



# PIPES, Sod Salt (Piperazine-N,N'-Bis[2-Etahnnesulfonic acid])

## Safety Data Sheet

Version 1.1

Revision date 01/09/2012

### SECTION 1. Product and company identification

Chemical type	: Substance
Substance name	: PIPES, Sod Salt (Piperazine-N,N'-Bis[2-Etahnnesulfonic acid])
CAS No.	: 5625-37-6
Product code	: RC-080
Formula	: C8H18N2O6S2
Synonyms	: 1,4-piperazinebis(ethanesulfonic acid) / 2,2'-(piperaine-1,4-diyl)bis(ethanesulphonic)acid / piperazine-1,4-bis(2-ethanesulfonic acid) / piperazine-N,N'-bis(2-ethanesulfonic acid) / PIPES (=1,4-piperazinediethanesulfonic acid)
Company identification	: G-Biosciences/ Geno Technology, Inc. 9800 Page Avenue St. Louis, MO 63312-1429, USA Tel.1-800-628-7730 <a href="http://www.GBiosciences.com">http://www.GBiosciences.com</a>
Emergency number	: Chemtrec <b>1-800-424-9300</b> (USA/Canada), <b>+1-703-527-3887</b> (Intl)

### SECTION: 2. Hazards identification

#### 2.1. Emergency Overview

Physical state	: Solid
Appearance	: Crystalline solid. Powder
Colour	: Colourless to white
Odour	: No data available

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#### 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.	%
PIPES, Sod Salt (Piperazine-N,N'-Bis[2-Etahnnesulfonic acid])	5625-37-6	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 with water. Take victim to an ophthalmologist if irritation persists.
First-aid measures after ingestion	: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Call Poison Information Centre ( <a href="http://www.big.be/antigif.htm">www.big.be/antigif.htm</a> ). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital.

#### 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.

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

### 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.

## 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 : Stop dust cloud by humidifying. 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 dry area. Keep container in a well-ventilated place. 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 production: dust mask with filter type P1.

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### SECTION: 9. Physical and chemical properties

Physical state	: Solid
Appearance	: Crystalline solid. Powder.
Molecular mass	: 302.37 g/mol
Colour	: Colourless to white.
Odour	: No data available.
Odour threshold	: No data available
pH	: 2.5 - 3.0
pH solution	: 1 %
Melting point	: > 300 °C
Solidification point	: No data available
Boiling point	: No data available
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	: Moderately soluble in water. Water: 1 - 10 g/100ml
Log Pow	: -3.61 (est.)
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
VOC content	: 0 %
Other properties	: Substance has acid reaction.

### SECTION: 10. Stability and reactivity

#### 10.1. Chemical stability

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

Stable under normal conditions.

#### 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: 2.5 - 3.0
Serious eye damage/irritation	: Not classified pH: 2.5 - 3.0
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

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Aspiration hazard : Not classified

### 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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Log Pow	-3.61 (est.)
Bioaccumulative potential	Bioaccumulation: not applicable.

#### 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 : Remove to an authorized waste treatment plant.

### 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

#### HMIS III Rating

No additional information available

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