic.

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## Section 8 - Exposure Controls / PPE

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### ENGINEERING CONTROLS

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

### PERSONAL PROTECTIVE EQUIPMENT

Respiratory: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air 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.

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## Section 9 - Physical/Chemical Properties

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Appearance	Physical State: Liquid Color: Colorless	
Property	Value	At Temperature or Pressure
Molecular Weight	143.27 AMU	
pH	11.4	20 °C Concentration: 2.6 g/l
BP/BP Range	155.0 - 158.0 °C	760 mmHg
MP/MP Range	- 93.0 °C	
Freezing Point	N/A	
Vapor Pressure	2.9 mmHg	20 °C
Vapor Density	4.9 g/l	
Saturated Vapor Conc.	N/A	
SG/Density	0.753 g/cm <sup>3</sup>	
Bulk Density	N/A	
Odor Threshold	N/A	
Volatile%	N/A	
VOC Content	N/A	
Water Content	N/A	
Solvent Content	N/A	
Evaporation Rate	N/A	
Viscosity	< 0.001 Pas	25 °C
Surface Tension	N/A	
Partition Coefficient	Log Kow: 2.68	
Decomposition Temp.	N/A	

Flash Point	93.2 °F 34 °C	Method: closed cup
Explosion Limits	Lower: 0.7 % Upper: 5.6 %	
Flammability	N/A	
Autoignition Temp	180 °C	
Refractive Index	1.416	
Optical Rotation	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

N/A = not available

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## Section 10 - Stability and Reactivity

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### STABILITY

Stable: Stable.

Conditions to Avoid: Exposure to moisture may affect product quality.

Materials to Avoid: Acids, Oxidizing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide, and nitrogen oxides.

### HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

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## Section 11 - Toxicological Information

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### ROUTE OF EXPOSURE

Skin Contact: Causes burns.

Skin Absorption: Readily absorbed through skin. Harmful if absorbed through skin.

Eye Contact: Causes burns.

Inhalation: Harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: Toxic 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

Inhalation

Rat

1,500 mg/m<sup>3</sup>

LC50

Oral

Rat

96 mg/kg

LD50

Inhalation

Rat

5,100 mg/m<sup>3</sup>

LC50

Inhalation  
Mouse  
3,800 mg/m3  
LC50

Skin  
Rabbit  
570 UL/KG  
LD50

Inhalation  
Mammal  
5,100 mg/m3  
LC50

IRRITATION DATA

Skin  
Rabbit  
Remarks: Severe irritation effect

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Section 12 - Ecological Information

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ACUTE ECOTOXICITY TESTS

Test Type: LC50 Fish  
Species: Leuciscus idus  
Time: 96 h  
Value: 32.0 - 46.0 mg/l

Test Type: LC50 Fish  
Species: Pimephales promelas (Fathead minnow)  
Time: 96 h  
Value: 45.6 - 56.7 mg/l

Test Type: EC50 Daphnia  
Species: Daphnia magna  
Time: 48 h  
Value: 100 mg/l

Test Type: EC50 Algae  
Species: Scenedesmus subspicatus  
Time: 72 h  
Value: 23 mg/l

ELIMINATION

Elimination: > 70 %

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Section 13 - Disposal Considerations

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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.

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Section 14 - Transport Information

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DOT

Proper Shipping Name: Tripropylamine  
UN#: 2260  
Class: 3  
Packing Group: Packing Group III  
Hazard Label: Flammable liquid  
Hazard Label: Corrosive  
PIH: Not PIH

#### IATA

Proper Shipping Name: Tripropylamine  
IATA UN Number: 2260  
Hazard Class: 3  
Packing Group: III

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### Section 15 - Regulatory Information

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#### EU ADDITIONAL CLASSIFICATION

Symbol of Danger: T  
Indication of Danger: Toxic.  
R: 10-20/21-25-34  
Risk Statements: Flammable. Harmful by inhalation and in contact with skin. Toxic if swallowed. Causes burns.  
S: 26-36/37/39-45  
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 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 CLASSIFICATION AND LABEL TEXT

Indication of Danger: Flammable. Toxic.  
Risk Statements: Harmful by inhalation and in contact with skin. Toxic if swallowed. Causes burns.  
Safety Statements: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. 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: Readily absorbed through skin.

#### 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: No  
NDSL: Yes

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### Section 16 - Other Information

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#### 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 appropriate safety precautions. It does not represent any

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