

Material Safety Data Sheet

Version 4.0
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1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Trimethylamine

Product Number : 243205

Brand : Aldrich

Company : Sigma-Aldrich Canada, Ltd
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CANADA

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2. HAZARDS IDENTIFICATION

Emergency Overview

Other hazards which do not result in classification

Lachrymator.

WHMIS Classification

A Compressed Gas

B1

D1B

D2B

Compressed Gas

Flammable gas

Toxic by ingestion

Moderate skin irritant

Moderate respiratory irritant

Moderate eye irritant

GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H280 Contains gas under pressure; may explode if heated.

H302 + H332 Harmful if swallowed or if inhaled.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H371 May cause damage to organs.

Precautionary statement(s)

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/eye protection/face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P410 + P403 Protect from sunlight. Store in a well-ventilated place.

HMIS Classification

Health hazard: 2

Flammability: 4

Physical hazards: 3

Potential Health Effects

Inhalation

May be harmful if inhaled. Causes respiratory tract irritation.

Skin
Eyes
Ingestion

May be harmful if absorbed through skin. Causes skin irritation.
Causes eye irritation.
Toxic if swallowed.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C_3H_9N
Molecular Weight : 59.11 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
Trimethylamine			
75-50-3	200-875-0	612-001-00-9	-

4. FIRST AID MEASURES

General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and cleaning up

Wipe up with absorbent material (e.g. cloth, fleece).

7. HANDLING AND STORAGE

Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Use explosion-proof equipment.

Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated place. Store in cool place.

Recommended storage temperature: 2 - 8 °C

Contents under pressure. Moisture sensitive.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters	Update	Basis
Trimethylamine	75-50-3	TWA	5 ppm 12 mg/m ³	2007-01-01	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required				
		STEL	15 ppm 36 mg/m ³	2007-01-01	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required				
		TWA	5 ppm	2006-11-29	Canada. British Columbia OEL
		STEL	15 ppm	2006-11-29	Canada. British Columbia OEL
		TWAE V	5 ppm	2005-12-17	Canada. Ontario OELs
		STEV	15 ppm	2005-12-17	Canada. Ontario OELs
		TWAE V	5 ppm 12 mg/m ³	2006-12-29	Canada. Quebec OELs
		STEV	15 ppm 36 mg/m ³	2006-12-29	Canada. Quebec OELs

Personal protective equipment

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (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. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand protection

Handle with gloves.

Eye protection

Face shield and safety glasses

Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	Compressed gas
Colour	colourless

Safety data

pH	no data available
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Melting point	-117 °C (-179 °F) - lit.
Boiling point	3 - 4 °C (37 - 39 °F) - lit.
Flash point	-7 °C (19 °F) - closed cup
Ignition temperature	190 °C (374 °F)
Lower explosion limit	2 %(V)
Upper explosion limit	11.6 %(V)
Vapour pressure	916.74 hPa (687.61 mmHg) at 21 °C (70 °F)
Density	0.63 g/cm ³ at 20 °C (68 °F)
Water solubility	no data available
Relative vapour density	2.04 - (Air = 1.0)

10. STABILITY AND REACTIVITY

Chemical stability

Stable under recommended storage conditions.

Conditions to avoid

Avoid moisture.

Heat, flames and sparks.

Materials to avoid

Strong oxidizing agents, Brass, Magnesium, Zinc, Copper, Mercury/mercury oxides., Tin/tin oxides

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO_x)

11. TOXICOLOGICAL INFORMATION

Acute toxicity

LD₅₀ Oral - rat - 500 mg/kg

LC₅₀ Inhalation - mouse - 19,000 mg/m³

Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Excitement. Behavioral:Muscle contraction or spasticity.

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

Reproductive toxicity - mouse - Intraperitoneal

Effects on Fertility: Litter size (e.g.; # fetuses per litter; measured before birth). Effects on Newborn: Physical.

Developmental Toxicity - mouse - Intraperitoneal

Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus).

Specific target organ toxicity - single exposure (GHS)

May cause damage to organs.

Specific target organ toxicity - repeated exposure (GHS)

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion	Toxic if swallowed.
Skin	May be harmful if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation.

Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

Additional Information

RTECS: PA0350000

12. ECOLOGICAL INFORMATION**Toxicity**

Toxicity to fish LC50 - Oryzias latipes - 1,000 mg/l - 48 h

Persistence and degradability

no data available

Bioaccumulative potential

no data available

Mobility in soil

no data available

PBT and vPvB assessment

no data available

Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS**Product**

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. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION**DOT (US)**

UN-Number: 1083 Class: 2.1
Proper shipping name: Trimethylamine, anhydrous
Reportable Quantity (RQ): 100 lbs
Marine pollutant: No
Poison Inhalation Hazard: No

IMDG

UN-Number: 1083 Class: 2.1
Proper shipping name: TRIMETHYLAMINE, ANHYDROUS
Marine pollutant: No

EMS-No: F-D, S-U

IATA

UN-Number: 1083 Class: 2.1
Proper shipping name: Trimethylamine, anhydrous

15. REGULATORY INFORMATION

DSL Status

All components of this product are on the Canadian DSL list.

WHMIS Classification

A	Compressed Gas	Compressed Gas
B1		Flammable gas
D1B		Toxic by ingestion
D2B		Moderate skin irritant
		Moderate respiratory irritant
		Moderate eye irritant

16. OTHER INFORMATION

Further information

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