



# Tricine

## Safety Data Sheet

Version 1.1  
Revision date 12/02/2011/LM-IA

### SECTION 1. Product and company identification

Chemical type : Substance  
Substance name : Tricine  
CAS No. : 5704-04-1  
Product code : RC-103  
Formula : C<sub>6</sub>H<sub>13</sub>NO<sub>5</sub>  
Synonyms : glycine, N-[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]- / N-(tri(hydroxymethyl)methyl)glycine / N-[2-hydroxy-1,1-bis(hydroxymethyl)ethyl]glycine / N-tris-(hydroxymethyl)-methyl glycine  
Company identification : G-Biosciences/ Geno Technology, Inc.  
9800 Page Avenue  
St. Louis, MO 63312-1429, USA  
Tel.1-800-628-7730  
<http://www.GBiosciences.com>  
Emergency number : Chemtrec **1-800-424-9300** (USA/Canada), **+1-703-527-3887** (Intl)

### SECTION: 2. Hazards identification

#### 2.1. Emergency Overview

Physical state : Solid  
Appearance : Powder  
Colour : White  
Odour : No data available

#### Tricine(5704-04-1)

#### 2.2. OSHA Regulatory Status

No additional information available

#### 2.3. Potential health effects

Symptoms/injuries : No data available.

#### 2.4. Potential environmental effects

No additional information available

### SECTION: 3. Composition/information on ingredients

Name	CAS No.	%
Tricine	5704-04-1	100

#### 4.1. First aid procedures

First-aid measures general : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.  
First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.  
First-aid measures after skin contact : Rinse with water. Soap may be used. Take victim to a doctor if irritation persists.  
First-aid measures after eye contact : Rinse immediately with plenty of water. Take victim to an ophthalmologist if irritation persists.  
First-aid measures after ingestion : Rinse mouth with water. Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Call Poison Information Centre ([www.big.be/antigif.htm](http://www.big.be/antigif.htm)).

#### 4.2. Note to physicians

No additional information available

### SECTION: 5. Firefighting measures

#### 5.1. Flammable properties

Fire hazard : DIRECT FIRE HAZARD. No data available on direct fire hazard. INDIRECT FIRE HAZARD. No data available on indirect fire hazard.  
Explosion hazard : DIRECT EXPLOSION HAZARD. No data available on direct explosion hazard. INDIRECT EXPLOSION HAZARD. No data available on indirect explosion hazard.  
Reactivity : On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

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### 5.1. Extinguishing media

Suitable extinguishing media : Water spray. Polyvalent foam. ABC powder. Carbon dioxide.

### 5.3. Protection for firefighters

Firefighting instructions : Dilute toxic gases with water spray.

Protection during firefighting : Heat/fire exposure: compressed air/oxygen apparatus. Heat/fire exposure: gas-tight suit.

## SECTION: 6. Accidental release measures

### 6.1. Personal precautions

#### 6.1.1. For non-emergency personnel

Protective equipment : Gloves. Protective clothing. Dust cloud production: compressed air/oxygen apparatus.

Emergency procedures : Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames. Wash contaminated clothes.

#### 6.1.2. For emergency responders

No additional information available

### 6.2. Environmental precautions

No additional information available

### 6.3. Methods for containment

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray.

### 6.4. Methods for clean up

Methods for cleaning up : Prevent dust cloud formation. Scoop solid spill into closing containers. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

### 6.5. Other information

No additional information available

### 6.6. Spill or leak statements by type of chemical

No additional information available

## SECTION: 7. Handling and storage

### 7.1. Handling

Precautions for safe handling : Comply with the legal requirements. Clean contaminated clothing. Avoid raising dust. Keep away from naked flames/heat. Reduce/avoid exposure and/or contact. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

### 7.2. Storage

Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.

Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: oxidizing agents.

Storage area : Store in a cool area. Store in a dry area. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: plastics.

## SECTION: 8. Exposure controls/personal protection

### 8.1. Exposure guidelines

No additional information available

### 8.2. Engineering controls

No additional information available

### 8.3. Personal protective equipment (PPE)

Materials for protective clothing : GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: No data available. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: No data available.

Hand protection : Gloves.

Eye protection : Safety glasses. In case of dust production: protective goggles.

Skin and body protection : Protective clothing.

Respiratory protection : Dust formation: dust mask.

## SECTION: 9. Physical and chemical properties

Physical state : Solid

Appearance : Powder.

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Molecular mass	: 179.17 g/mol
Colour	: White.
Odour	: No data available.
Odour threshold	: No data available
pH	: 4 - 6
pH solution	: 18 %
Melting point	: 187 °C
Solidification point	: No data available
Boiling point	: Not applicable
Flash point	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Soluble in water. Water: 18 g/100ml
Log Pow	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: 187 °C
Viscosity	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Other properties	: Substance has acid reaction.

### SECTION: 10. Stability and reactivity

#### 10.1. Chemical stability

On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide).

No data available.

#### 10.2. Conditions to avoid

No additional information available

#### 10.3. Incompatible materials

No additional information available

#### 10.4. Hazardous decomposition products

No additional information available

#### 10.5. Possibility of hazardous reactions

No additional information available

### SECTION: 11. Toxicological information

#### Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified pH: 4 - 6
Serious eye damage/irritation	: Not classified pH: 4 - 6
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

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### SECTION: 12. Ecological information

#### 12.1 Ecotoxicity

Ecology - air : Not dangerous for the ozone layer (Council Regulation (EC) no 1005/2009).

#### 12.2. 12.2. Persistence and degradability

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Persistence and degradability	Biodegradability in water: no data available.
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#### 12.3. Bioaccumulation/Accumulation

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Bioaccumulative potential	No bioaccumulation data available.
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#### 12.4. Mobility in environmental media

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION: 13. Disposal considerations

#### 13.1. Waste treatment methods

Waste disposal recommendations : Dissolve or mix with a combustible solvent. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber.

### SECTION: 14. Transport information

#### 14.1. Basic shipping description

No additional information available

#### 14.2 Additional information

Other information : No supplementary information available.

State during transport (ADR-RID) : No data available.

#### Overland transport

No additional information available

#### Transport by sea

No additional information available

#### Air transport

No additional information available

### SECTION: 15. Regulatory information

#### 15.1. US Federal regulations

No additional information available

#### 15.2. International regulations

##### CANADA

No additional information available

##### EU-Regulations

No additional information available

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

Not classified

#### Classification according to Directive 67/548/EEC or 1999/45/EC

Not classified

#### 15.2.2. National regulations

No additional information available

#### 15.3. US State regulations

No additional information available

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### SECTION: 16. Other information

NFPA health hazard

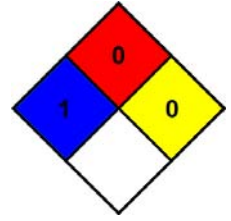
: 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.

NFPA fire hazard

: 0 - Materials that will not burn.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



#### HMIS III Rating

No additional information available

SDS US (ANSI) GBiosciences