Material Safety Data Sheet

Buffer Solution pH 12

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Carolina Biological Supply Company
2700 York Rd | Burlington, NC 27215 • to order: 800.334.5551 • for support: 800.227.1150

CAROLINA
www.carolina.com

Section 1 - Product Description

Product Name: Buffer Solution pH 12
Product Code(s): 84-9717, C70418, C70098, C71161
Size: 7 mL, 120 mL, 500 mL
Chemical Name: See Section 3
CAS Number: See Section 3
Formula: See Section 3
Synonyms: None known
Distributor: Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215
Chemical Information: 800-227-1150 (8am-5pm (ET) M-F) **Chemtrec** 800-424-9300 (Transportation Spill Response 24 hours)

Section 2 - Hazard Identification

Emergency Overview: CAUTION - Irritating to eyes and skin.
Potential Health Effects:
Eyes: May cause irritation.
Skin: May cause irritation to skin.
Ingestion: May cause gastrointestinal discomfort.
Inhalation: May cause irritation to respiratory tract.

Section 3 - Composition / Information on Ingredients

Principal Hazardous Components: Boric Acid (CAS# 10043-35-3) 0.5%; Sodium Hydroxide (CAS# 1310-73-2) 0.4%; Potassium Chloride (CAS # 7447-40-7) 0.4%
TLV units: ACGIH-TLV (Sodium Hydroxide) 2 mg/m3 (Ceiling)
PEL units: OSHA-PEL (Sodium Hydroxide) 2 mg/m3 (TWA)

Section 4 - First Aid Measures

Emergency and First Aid Procedures:
Eyes - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Skin - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water.
Ingestion - If swallowed, rinse mouth with water (only if the person is conscious).
Inhalation - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

Section 5 - Firefighting Procedures

Flash Point (Method Used): N/A

NFPA Rating:
Health: 1
Fire: 0
Reactivity: 0
Extinguisher Media: Use dry chemical, CO2 or appropriate foam.
Flammable Limits in Air % by Volume: N/A
Autoignition Temperature: N/A
Special Firefighting Procedures: Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: N/A

Section 6 - Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled: Ventilate area of spill. Eliminate all sources of ignition. Remove all non-essential personnel from area. Clean-up personnel should wear proper protective equipment and clothing. Absorb material with suitable absorbent and containerize for disposal.

Section 7 - Special Precautions

Precautions to Take in Handling or Storing: Do not ingest or take internally.
Avoid contact with skin and eyes. Keep container tightly closed in a cool, well-ventilated place.
Suitable for any general chemical storage.

Section 8 - Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. A NIOSH/MSHA chemical cartridge respirator should be worn if PEL or TLV is exceeded.
Ventilation:
Local Exhaust: No
Mechanical(General): Yes
Special: No
Other: No
Protective Gloves: Natural rubber, Neoprene, PVC or equivalent.
Eye Protection: Splash proof chemical safety goggles should be worn.
Other Protective Clothing or Equipment: Lab coat, apron, eye wash, safety shower.

Section 9 - Physical Data

Molecular Weight: N/A
Boiling Point: Approx. 100 °C (212°F)
Vapor Density(Air=1): 0.7
Percent Volatile by Volume: 0%
Solubility in Water: Soluble
Melting Point: Approx. 0 °C (32°F)
Vapor Pressure: 14 mmHg at 20 °C
Specific Gravity (H2O=1): 1.0
Evaporation Rate (BuAc=1): N/A
Appearance and Odor: Colorless, odorless solution.

Section 10 - Reactivity Data

Stability: Stable
Conditions to Avoid: None Known
Incompatibility (Materials to Avoid): Water-reactive Material, Acids,
Hazardous Decomposition Products: N/A
Hazardous Polymerization: Will not occur

Section 11 - Toxicity Data

Toxicity Data: ORL LD50 - Rat: 2500 mg/kg (Boric Acid)
IP LD50 - Mouse: 40 mg/kg (Sodium Hydroxide)
ORL LD50 - Rat: 2600 mg/kg (Potassium Chloride)

Effects of Overexposure:
Acute: See Section 2
Chronic: Mutation data cited. Reproductive data cited. Not listed as a carcinogen by IARC, NTP or OSHA.
Conditions Aggravated by Overexposure: N/A
Target Organs: N/A
Primary Route(s) of Entry: Inhalation and ingestion.

Section 12 - Ecological Data

EPA Waste Numbers: N/A

Section 13 - Disposal Information

Waste Disposal Methods: Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.

Section 14 - Transport Information

DOT Proper Shipping Name: Not Regulated for Transport

Section 15 - Regulatory Information

EPA TSCA Status: On TSCA Inventory
Hazard Category for SARA Section 311/312 Reporting: Acute

Name List:
Sodium Hydroxide - No
Boric Acid - No
Potassium Chloride - No

Chemical Category:

CERCLA Section 103 RQ(lb.): Sodium Hydroxide - 1000 lbs (454 kg)
Boric Acid - No
Potassium Chloride - No
RCRA Section 261.33: Sodium Hydroxide - No
Boric Acid - No
Potassium Chloride - No

Section 16 - Additional Information

The information provided in this Material Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the Material Safety Data Sheet. Any employer must carefully assess the applicability of any information contained herein in regards to the particular use to which the employer puts the material.

Glossary

ACGIH	American Conference of Governmental Industrial Hygienists
CAS Number	Chemical Services Abstract Number
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
DOT	U.S. Department of Transportation
IARC	International Agency of Research on Cancer
N/A	Not Available
NTP	National Toxicology Program
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
ppm	Parts per million
RCRA	Resource Conservation and Recovery Act

SARA	Superfund Amendments and Reauthorization Act
TLV	Threshold Limit Value
TSCA	Toxic Substances Control Act