



### 1. PRODUCT AND COMPANY IDENTIFICATION

#### 1.1 Product identifiers

Product name : Glucashield®

Product Number : GB051

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

Identified uses : Laboratory buffer

#### 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 # : (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.
- IF ON SKIN: Wash with plenty of soap and water.
- 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

Formula: C<sub>4</sub>H<sub>11</sub>NO<sub>3</sub>+HCl

Component	Classification	Concentration
<b>Tris (hydroxymethyl) aminomethane</b>		
CAS-No. 77-86-1	Skin irritation (Cat 2) Eye irritation (Cat 2A)	Proprietary
EC-No. 201-064-4		
Registration number 01-2119957659-16-XXXX		
<b>Proprietary Ingredient</b>		
		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 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.



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### 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

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## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.

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. Keep in suitable, closed containers for disposal.

### 6.4 Reference to other sections

For disposal see section 13.

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## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid formation of aerosols. 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

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Exposure Guidelines

Contains no substances with occupational exposure limit values.

### 8.2 Exposure controls

#### Appropriate engineering controls

Eyewash stations and safety showers

#### 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).

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### 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

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 Color: colorless
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



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|-------------------------|-------------------|
| 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 Information on toxicological effects

#### Symptoms

No information available

#### Acute toxicity

No data available (2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride)

Inhalation: no data available (2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride)

Dermal: no data available (2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride)

No data available (2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride)

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

Eyes - rabbit (2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride)

Result: Mild eye irritation



### Respiratory or skin sensitization

No data available

### Germ cell mutagenicity

Not mutagenic in Ames Test. (2-Amino-2-(hydroxymethyl)propane-1,3-diol 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.

### Reproductive toxicity

No data available (2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride)

### Specific target organ toxicity - single exposure

No data available

### Specific target organ toxicity - repeated exposure

No data available

### Aspiration hazard

No data available (2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride)

### Additional Information

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. (2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride)

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia - > 100 mg/l - 48 h (2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride)

Toxicity to algae

EC50 - other microorganisms - > 1,000 mg/l - 3 h (2-Amino-2-(hydroxymethyl)propane-1,3-diol 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 (2-Amino-2-(hydroxymethyl)propane-1,3-diol 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	
2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	1185-53-1	



### New Jersey Right To Know Components

	CAS-No.	Revision Date
Tris (hydroxymethyl) aminomethane	77-86-1	
2-Amino-2-(hydroxymethyl)propane-1,3-diol 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: 7

SDS *Glucashield*<sup>®</sup> Buffer