

# Glycine Buffer Solution, 100 mM, pH 2-2.5: sc-295018



The Power to Question

## MATERIAL SAFETY DATA SHEET

### SECTION 1 - CHEMICAL PRODUCT & COMPANY IDENTIFICATION

PRODUCT **Glycine Buffer Solution, 100 mM,**  
NAME: **pH 2-2.5**

CATALOG  
NUMBER: **sc-295018**

SUPPLIER:  
Santa Cruz Biotechnology, Inc.  
2145 Delaware Avenue  
Santa Cruz, California 95060  
800.457.3801 or 831.457.3800

EMERGENCY:  
ChemWatch  
Within the US & Canada: 877-715-9305  
Outside the US & Canada: +800 2436 2255  
(1-800-CHEMCALL) or call +613 9573 3112

### SUBSTANCE IDENTIFICATION

SUBSTANCE: Glycine/Hydrochloric acid  
Buffer, pH 2-2.5  $\pm$  0.1

### SECTION 2 - COMPOSITION AND INFORMATION ON INGREDIENTS

Component	CAS No.	EINECS No.	Wt Percent
Glycine	56-40-6	200-272-2	0.5-3.0
Hydrochloric acid	7647-01-0	231-595-7	*
Water	7732-18-5	231-791-2	Balance
*Hydrochloric acid to adjust pH to 2-2.5 $\pm$ 0.1			

### SECTION 3 - HAZARD IDENTIFICATION

#### EMERGENCY OVERVIEW

Appearance: Clear colorless solution

Major Health Hazards: Possible eye, skin, respiratory and gastrointestinal tract irritant.

Physical Hazards: Corrosive to iron, aluminum and other active metals. Flammable hydrogen gas will be generated.

#### Health Effects

##### Route of Entry      Potential Health Effects and Symptoms of Exposure

Skin: Prolonged contact will cause moderate skin irritation.

Eyes: Will cause moderate to severe eye irritation.

Ingestion: Ingestion of large quantities will cause slight irritation of gastrointestinal tract.

Inhalation: Repeated or prolonged inhalation of aerosols of this solution will cause moderate mucous membrane and respiratory tract irritation, with coughing and difficulty with breathing.

Target organs: Hydrogen chloride - Lungs

Medical Conditions: None found.

Aggravated by  
Exposure:

### SECTION 4 - FIRST AID

Ingestion: Do Not Induce Vomiting. If victim is conscious and alert, give plenty of water. If unconscious, give nothing by mouth and seek medical attention for victim.

Eyes: Flush eyes with plenty of water for at least 15 minutes; occasionally lifting upper and lower lids. Seek medical attention immediately.

Skin: Wash exposed skin with soap and water while removing contaminated clothing and shoes. Seek medical attention if irritation develops or persists. Launder contaminated clothing before wearing.

Inhalation: Remove exposed person to fresh air immediately. Get medical attention. If breathing is difficult, administer oxygen. If victim is not breathing, administer artificial respiration.

## SECTION 5 - FIRE FIGHTING MEASURES

### Fire & Explosion Hazards:

Fire & Explosion Hazards:	Not considered to be a fire or explosion hazard.
Extinguishing Media:	Use media suitable for extinguishing surrounding fire.
Flash point:	None

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

Spills and Leaks:	Apply acid neutralizing media to the spill, according to the instructions. See Section 8 for personal protective equipment. Dispose of in a manner consistent with federal, state, and local regulations.
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## SECTION 7- HANDLING AND STORAGE

Store in a cool, dry location, away from sources of heat. Wash thoroughly after handling.

## SECTION 8 - PERSONAL PROTECTION AND EXPOSURE CONTROL

Ventilation:	Good general ventilation should be sufficient to control airborne contamination. Mechanical exhaust must be used if needed to maintain compliance with exposure limits for hydrogen chloride. Use good laboratory techniques to avoid aerosol formation.
Personal Protection:	Wear safety glasses or goggles and appropriate protective clothing and gloves to prevent skin contact under conditions of use.
Respirator Use:	Respiratory protection should not be required under normal conditions of use. If respiratory protection is deemed necessary, follow OSHA respirator regulations in 29 CFR 1910.134, using a NIOSH-approved acidic vapor respirator.

## SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Clear colorless solution.
Specific Gravity	1.00 – 1.01
Odor	Slight acrid odor characteristic of hydrochloric acid
Odor threshold	7 mg/m <sup>3</sup> (5 ppm)
Water solubility:	Soluble

pH	2.4 – 2.6
Melting Point	Not available
Boiling Point	Not available
Vapor Pressure	Not available
Vapor Density (Air equals 1.00)	Hydrogen chloride = 1.26
Volatility	>97 weight percent
Evaporation Rate	Not available
Coefficient of water/oil distribution:	Not applicable

## SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:	Stable
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Temperatures above room temperature and incompatible substances.
Incompatible with:	Strongly basic solutions and active metals.
Hazardous Decomposition Products:	Hydrogen chloride; oxides and other compounds of carbon, and nitrogen

## SECTION 11 - TOXICOLOGICAL INFORMATION

Carcinogenicity:	Glycine and hydrochloric acid are not listed as carcinogenic by IARC, NIOSH, NTP, or OSHA. ACGIH lists sodium azide as: <b>A4</b> - Not Classifiable as a Human Carcinogen.
Acute Effects:	Moderate eye, skin, respiratory and gastrointestinal tract irritation.
Chronic Effects:	Prolonged or repeated skin contact may cause dermatitis. Repeated exposure may cause erosion of teeth.

### Exposure Limits:

Ingredient	OSHA PEL	ACGIH TLV	NIOSH REL
Glycine	None established	None established	None established
Hydro-chloric acid	5 ppm Ceiling	5 ppm Ceiling	None established

### Toxicological Data

No toxicological data is available for this product as an entity.

Selected RTECS data for components:

Glycine (100%)	MB7600000
LD <sub>50</sub> , oral, rat	7,930 mg/kg
Hydrochloric acid, (100%)	MW4025000
LD <sub>50</sub> , oral, rabbit	900 mg/kg
LC <sub>50</sub> , inhalation, mouse	1,108 ppm/1H

## SECTION 12 - ECOLOGICAL INFORMATION

No data is available on the Ecotoxicity or Environmental Fate of this product.

## SECTION 13- DISPOSAL INFORMATION

This product as an entity is not regulated as a hazardous waste by the US Environmental Protection Agency. Wastes containing this product should be disposed of in a manner consistent with federal, state and local regulations.

## SECTION 14 - TRANSPORTATION INFORMATION

This product is not currently regulated as a hazardous material or dangerous goods by the United States Department of Transportation, or the International Air Transport Association/International Civil Aviation Organization.

## SECTION 15 - REGULATORY INFORMATION

All components of this solution are not listed on the Toxic Substances Control Act (TSCA) Chemical Inventory. See regulations in 40 CFR 700 for details.

California No significant Risk Level: None of the chemicals in this product are known to Millipore Corporation to be listed.

European Labeling in Accordance with EC Directives:

Hazard Symbols: None applicable

Risk Phrases: None applicable

Safety Phrases: None applicable

Canada: This product has a WHMIS classification of **E**.

Japan: Sodium Azide is listed in the Poisonous and Deleterious Substance Control Act as a poisonous substance.

## SECTION 16- ADDITIONAL INFORMATION

*The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.*

5/24/2010