



1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product name : Pyrosol® Buffer with pH Indicator
Product Number : BR051

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

Identified uses : Laboratory buffer pH indicator

1.3 Details of the supplier of the safety data sheet

Company : Associates of Cape Cod, Inc.
124 Bernard E St Jean Drive
East Falmouth, MA 02536
USA
Telephone : +1 888-395-2221
: +1 508-540-3444

1.4 Emergency telephone number

Emergency Phone Number : (800) 424-9300 Chemtrec® Domestic North America
: (703) 527-3887 Chemtrec® International

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Skin irritation (Category 2)
Eye irritation (Category 2A)

2.2 GHS Label elements, including precautionary statements

Pictogram



Signal Word

Warning

Hazard statement(s)

- Causes skin irritation.
- Causes serious eye irritation.

Precautionary statement(s)

- Wash skin thoroughly after handling
- Wear protective gloves/ eye protection/ face protection.
- Wear protective gloves/ eye protection/ face protection.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Specific treatment (see supplemental first aid instructions on this label).
- If skin irritation occurs: Get medical advice/ attention.
- If eye irritation persists: Get medical advice/ attention.
- Take off contaminated clothing and wash before reuse.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS – none



3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Synonyms : Tris Buffer substance
 Tris(hydroxymethyl)aminomethane Buffer substance
 Tris(hydroxymethyl)aminomethane hydrochloride

Formula : $C_4H_{11}NO_3+HCl$

Component	Classification	Concentration
Tris (hydroxymethyl) aminomethane, Tris(hydroxymethyl)aminomethane hydrochloride		
CAS-No.	77-86-1 1185-53-1	Proprietary

4. FIRST AID MEASURES

4.1 Description of 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

Never give anything by mouth to an unconscious person. 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

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Carbon oxides, nitrogen oxides (NOx), Hydrogen chloride gas

5.3 Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting if necessary.

5.4 Further information

No Data available



6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
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

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities

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

7.3 Specific end use(s)

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

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Appropriate engineering controls

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

Personal protective equipment

Eye/face protection

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.



Full contact
Material: Nitrile rubber

Splash contact
Material: Nitrile rubber
If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers.
It should not be construed as offering an approval for any specific use scenario.

Body Protection

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Do not let product enter drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

a) Appearance	Form: liquid
b) Odor	No data available
c) Odor Threshold	No data available
d) pH	7.5
e) Melting point/freezing point	No data available
f) Initial boiling point and boiling range	No data available
g) Flash point	No data available
h) Evaporation rate	No data available
i) Flammability (solid, gas)	No data available
j) Upper/lower flammability or explosive limits	No data available
k) Vapor pressure	No data available
l) Vapor density	No data available
m) Relative density	No data available
n) Water solubility	No data available
o) Partition coefficient: n-octanol/water	No data available
p) Auto-ignition temperature	No data available
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	No data available
t) Oxidizing properties	No data available



9.2 Other Safety Information

No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

No data available

10.2 Chemical stability

Stable under recommended storage conditions

10.3 Possibility of hazardous reactions

No data available

10.4 Conditions to avoid

No data available

10.5 Incompatible materials

Bases, Oxidizing agents

10.6 Hazardous decomposition products

Other decomposition products - No data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Symptoms – no information available

11.2 Information on toxicological effects

Acute toxicity

No data available Tris(hydroxymethyl)aminomethane hydrochloride

Inhalation

No data available Tris(hydroxymethyl)aminomethane hydrochloride

Dermal

No data available Tris(hydroxymethyl)aminomethane hydrochloride

Skin corrosion/irritation

No data available

Serious eye damage/eye irritation

Eyes - rabbit Tris(hydroxymethyl)aminomethane hydrochloride
Result: Mild eye irritation

Respiratory or skin sensitization

Germ cell mutagenicity

Not mutagenic in Ames Test. Tris(hydroxymethyl)aminomethane hydrochloride

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.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.



NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Specific target organ toxicity - single exposure

no data available Tris(hydroxymethyl)aminomethane hydrochloride

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available Tris(hydroxymethyl)aminomethane hydrochloride

Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Tris(hydroxymethyl)aminomethane hydrochloride

12. ECOLOGICAL INFORMATION

12.1 Toxicity: no data available

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia - > 100 mg/l - 48 h Tris(hydroxymethyl)aminomethane hydrochloride

Toxicity to algae EC50 - other microorganisms - > 1,000 mg/l - 3 h Tris(hydroxymethyl)aminomethane hydrochloride

12.2 Persistence and degradability

Biodegradability Remarks: Readily biodegradable, according to appropriate OECD test.

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available Tris(hydroxymethyl)aminomethane hydrochloride

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods



15. REGULATORY INFORMATION

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right to Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right to Know Components

	CAS-No.	Revision Date
Tris (hydroxymethyl) aminomethane	77-86-1	
Tris(hydroxymethyl)aminomethane hydrochloride	1185-53-1	

New Jersey Right To Know Components

	CAS-No.	Revision Date
Tris (hydroxymethyl) aminomethane	77-86-1	
Tris(hydroxymethyl)aminomethane hydrochloride	1185-53-1	

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

16. OTHER INFORMATION

HMIS Rating

Health hazard:	2
Flammability:	0
Physical Hazard:	0

NFPA Rating

Health hazard:	2
Fire Hazard:	0
Reactivity Hazard:	0

Further information

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Preparation Information

Associates of Cape Cod, Inc.

Version: 15

SDS *Pyrosol with indicator*