

SECTION 1: Identification

1.1. Identification

Product form : Mixtures
 Product name : Phosphate Buffer pH 6.2-6.5, for Chlorine
 Product code : LC18540
 Synonyms : Phosphate Buffer for Chlorine / Phosphate Buffer for Chlorine Dioxide

1.2. Recommended use and restrictions on use

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. Supplier

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

Hazardous to the aquatic environment - Acute H402 Harmful to aquatic life
 Hazard Category 3
 Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

Not classified as a hazardous chemical.
 Other hazards not contributing to the classification : None.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Water	(CAS-No.) 7732-18-5	92.918	Not classified
Potassium Phosphate, Monobasic	(CAS-No.) 7778-77-0	4.6	Not classified
Sodium Phosphate, Dibasic, Anhydrous	(CAS-No.) 7558-79-4	2.4	Eye Irrit. 2B, H320
EDTA, Disodium, Dihydrate	(CAS-No.) 6381-92-6	0.08	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335
Mercuric Chloride	(CAS-No.) 7487-94-7	0.002	Acute Tox. 1 (Oral), H300 Acute Tox. 1 (Dermal), H310 Carc. 2, H351 Repr. 2, H361 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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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. |
| 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 persists. |
| First-aid measures after ingestion | : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. |

4.2. Most important symptoms and effects (acute and delayed)

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| Symptoms/effects | : Not expected to present a significant hazard under anticipated conditions of normal use. |
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4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

5.2. Specific hazards arising from the chemical

No additional information available

5.3. Special protective equipment and precautions for fire-fighters

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|--------------------------------|---|
| 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

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

6.1.2. For emergency responders

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|----------------------|--|
| 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

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| 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. |
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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

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| 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. |
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7.2. Conditions for safe storage, including any incompatibilities

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

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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Water (7732-18-5)		
Not applicable		
Sodium Phosphate, Dibasic, Anhydrous (7558-79-4)		
Not applicable		
EDTA, Disodium, Dihydrate (6381-92-6)		
Not applicable		
Potassium Phosphate, Monobasic (7778-77-0)		
Not applicable		
Mercuric Chloride (7487-94-7)		
ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m ³ (Mercury, Inorganic forms, as Hg; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
OSHA	OSHA PEL (TWA) (mg/m ³)	0.1 mg/m ³
IDLH	US IDLH (mg/m ³)	10 mg/m ³
NIOSH	NIOSH REL (TWA) (mg/m ³)	0.05 mg/m ³
NIOSH	NIOSH REL (ceiling) (mg/m ³)	0.1 mg/m ³

8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. 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	: 6.2 - 6.5

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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	: Miscible with water.
Log Pow	: No data available
Auto-ignition temperature	: No data available
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

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

mercury. Phosphorus oxides. Nitrogen oxides.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure	: Skin and eye contact
Acute toxicity	: Not classified

Water (7732-18-5)	
LD50 oral rat	≥ 90000 mg/kg
ATE US (oral)	90000 mg/kg body weight
Sodium Phosphate, Dibasic, Anhydrous (7558-79-4)	
LD50 oral rat	5950 mg/kg
LD50 dermal rabbit	≥ 7940 mg/kg
ATE US (oral)	5950 mg/kg body weight
ATE US (dermal)	7940 mg/kg body weight
EDTA, Disodium, Dihydrate (6381-92-6)	
LD50 oral rat	2000 mg/kg

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EDTA, Disodium, Dihydrate (6381-92-6)	
ATE US (oral)	2000 mg/kg body weight
Potassium Phosphate, Monobasic (7778-77-0)	
LD50 dermal rabbit	4640 mg/kg
ATE US (dermal)	4640 mg/kg body weight
Mercuric Chloride (7487-94-7)	
LD50 oral rat	1 mg/kg (Rat)
LD50 dermal rat	41 mg/kg (Rat)
ATE US (oral)	1 mg/kg body weight
ATE US (dermal)	41 mg/kg body weight
Skin corrosion/irritation	: Not classified pH: 6.2 - 6.5
Serious eye damage/irritation	: Not classified pH: 6.2 - 6.5
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

Mercuric Chloride (7487-94-7)	
IARC group	2B - Possibly carcinogenic to humans
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

Phosphate Buffer pH 6.2-6.5, for Chlorine	
LC50 fish 1	99.92 mg/l
Sodium Phosphate, Dibasic, Anhydrous (7558-79-4)	
LC50 fish 1	≥ 100 mg/l
EC50 Daphnia 1	≥ 100 mg/l
EDTA, Disodium, Dihydrate (6381-92-6)	
LC50 fish 1	≥ 500 mg/l
Mercuric Chloride (7487-94-7)	
LC50 fish 1	0.03 mg/l (LC50; 96 h)
EC50 Daphnia 2	0.003 mg/l (EC50; 48 h)
Threshold limit algae 2	0.07 mg/l (EC0)

12.2. Persistence and degradability

Phosphate Buffer pH 6.2-6.5, for Chlorine	
Persistence and degradability	Not established.
Water (7732-18-5)	
Persistence and degradability	Not established.
Sodium Phosphate, Dibasic, Anhydrous (7558-79-4)	
Persistence and degradability	Not established.

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EDTA, Disodium, Dihydrate (6381-92-6)	
Persistence and degradability	Not established.
Potassium Phosphate, Monobasic (7778-77-0)	
Persistence and degradability	Not established.
Mercuric Chloride (7487-94-7)	
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

Phosphate Buffer pH 6.2-6.5, for Chlorine	
Bioaccumulative potential	Not established.
Water (7732-18-5)	
Bioaccumulative potential	Not established.
Sodium Phosphate, Dibasic, Anhydrous (7558-79-4)	
Bioaccumulative potential	Not established.
EDTA, Disodium, Dihydrate (6381-92-6)	
Bioaccumulative potential	Not established.
Potassium Phosphate, Monobasic (7778-77-0)	
Bioaccumulative potential	Not established.
Mercuric Chloride (7487-94-7)	
BCF fish 1	10000 (BCF)
BCF fish 2	500 - 4620 (BCF)
BCF other aquatic organisms 1	10000 (BCF)
Log Pow	0.1 - 0.22 (Calculated)
Bioaccumulative potential	Potential for bioaccumulation ($500 \leq \text{BCF} \leq 5000$).

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal 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.

Mercuric Chloride	CAS-No. 7487-94-7	0.002%
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Sodium Phosphate, Dibasic, Anhydrous (7558-79-4)

RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb
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Mercuric Chloride (7487-94-7)

Listed on the United States SARA Section 302

RQ (Reportable quantity, section 304 of EPA's List of Lists)	500 lb
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard

15.2. International regulations

CANADA

No additional information available

Sodium Phosphate, Dibasic, Anhydrous (7558-79-4)

Listed on the Canadian DSL (Domestic Substances List)

EDTA, Disodium, Dihydrate (6381-92-6)

Listed on the Canadian DSL (Domestic Substances List)

Mercuric Chloride (7487-94-7)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Sodium Phosphate, Dibasic, Anhydrous (7558-79-4)

Not listed on the Canadian IDL (Ingredient Disclosure List)

EDTA, Disodium, Dihydrate (6381-92-6)

Not listed on the Canadian IDL (Ingredient Disclosure List)

Mercuric Chloride (7487-94-7)

Listed on the Canadian IDL (Ingredient Disclosure List)

15.3. US State regulations

This product can expose you to Mercuric Chloride, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Mercuric Chloride (7487-94-7)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	No	No	

SECTION 16: Other information

Revision date : 01/24/2018
Other information : None.

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Full text of H-phrases: see section 16:

H300	Fatal if swallowed
H302	Harmful if swallowed
H310	Fatal in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H320	Causes eye irritation
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H402	Harmful to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA health hazard

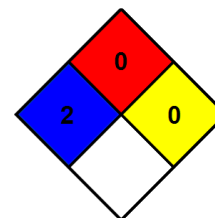
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 0 - Materials that will not burn under typical dire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



Hazard Rating

Health

: 2 Moderate Hazard - Temporary or minor injury may occur

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

: B

B - Safety glasses, Gloves

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