

Website:- chemicalbull.com MATERIAL SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name : **Trimethylamine**

CAS-No. : 75-50-3

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

1.3 Details of the supplier of the safety data sheet

Company : Chemical Bull Pvt Ltd

123/124, Panchratna, G.I.D.C Char Rasta, Vapi-396195 Dist, Valsad, Gujarat, INDIA **Website:**- chemicalbull.com

Email: info@chemicalbull.com

1.4 Emergency telephone

Emergency Phone : +91 9696960250

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation

Flammable gases Gases under pressure Acute toxicity, Inhalation Skin irritation

Serious eye damage

Specific target organ toxicity - single exposure, Respiratory system, For the full text of

the H-Statements mentioned in this Section, see Section 16.

2.2 Label elements

Labelling according Regulation

Pictogram



Signal word Danger

Hazard statement(s)

H220 Extremely flammable gas.

H280 Contains gas under pressure; may explode if heated.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

P280 Wear protective gloves/ eye protection/ face protection.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable

for breathing. Call a POISON CENTER/ doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue

rinsing.

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

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

Supplemental Hazard

Statements

none

Reduced Labeling (<= 125 ml)

Pictogram



Signal word Danger

Hazard statement(s)

H318 Causes serious eye damage. H220 Extremely flammable gas.

Precautionary statement(s)

P210 Keep away from heat, hot surfaces, sparks, open flames and

other ignition sources. No smoking.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue

rinsing.

Supplemental Hazard

Statements

none

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Contact with liquid or refrigerated gas can cause cold burns and frostbite. Lachrymator.

SECTION 3: Composition/information on ingredients

3.1 Substances

Formula : C₃H₉N Molecular weight : 59.11 g/mol CAS-No. : 75-50-3

Component		Classification	Concentration
trimethylamine			
CAS-No.	75-50-3	Flam. Gas 1A; Press. Gas Liquefied gas; Acute Tox. 4; Skin Irrit. 2; Eye Dam. 1; STOT SE 3; H220, H280, H332, H315, H318, H335 Concentration limits: >= 5 %: Skin Irrit. 2, H315; >= 5 %: Eye Dam. 1, H318; 0,5 - < 5 %: Eye Irrit. 2, H319; >= 5 %: STOT SE 3, H335;	<= 100 %

For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

Show this material safety data sheet to the doctor in attendance.

If inhaled

After inhalation: fresh air.

In case of skin contact

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

If swallowed

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed No data available

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide (CO2) Foam Dry powder

Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

5.2 Special hazards arising from the substance or mixture

Carbon oxides

Nitrogen oxides (NOx)

Combustible.

Pay attention to flashback.

Vapors are heavier than air and may spread along floors.

Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Remove container from danger zone and cool with water. Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe gas. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

6.2 Environmental precautions

Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Stop flow of gas, move leaking cylinder to open air if without risk.

6.4 Reference to other sections

For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.

Advice on protection against fire and explosion

Keep away from open flames, hot surfaces and sources of ignition.

Hygiene measures

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Tightly closed. Keep away from combustible materials and sources of ignition.

Storage stability

Recommended storage temperature

2 - 8 °C

Contents under pressure. Moisture sensitive. Refrigerate before opening.

Storage class

Storage class Gases

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with workplace control parameters

8.2 Exposure controls

Personal protective equipment

Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as Tightly fitting safety goggles

Body Protection

Flame retardant antistatic protective clothing.

Respiratory protection

required when vapours/mists are generated. Our recommendations on filtering respiratory protection are based on the following standards and other accompanying standards relating to the used respiratory protection system.

Recommended Filter type: Filter type ABEK

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

a) Appearance Form: Liquefied gas

Color: colorless

b) Odor No data available

c) Odor Threshold No data availabled) pH No data available

e) Melting Melting point/range: -117 °C - lit.3 - point/freezingpoint

f) Initial boiling point 4 °C - lit. and boiling range

g) Flash point -7 °C - closed cuph) Evaporation rate No data available

i) Flammability (solid, Extremely flammable gas. gas)

j) Upper/lower flammability or explosive limits Upper explosion limit: 11,6 %(V) Lower explosion limit: 2 %(V)

k) Vapor pressure 916,74 hPa at 21 °C l) Vapor density 2,04 - (Air = 1.0)

m) Density 0,63 g/cm3 at 20 °C - lit.

Relative density No data available n) Water solubility at 25 °C soluble

o) Partition coefficient:noctanol/water log Pow: 0,0 at 25 °C - Bioaccumulation is not expected., (Lit.)No

) Autoignition temperature

data available

q) Decomposition temperature

No data available

r) Viscosity Viscosity, kinematic: No data available Viscosity, dynamic: No data available

9.2 Other safety information

Surface tension 17,4 mN/m at -4 °C

Relative vapor 2,04 - (Air = 1.0) density

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

10.3 Possibility of hazardous reactions

Risk of explosion with:

Bromine Chlorine

Ethylene oxide

Mercury

triethylaluminium

Exothermic reaction with:

hydrogen bromide

Hydrogen chloride gas

mercaptans

Strong oxidizing agents

Phosgene

sulphur dioxide

hydrogen sulphide

acids

Carbon monoxide

Acid chlorides

Acid anhydrides

Caution! In contact with nitrites, nitrates, nitrous acid possible liberation of nitrosamines!

10.4 Conditions to avoid

Avoid moisture.

no information available

10.5 Incompatible materials

Aluminum, Lead, Copper, Zinc, Tin, magnesium, rubber

10.6 Hazardous decomposition products

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Oral: No data available

LC50 Inhalation - Rat - male - 4 h - 3500 ppm

Remarks: (ECHA)

LD50 Dermal - Rat - male and female - > 5.000 mg/kg

(OECD Test Guideline 402)

Skin corrosion/irritation

Skin - Rabbit

Result: slight irritation Remarks: (ECHA)

Serious eye damage/eye irritation

Eyes - Rabbit

Result: Causes burns. Remarks: (ECHA) Risk of corneal clouding.

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

Test Type: Ames test

Test system: S. typhimurium

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 471

Result: negative

Test Type: gene mutation test Test system: mouse lymphoma cells

Metabolic activation: with and without metabolic activation

Method: OECD Test Guideline 476

Result: negative

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

11.2 Additional Information

Repeated dose toxicity - Rat - male and female - Oral - NOAEL (No observed adverse effect level) - 40 mg/kg

RTECS: PA0350000

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

After absorption:

Nausea Headache

Other information

Under given conditions, contact with nitrites or nitric acid can lead to the formation of nitrosamines, which have shown themselves to be carcinogenic in animal experiments.

Further data:

Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish semi-static test LC50 - Oryzias latipes (Orange-red killifish) - > 100

mg/l - 96 h

(OECD Test Guideline 203)

Toxicity to daphnia static test EC50 - Daphnia magna (Water flea) - 28 mg/l - 48 h

and other aquatic invertebrates

(OECD Test Guideline 202)

Toxicity to algae static test ErC50 - Pseudokirchneriella subcapitata (green algae) - >

100 mg/l - 72 h

(OECD Test Guideline 201)

Toxicity to bacteria static test EC50 - Pseudomonas putida - 208 mg/l - 17 h

(DIN 38421 TEIL 8)

12.2 Persistence and degradability

Biodegradability aerobic - Exposure time 14 d

Result: 92 % - Readily biodegradable.

(OECD Test Guideline 301C)

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects

Biological effects:

Harmful effect due to pH shift. Further information on ecology

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Pressurised gas bottle: dispose of only in empty condition! See forprocesses regarding the return of chemicals and containers, or contact us there if you have further questions.

SECTION 14: Transport information

14.1 UN number

ADR/RID: 1083 IMDG: 1083 IATA: 1083

14.2 UN proper shipping name

ADR/RID: TRIMETHYLAMINE, ANHYDROUS IMDG: TRIMETHYLAMINE, ANHYDROUS IATA: Trimethylamine, anhydrous

Passenger Aircraft: Not permitted for transport

14.3 Transport hazard class(es)

ADR/RID: 2.1 IMDG: 2.1 IATA: 2.1

14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

14.6 Special precautions for user

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

This material safety data sheet complies with the requirements of Regulation

National legislation

Seveso of the European Parliament and of the : FLAMMABLE GASES Council on the control of major-accident hazards involving dangerous substances.

Other regulations

Observe work restrictions regarding maternity protection in accordance to Dir national regulations where applicable.

Take note on the protection of young people at work.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16: Other information

Full text of H-Statements referred to under sections 2 and 3.

H280 Contains gas under pressure; may explode if heated H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation.	H220	Extremely flammable gas.
H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled.	H280	Contains gas under pressure; may explode if heated.
H319 Causes serious eye irritation. H332 Harmful if inhaled.	H315	Causes skin irritation.
H332 Harmful if inhaled.	H318	Causes serious eye damage.
	H319	Causes serious eye irritation.
H335 May cause respiratory irritation.	H332	Harmful if inhaled.
	H335	May cause respiratory irritation.

Relevant changes since previous version

2. Hazards identification

Further information

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 guarantee of the properties of the product. Chemical Bull Pvt Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product.

See chemicalbull.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale. The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact info@chemicalbull.com