

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : Buffer Solution pH 10.00, Carbonate
 Product code : LC12455

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : For laboratory and manufacturing use only
 Recommended use : Laboratory chemicals
 Restrictions on use : Not for food, drug or household use

1.3. Details of the supplier of the safety data sheet

LabChem Inc
 Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
 Zelienople, PA 16063 - USA
 T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 or 011-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Not classified

2.2. Label elements

Not classified as a hazardous chemical.

2.3. Other hazards

Other hazards not contributing to the classification : None under normal conditions.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Water	(CAS No) 7732-18-5	98.9	Not classified
Sodium Carbonate, Anhydrous	(CAS No) 497-19-8	0.6	Skin Irrit. 2, H315 Eye Irrit. 2A, H319
Sodium Bicarbonate	(CAS No) 144-55-8	0.42	Eye Irrit. 2B, H320
Sodium Azide	(CAS No) 26628-22-8	0.05	Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Sodium Hydroxide	(CAS No) 1310-73-2	0.03	Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Eye Dam. 1, H318 Aquatic Acute 3, H402

Full text of hazard classes and H-statements : see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
 First-aid measures after inhalation : Allow victim to breathe fresh air. Allow the victim to rest.

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First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

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

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Safety glasses.
Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use.
Incompatible products : Strong acids.
Incompatible materials : Heat sources. Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sodium Bicarbonate (144-55-8)

Not applicable

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Sodium Carbonate, Anhydrous (497-19-8)

Not applicable

Water (7732-18-5)

Not applicable

Sodium Azide (26628-22-8)

ACGIH	ACGIH Ceiling (mg/m ³)	0.29 mg/m ³ (Sodium azide, as sodium azide; USA; Momentary value; TLV - Adopted Value)
ACGIH	ACGIH Ceiling (ppm)	0.11 ppm (Sodium azide, as hydrazoic acid vapor; USA; Momentary value; TLV - Adopted Value)
NIOSH	NIOSH REL (ceiling) (mg/m ³)	0.3 mg/m ³
NIOSH	NIOSH REL (ceiling) (ppm)	0.1 ppm

Sodium Hydroxide (1310-73-2)

ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³ (Sodium hydroxide; USA; Momentary value; TLV - Adopted Value)
OSHA	OSHA PEL (TWA) (mg/m ³)	2 mg/m ³
IDLH	US IDLH (mg/m ³)	10 mg/m ³
NIOSH	NIOSH REL (ceiling) (mg/m ³)	2 mg/m ³

8.2. Exposure controls

Appropriate engineering controls

: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation.

Personal protective equipment

: Safety glasses.



Hand protection

: Wear protective gloves.

Eye protection

: Chemical goggles or safety glasses.

Respiratory protection

: Respiratory protection not required in normal conditions.

Other information

: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Colorless
Odor	: None.
Odor threshold	: No data available
pH	: 10
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Non flammable.
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Specific gravity / density	: 1 g/ml
Solubility	: Soluble in water.
Log Pow	: No data available
Auto-ignition temperature	: No data available

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Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reacts exothermically with (some) acids: release of (carbon dioxide).

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids.

10.6. Hazardous decomposition products

Nitrogen oxides. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Skin and eye contact

Acute toxicity : Not classified

Sodium Bicarbonate (144-55-8)	
LD50 oral rat	4220 mg/kg
ATE US (oral)	4220.000 mg/kg body weight
Sodium Carbonate, Anhydrous (497-19-8)	
LD50 oral rat	4090 mg/kg
ATE US (oral)	4090.000 mg/kg body weight
Water (7732-18-5)	
LD50 oral rat	≥ 90000 mg/kg
ATE US (oral)	90000.000 mg/kg body weight
Sodium Azide (26628-22-8)	
LD50 oral rat	27 mg/kg
LD50 dermal rabbit	20 mg/kg
ATE US (oral)	27.000 mg/kg body weight
ATE US (dermal)	20.000 mg/kg body weight
Sodium Hydroxide (1310-73-2)	
ATE US (dermal)	1350.000 mg/kg body weight

Skin corrosion/irritation : Not classified

pH: 10

Serious eye damage/irritation : Not classified

pH: 10

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

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Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Sodium Bicarbonate (144-55-8)	
LC50 fish 1	8250 - 9000 mg/l
EC50 Daphnia 1	2350 mg/l
Sodium Carbonate, Anhydrous (497-19-8)	
LC50 fish 1	300 mg/l
EC50 Daphnia 1	265 mg/l
LC50 fish 2	740 mg/l
Sodium Azide (26628-22-8)	
LC50 fish 1	0.8 mg/l (LC50; 96 h)
EC50 Daphnia 1	4.2 mg/l (EC50; 48 h)
Sodium Hydroxide (1310-73-2)	
LC50 fish 1	45.4 mg/l (LC50; Other; 96 h; Salmo gairdneri; Static system; Fresh water; Experimental value)

12.2. Persistence and degradability

Buffer Solution pH 10.00, Carbonate	
Persistence and degradability	Not established.
Sodium Bicarbonate (144-55-8)	
Persistence and degradability	Not established.
Sodium Carbonate, Anhydrous (497-19-8)	
Persistence and degradability	Not established.
Water (7732-18-5)	
Persistence and degradability	Not established.
Sodium Azide (26628-22-8)	
Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
Sodium Hydroxide (1310-73-2)	
Persistence and degradability	Biodegradability: not applicable. No test data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

12.3. Bioaccumulative potential

Buffer Solution pH 10.00, Carbonate	
Bioaccumulative potential	Not established.
Sodium Bicarbonate (144-55-8)	
Bioaccumulative potential	Not established.

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Sodium Carbonate, Anhydrous (497-19-8)	
Bioaccumulative potential	Not established.
Water (7732-18-5)	
Bioaccumulative potential	Not established.
Sodium Azide (26628-22-8)	
Bioaccumulative potential	Not bioaccumulative.
Sodium Hydroxide (1310-73-2)	
Bioaccumulative potential	No bioaccumulation data available.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known effects from this product.
GWPmix comment : No known effects from this product.
Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

Sodium Azide	CAS No 26628-22-8	0.05%
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Sodium Bicarbonate (144-55-8)	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard
Sodium Azide (26628-22-8)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb
Sodium Hydroxide (1310-73-2)	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard

15.2. International regulations

CANADA

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WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

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Sodium Bicarbonate (144-55-8)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Sodium Carbonate, Anhydrous (497-19-8)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Water (7732-18-5)	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria
Sodium Azide (26628-22-8)	
Listed on the Canadian DSL (Domestic Substances List)	
Sodium Hydroxide (1310-73-2)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class E - Corrosive Material

EU-Regulations

No additional information available

National regulations

Sodium Bicarbonate (144-55-8)	
Not listed on the Canadian IDL (Ingredient Disclosure List)	
Sodium Carbonate, Anhydrous (497-19-8)	
Listed on the Canadian IDL (Ingredient Disclosure List)	
Sodium Azide (26628-22-8)	
Listed on the Canadian IDL (Ingredient Disclosure List)	

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

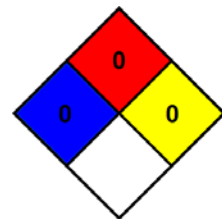
SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

H300	Fatal if swallowed
H310	Fatal in contact with skin
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H320	Causes eye irritation
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA health hazard : 0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.
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.



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HMIS III Rating

Health	: 0 Minimal Hazard - No significant risk to health
Flammability	: 0 Minimal Hazard - Materials that will not burn
Physical	: 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.
Personal protection	: A A - Safety glasses

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