



Material Safety Data Sheet

Buffer solutions, pH 3.00, 4.00, and 5.00, Carbon Standard 1000ppm (organic), Potassium Hydrogen Phthalate Solutions

Section 1 - Chemical Product and Company Identification

MSDS Name:

Buffer solutions, pH 3.00, 4.00, and 5.00, Carbon Standard 1000ppm (organic), Potassium Hydrogen Phthalate Solutions

Catalog Numbers:

LC12250, LC12270, LC12280, LC12300, LC12910, LC18700

Synonyms:

acid phthalate buffers, potassium biphthalate buffers, potassium dihydrogen phthalate buffers, neutralized phthalate buffers, potassium acid phthalate.

Company Identification:

LabChem, Inc.
200 William Pitt Way
Pittsburgh, PA 15238

Company Phone Number:

(412) 826-5230

Emergency Phone Number:

(800) 424-9300

CHEMTREC Phone Number:

(800) 424-9300

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent
7732-18-5	Water	balance
877-24-7	Potassium hydrogen phthalate	>1
50-00-0	Formaldehyde	0.04
7647-01-0	Hydrogen chloride	0-0.1
1310-73-2	Sodium hydroxide	0-0.1

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless - may be color coded (dye) according to pH

Caution! May cause eye and skin irritation.

Target Organs: none known.

Potential Health Effects



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Eye:

May cause eye irritation.

Skin:

May cause skin irritation.

Ingestion:

Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Inhalation:

May cause respiratory tract irritation.

Chronic:

May cause dermatitis and conjunctivitis.

Section 4 - First Aid Measures

Eyes:

Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids until no evidence of chemical remains. Get medical aid at once.

Skin:

Get medical aid. Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Remove contaminated clothing and shoes.

Ingestion:

Give conscious victim 2-4 cupfuls of milk or water. Get medical aid at once. Induce vomiting (touch finger to back of throat) keeping head lower than hips (prevent aspiration into lungs).

Inhalation:

Give artificial respiration if necessary. Get medical aid. Keep victim warm, at rest. Move victim to fresh air.

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

Negligible fire and explosion hazard when exposed to heat or flame. Move container if possible, avoid breathing vapors or dust.

Extinguishing Media:

For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Autoignition Temperature:

No information found.

Flash Point:

No information found.

NFPA Rating:

CAS# 7732-18-5: Not published.

CAS# 877-24-7: Not published.

CAS # 50-00-0 gas: health-3; flammability-4; reactivity-0; 37% methanol-free: health-3; flamma

CAS# 7647-01-0: Not published.

CAS# 1310-73-2: Not published.

Explosion Limits:

Lower: Upper:



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Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spills with absorbent (vermiculite, sand, fuller's earth) and place in plastic bags for later disposal. Keep out of sewers/drains.

Section 7 - Handling and Storage

Handling:

Wash thoroughly after handling. Avoid breathing dust, vapor, mist, or gas.

Storage:

Store capped at room temperature. Protect from heat and incompatibles.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Provide local exhaust or general dilution ventilation.

Exposure Limits

Chemical Name:	ACGIH	NIOSH	OSHA
Water	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Potassium hydrogen phthalate	None of the components are on this list.	None of the components are on this list.	None of the components are on this list.
Formaldehyde	None of the components are on this list.	0.016 ppm TWA; NIOSH Potential Occupational Carcinogen - see Appendix A	0.75 ppm TWA PEL; 2 ppm STEL; 0.5 ppm TWA action level; Irritant and potential c;
Hydrogen chloride	None of the components are on this list.	None of the components are on this list.	C 5 ppm; C 7 mg/m3;
Sodium hydroxide	None of the components are on this list.	None of the components are on this list.	2 mg/m3 TWA;

OSHA Vacated PELs

Formaldehyde: 3 ppm TWA (unless specified in 1910.1048)

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Personal Protective Equipment

Eyes:

Do not wear contact lenses when working with chemicals. An eye wash fountain should be available in the immediate work area. Wear splash-proof safety goggles.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.



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Respirators:

Not required for normal use. Firefighting-- any self-contained breathing apparatus with full facepiece operated in pressure-demand mode.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Color: colorless - may be color coded (dye) according to pH

Odor: odorless

pH: No information found.

Vapor Pressure: 14mm Hg @20°C

Vapor Density: 0.7 (water)

Evaporation Rate: < ether

Viscosity: No information found.

Boiling Point: > 212°F (> 100.00°C)

Freezing/Melting Point: < 32°F (< 0.00°C)

Decomposition Temperature: No information found.

Solubility in water: Soluble.

Specific Gravity/Density: 1.0

Molecular Formula: No information found.

Molecular Weight: No information found.

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures up to boiling point.

Conditions to Avoid:

Incompatible materials.

Incompatibilities with Other Materials

Oleum, sodium, water reactive substances (e.g. sulfuric acid, sodium metal, potassium metal, calcium carbide).

Hazardous Decomposition Products

Chlorine, formaldehyde.

Hazardous Polymerization

Has not been reported

Section 11 - Toxicological Information

RTECS:

CAS# 7732-18-5: ZC0110000.

CAS# 877-24-7 unlisted.

CAS# 50-00-0: LP8925000.

CAS# 7647-01-0: MW4025000.

CAS# 1310-73-2: WB4900000.



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LD50/LC50:

CAS# 7732-18-5:

Oral, rat: LD50 = >90 mL/kg.

CAS# 877-24-7:

No information found. CAS# 50-00-0:

Inhalation, mouse: LC50 = 400 mg/m³/2H

Inhalation, rat: LC50 = 203 mg/m³

Oral, mouse: LD50 = 42 mg/kg

Oral, rat: LD50 = 100 mg/kg

Skin, rabbit: LD50 = 270 mg/kg.

CAS# 7647-01-0:

Inhalation, mouse: LC50 = 1108 ppm/1H

Inhalation, rat: LC50 = 3124 ppm/1H

Oral, rabbit: LD50 = 900 mg/kg.

CAS# 1310-73-2:

No information found.

Carcinogenicity:

CAS# 7732-18-5: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 877-24-7: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

CAS# 50-00-0

ACGIH: A2 - suspected human carcinogen

California: carcinogen; initial date 1/1/88

NIOSH: occupational carcinogen

NTP: Suspect carcinogen

OSHA: Possible Select carcinogen

IARC: Group 2A carcinogen

CAS# 7647-01-0

ACGIH: Not listed.

California: Not listed.

NIOSH: Not listed.

NTP: Not listed.

OSHA: Not listed.

IARC: Group 3

CAS# 1310-73-2: Not listed as a carcinogen by ACGIH, IARC, NIOSH, NTP, OSHA, or CA Prop 65.

Epidemiology:

Potassium hydrogen phthalate is an eye, skin, and mucous membrane irritant.

Teratogenicity:

Reproductive:

Mutagenicity

Neurotoxicity

Section 12 - Ecological Information

No information found.



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Section 13 - Disposal Considerations

Dispose of in accordance with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Not regulated.

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 7732-18-5 is listed on the TSCA Inventory.

CAS# 877-24-7 is listed on the TSCA Inventory.

CAS# 50-00-0 is listed on the TSCA Inventory.

CAS# 7647-01-0 is listed on the TSCA Inventory.

CAS# 1310-73-2 is listed on the TSCA Inventory.

SARA Reportable Quantities (RQ)

CAS# 50-00-0: final RQ = 100 pounds (45.4 kg)

CAS# 7647-01-0: final RQ = 5000 pounds (2270 kg)

CAS# 1310-73-2: final RQ = 1000 pounds (454 kg)

CERCLA/SARA Section 313

Formaldehyde is not at a high enough concentration to be reportable under Section 313.

This material contains Hydrogen chloride (CAS# 7647-01-0, 0-0.1%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

OSHA - Highly Hazardous

CAS# 50-00-0 is considered highly hazardous by OSHA.

CAS# 7647-01-0 is considered highly hazardous by OSHA.

US State

State Right to Know

Formaldehyde can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

Hydrogen chloride can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

Sodium hydroxide can be found on the following state Right-to-Know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.

California Regulations

European/International Regulations



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Canadian DSL/NDSL

CAS# 7732-18-5 is listed on Canada's DSL List.

CAS# 877-24-7 is listed on Canada's DSL List.

CAS# 50-00-0 is listed on Canada's DSL List.

CAS# 7647-01-0 is listed on Canada's DSL List.

CAS# 1310-73-2 is listed on Canada's DSL List.

Canada Ingredient Disclosure List

CAS# 7732-18-5 is not listed on Canada's Ingredient Disclosure List.

CAS# 877-24-7 is not listed on Canada's Ingredient Disclosure List.

CAS# 50-00-0 is listed on Canada's Ingredient Disclosure List.

CAS# 7647-01-0 is listed on Canada's Ingredient Disclosure List.

CAS# 1310-73-2 is listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: February 14, 1998

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