

MATERIAL SAFETY DATA SHEET (MSDS)



PRODUCT NAME- TRI-BUFFER

CAS No.: 77-86-1

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

1.1. Product identifier

Product form	: Substance
Product name	: TRIS BUFFER
Type of product	: BUFFER
Product Grades (Applicable)	: LR, AR,ACS, HPLC
Product Code	: T0089A (Pack size(s):- 500gm, 1Kg, 5Kg,25KG,50KG) T0089L (Pack size(s):- 500gm, 1Kg, 5Kg,25KG,50KG) T0089H (Pack size(s):- 500gm, 1Kg, 5Kg)
CAS No	: 77-86-1
Formula	: $\text{NH}_2\text{C}(\text{CH}_2\text{OH})_3$

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

1.2.1. Relevant identified uses	Industrial;For professional use only : Laboratory chemicals : Manufacture of substances Solvents
1.2.2. Uses advised against	: No additional information available

1.3. Details of the supplier of the safety data sheet

RYZE CHEMIE
W-68,Mankivli MIDC
Badlapur (E), Thane,
Maharashtra-421503
www.ryzechemie.com

1.4. Emergency Telephone Number

+91- 99-3006-04-04 :

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, : H315
Category 2

Serious eye damage/eye irritation, Category 2 : H319
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation : H335
Full text of classification categories and H statements : see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC
Xi; R36/38
Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label Elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



Signal word (CLP) :

Warning

Hazard statements (CLP) :

NA

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H335 - May cause respiratory irritation

Precautionary statements (CLP) :

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

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

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

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Name : TRIS BUFFER

CAS No : 77-86-1

EC-No. : 201-064-4

EC Index-No. : NA

3.2. Mixture

Not applicable

SECTION 4: : First aid measures

4.1. Description of first aid measures

First-aid measures general	:	Call a physician immediately
First-aid measures after inhalation	:	Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
First-aid measures after skin contact	:	Take off immediately all contaminated clothing.Rinse skin with water/shower.Call a physician immediately.
First-aid measures after eye contact	:	Rinse cautiously with water for several minutes.Remove contact lenses,if present and easy to do Continue rinsing. Immediately call a POISON CENTER/doctor.
First-aid measures after ingestion	:	Rinse mouth. Do NOT induce vomiting. Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	:	Dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	:	Do not use a heavy water stream

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Protection during firefighting	:	Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	:	Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
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6.1.1. For non-emergency personnel

Emergency procedures	:	Ventilate spillage area. Evacuate unnecessary personnel. No open flames, no sparks, and no smoking. Avoid contact with skin and eyes. Do not breathe Avoid breathing dust, fume, gas, mist, spray, vapours.
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6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment.Use personal protective equipment as required For further information refer to section 8:
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"Exposure controls/personal protection".

Emergency procedures : Stop release.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material. Collect spillage. On land, sweep or shovel into suitable containers. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin, eyes and clothing. Do not breathe vapours. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapours/spray.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Keep in a cool, well-ventilated place away from heat.

Storage conditions : Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.

Packaging materials : Store always product in container of same material as original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

No additional information available

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

Hand protection	: Protective gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear appropriate mask

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: White crystalline Powder
Molecular mass	: 121.14 g/mol
Colour	: white
Odour	: Odourless
Odour threshold	: No data available
pH	: 10.5 - 12
pH solution concentration	: 10%
Relative evaporation rate	: NA
Melting point	: 167 - 172°C
Freezing point	: No data available
Boiling point	: 219 - 220°C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non Flammable
Vapour pressure	: Not applicable
Relative vapour density at 20 °C	: Not applicable
Relative density	: Not applicable
Density	: Not applicable
Relative gas density	: NA
Solubility	: Water: Soluble in water
Partition coefficient n-octanol/water (Log Pow)	: Not applicable
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: Not applicable
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: Not applicable

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical Stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Direct sunlight. Air contact. Moisture.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Skin corrosion/irritation	: Causes skin irritation pH: 10.5 - 12
Serious eye damage/irritation	: Causes serious eye irritation pH: 10.5 - 12
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
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Hazardous to the aquatic environment, short-term(acute)	:	Not classified
Hazardous to the aquatic environment, long-term (chronic)	:	Not classified

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	:	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	:	Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Additional information	:	Do not re-use empty containers.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

14.1. UN number

UN-No. (ADR)	:	Not regulated
UN-No. (IMDG)	:	Not regulated
UN-No.(IATA)	:	Not regulated
UN-No.(ADN)	:	Not regulated
UN-No. (RID)	:	Not regulated

14.2. UN proper shipping name

Proper Shipping Name (ADR)	:	Not regulated
Proper Shipping Name (IMDG)	:	Not regulated
Proper Shipping Name (IATA)	:	Not regulated
Proper Shipping Name (ADN)	:	Not regulated
Proper Shipping Name (RID)	:	Not regulated
Transport document description (ADR)	:	Not regulated
Transport document description (IMDG)	:	Not regulated
Transport document description (IATA)	:	Not regulated

Transport document description (ADN)	: Not regulated
Transport document description (RID)	: Not regulated

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: Not regulated
Danger labels (ADR)	: NA

IMDG

Transport hazard class(es) (IMDG)	: Not regulated
Danger labels (IMDG)	: NA

IATA

Transport hazard class(es) (IATA)	: Not regulated
Hazard labels (IATA)	: NA

ADN

Transport hazard class(es) (ADN)	: Not regulated
Hazard labels (ADN)	: NA

RID

Transport hazard class(es) (RID)	: Not regulated
Hazard labels (RID)	: NA

14.4. Packing group

Packing group (ADR)	: Not regulated
Packing group (IMDG)	: Not regulated
Packing group (IATA)	: Not regulated
Packing group (ADN)	: Not regulated
Packing group (RID)	: Not regulated

14.5. Environmental hazards

Dangerous for the environment	: NO
Marine pollutant	: NO
Other information	: No supplementary information available

14.6. Special precautions for user

Overland transport

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

TRIS BUFFER is not on the REACH Candidate List

TRIS BUFFER is not on the REACH Annex XIV List

TRIS BUFFER is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

TRIS BUFFER is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

France	
Occupational diseases	
Code	Description
RG 67	Nasal septum lesions caused by potassium chloride dust in potash mines and their dependencies

Germany

Water hazard class (WGK) : WGK 1, Slightly hazardous to water

(Classification according to AwSV; ID No. 230)

Hazardous Incident Ordinance (12. BImSchV) Netherlands : Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.