

Material Safety Data Sheet



Buffer Solution, pH 9

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Section 1 – Product Description

Product Name: Buffer Solution pH 9

Product Code(s): 84-0679, 84-0691

Size: 10mL, 100mL

Chemical Name: See Section 3

CAS Number: See Section 3

Formula: See Section 3

Synonyms: See Section 3

Distributor: Biozoa Biological Supply Company. Seoul, Geumcheon-gu, Doosan-ro 70, B-1008(Hyundai-Center)

Chemical Information: 02-862-1372 (9am-5pm (ET) M-F)

Section 2 – Hazard Identification

Emergency Overview: Irritating to eyes and skin.

Potential Health Effects:

Eyes: May cause irritation

Ingestion: May cause gastrointestinal discomfort.

Skin: May Causes irritation to skin.

Inhalation: May Causes irritation to respiratory tract.

Section 3 – Composition / Information on Ingredients

Principle Hazardous Components: Sodium Hydroxide (CAS# 1310-73-2) 0.1%; Boric Acid (CAS# 10043-35-3) 0.3%; Potassium Chloride (CAS# 7447-40-7) 0.4%

TLV units: ACGIH-TLV (Sodium Hydroxide) 2 mg/m³ (Ceiling)

PEL units: OSH-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, do not induce vomiting; seek medical advice immediately and show this container or label. 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 media suitable to extinguish surrounding fire.

Flammable Limits in Air % by Volume: N/A

Autoignition Temperature: N/A

Special Firefighting Procedures: Firefighters should wear full protective equipment and NOISH approved self-contained breathing apparatus.

Unusual Fire and Explosion Hazard: Fire or excessive heat may produce hazardous decomposition products.

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 equipment and clothing. Absorb material with suitable absorbent and containerize for disposal

Section 7 – Special Precautions

Precaution to Take in Handling or Storing: Avoid contact with skin and eyes. Keep container tightly closed in a cool, well-ventilated place.

Section 8 – Protection Information

Respiratory Protection (Specify Type): None needed under normal conditions of use with adequate ventilation. ANIOSH/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, eyes 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 25°C

Specific Gravity (H₂O=1): Approx. 1.0

Evaporation Rate (BuAc=1): >1

Appearance and Odor: Colorless, odorless solution.

Section 10 - Reactivity Data

Stability: Stable

Conditions to Avoid: Heat and sources of ignition

Incompatibility (Material to Avoid): Acids, Oxidizers, Alkalis

Hazardous Decomposition Product: Chlorine Gas,

Hazardous Polymerization: Will not occur

Section 11 – Toxicity Data

Toxicity Data: ORL LD50 - Rat: 2500 mg/kg (Boric Acid)

ORL LD50 - Rat: 2600 mg/kg (Potassium Chloride)

IP LD50 - Mouse: 40mg/kg (Sodium Hydroxide)

Effects of Overexposure:

Acute: See Section 2

Chronic: Mutation 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: N/A

Section 12- Ecological Date

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 - 1000 lbs (454 kg)
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 - 1000 lbs (454 kg)

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 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