



SAFETY DATA SHEET

1. Identification:

Product Identifier: Buffer Reference Solution pH 4.00

Product code: BB8872 BB4045 BB4046

Synonym(s): Buffer Reference Solution pH 4.00

Recommended use: Manufacture of other chemical products, professional, scientific, and technical activities.

Recommended restrictions: None known.

Manufacturer/Supplier/Distributor Information

Company name: Biopharm Inc.

Address: 187 South Tilley Road
Hatfield, AR 71945

Telephone: (870) 389-6114

Website: www.bphchem.com

E-mail: support@bphchem.com

Emergency phone number: Chemtrec 800-424-9300

2. Hazard(s) identification:

Classification: This product is not categorized as hazardous in any GHS hazard class.

Label elements: None required.

Signal word: None required.

Hazard statement: None required.

Precautionary statement:

Prevention Observe good industrial hygiene practices.

Response Wash hands after handling.

Storage Store bottles tightly capped and upright. Keep in a cool place away from direct sunlight.

Disposal Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC): None known.

Supplemental information: None.

3. Composition/information on ingredients

Mixtures

<u>Chemical Name</u>	<u>CAS number</u>	<u>%</u>
Water	7732-18-5	balance
Potassium acid phthalate	877-24-7	0.5 to 1.5
EDTA	139-33-3	0.2 to 3
Red dye	3734-67-6	Less than 1

4. First-aid measures

Inhalation:	Move to fresh air. Call a physician if symptoms develop or persist.
Ingestion:	Rinse mouth. Get medical attention if symptoms occur.
Skin contact:	Wash with warm water and soap. Get medical attention if irritation develops and persists.
Eye contact:	Irrigate with cool running water. If irritation develops, obtain medical care.
Most important symptoms/effects, acute and delayed:	Direct contact with eyes may cause temporary irritation.
General information:	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media:	Any media necessary for extinguishing the surrounding fire.
Unsuitable extinguishing media:	No information available.
Specific hazards arising from the chemical	None known.
Special protective equipment and precautions for firefighters	Wear approved self-contained protective clothing.
Fire-fighting equipment/instructions	Any media necessary for extinguishing the surrounding fire.

6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures:	Keep unnecessary personnel away.
Methods and materials for containment and cleaning up:	Wash spill area with soap and water. Prevent further leakage or spillage if safe to do so. Never return spills to original containers for reuse. For waste disposal, see section 13 of the SDS.
Environmental precautions:	None identified.

7. Handling and storage

Precautions for safe handling:	Avoid prolonged exposure. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities:	Store bottles tightly capped and upright. Keep in a cool place away from direct sunlight. Store away from incompatible materials.

8. Exposure controls/personal protection

Exposure Guidelines:	No exposure limits noted for ingredient(s).
Engineering measures:	Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.
Personal protective equipment:	
Eye/face protection:	Wear protective eyeglasses or chemical safety goggles.
Skin and body protection:	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory protection:	In case of insufficient ventilation, wear suitable respiratory equipment.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance:	BB4046 = colorless, BB4045 = color red , BB8872 =color red
Odor:	Odorless.
Odor threshold:	No data available.
Vapor Pressure (mm Hg):	No data available
Vapor density (Air = 1):	0.7
pH:	4.00
Relative density:	No data available.
Melting point/freezing point:	32° F
Solubility in Water:	Infinite
Boiling Point (°F):	212° F
Flash point:	Non-flammable.
Evaporative Rate (H₂O = 1):	1
Flammability (solid, gas):	Not applicable
Upper/lower flammability or explosive limits	
Flammability limit - lower	Not applicable.
Flammability limit - upper	Not applicable.
Explosive limit - lower	Not applicable.
Explosive limit - upper	Not applicable.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available

Other information:

Specific Gravity (H₂O = 1):	1.00
Percent Volatile by Volume:	> 99% estimated.

10. Stability and reactivity

Reactivity:	Product is stable and non-reactive under ordinary conditions of use, storage and transport.
Chemical stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Hazardous polymerization will not occur.
Conditions to avoid:	None known.
Incompatible materials:	None known.
Hazardous decomposition products:	None known.

11. Toxicological information**Information on likely routes of exposure:**

Ingestion:	Expected to be a low ingestion hazard.
Inhalation:	Prolonged inhalation may be harmful.
Skin Contact:	No adverse effects due to skin contact are expected.
Eye Contact:	May cause mild irritation.

Information on toxicological effects**Acute toxicity**

<u>Component</u>	<u>LD50 Oral</u>	<u>LD50 Dermal</u>	<u>LC50 Inhalation</u>
Potassium acid phthalate	3200 mg/kg (rat)	= >1 gm/kg; (guinea pig)	Not listed

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	May cause irritation to skin on contact.
Serious eye damage/irritation	May cause irritation to eyes on contact.
Respiratory Sensitization	No data available.
Skin sensitization	No data available.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, NTP, or OSHA.
Mutagenic effects	No data available.
Reproductive effects	No data available.
STOT – single exposure	No data available.
STOT – repeated exposure	No data available.
Aspiration hazard	No data available.

Chronic effects	No data available.
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12. Ecological information

Ecotoxicity:	Not expected to be harmful to aquatic animals.
Persistence and degradability:	No data available
Bioaccumulation/ Accumulation:	No data available
Mobility in soil:	No data available
Other adverse effects:	No adverse environmental effects (e.g. ozone depletion, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Waste disposal methods:	To be performed in compliance with all current local, state and federal regulations. Spills onto sand, soil, or other absorbent may be handled by placing the affected soil into approved containers then label and store for proper treatment or disposal.
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14. Transport information

DOT:	Not regulated as dangerous goods.
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15. Regulatory information

U.S. Federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated
U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not regulated
CERCLA Hazardous Substances List (40 CFR 302.4)	Sodium Hydroxide; Listed

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories	Immediate Hazard – No Delayed Hazard – No Fire Hazard – No Pressure Hazard – No Reactivity Hazard – No
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Other Federal regulations

Clean Air Act	Not applicable
Clean Water Act	Not applicable
California Prop 65	This product does not contain any Proposition 65 chemicals.

16. Other information, including date of preparation or last revision

Revision date	January 27, 2017
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Disclaimer

The statements contained herein are offered as informational data only and are believed to be correct. However, this product should be handled by persons having related technical skills, and at their own discretion and risk. Since seller has no control over the use of this product, no warranty, expressed or implied, is made and seller assumes no liability in connection with any use of this information or from contact and/or handling of this product.

**BIOPHARM INC.**

SAFETY DATA SHEET

1. Identification:

Product Identifier: Buffer Reference Solution pH 7.00
Product code: BB8871 BB4040 BB4041
Synonym(s): Buffer Reference Solution pH 7.00
Recommended use: Manufacture of other chemical products, professional, scientific, and technical activities.
Recommended restrictions: None known.

Manufacturer/Supplier/Distributor Information

Company name: Biopharm Inc.
Address: 187 South Tilley Road
Hatfield, AR 71945
Telephone: (870) 389-6114
Website: www.bphchem.com
E-mail: support@bphchem.com
Emergency phone number: Chemtrec 800-424-9300

2. Hazard(s) identification:

Classification: This product is not categorized as hazardous in any GHS hazard class.
Label elements: None required.
Signal word: None required.
Hazard statement: None required.
Precautionary statement:
Prevention Observe good industrial hygiene practices.
Response Wash hands after handling.
Storage Store bottles tightly capped and upright. Keep in a cool place away from direct sunlight.
Disposal Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC): None known.
Supplemental information: None.

3. Composition/information on ingredients

Mixtures

<u>Chemical Name</u>	<u>CAS number</u>	<u>%</u>
Water	7732-18-5	> 84
Sodium Phosphate Dibasic	7782-85-6	< 5
Potassium Phosphate Monobasic	7778-77-0	< 5
EDTA, disodium salt dehydrate	6381-92-6	< 5
Sodium Hydroxide	1310-73-2	< 1

4. First-aid measures

Inhalation:	Move to fresh air. Call a physician if symptoms develop or persist.
Ingestion:	Rinse mouth. Get medical attention if symptoms occur.
Skin contact:	Wash with warm water and soap. Get medical attention if irritation develops and persists.
Eye contact:	Irrigate with cool running water. If irritation develops, obtain medical care.
Most important symptoms/effects, acute and delayed:	Direct contact with eyes may cause temporary irritation.
General information:	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media:	Any media necessary for extinguishing the surrounding fire.
Unsuitable extinguishing media:	No information available.
Specific hazards arising from the chemical	None known.
Special protective equipment and precautions for firefighters	Wear approved self-contained protective clothing.
Fire-fighting equipment/instructions	Any media necessary for extinguishing the surrounding fire.

6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures:	Keep unnecessary personnel away.
Methods and materials for containment and cleaning up:	Wash spill area with soap and water. Prevent further leakage or spillage if safe to do so. Never return spills to original containers for reuse. For waste disposal, see section 13 of the SDS.
Environmental precautions:	None identified.

7. Handling and storage

Precautions for safe handling:	Avoid prolonged exposure. Observe good industrial hygiene practices.
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Conditions for safe storage, including any incompatibilities:

Store bottles tightly capped and upright. Keep in a cool place away from direct sunlight. Store away from incompatible materials.

8. Exposure controls/personal protection**Exposure Guidelines:****Component****ACGIH TLV****OSHA PEL**

Sodium Hydroxide

2 mg/m³ ppm (STEL/CEILING)2 mg/m³ ppm (STEL/CEILING)**Engineering measures:**

Ensure that eyewash stations and safety showers are close to the workstation location.
Ensure adequate ventilation, especially in confined areas.

Personal protective equipment:**Eye/face protection:**

Wear protective eyeglasses or chemical safety goggles.

Skin and body protection:

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment.

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties**Appearance:**

Clear; BB8871 color yellow, BB4035 color blue, BB4036 colorless

Odor:

Odorless.

Odor threshold:

No data available.

Vapor Pressure (mm Hg):

760 @ 20° C

Vapor density (Air = 1):

1.0

pH:

7.00

Relative density:

No data available.

Melting point/freezing point:

32° F

Solubility in Water:

Infinite

Boiling Point (°F):

212° F

Flash point:

Non-flammable.

Evaporative Rate (H₂O = 1):

1

Flammability (solid, gas):

Not applicable

Upper/lower flammability or explosive limits**Flammability limit - lower**

Not applicable.

Flammability limit - upper

Not applicable.

Explosive limit - lower

Not applicable.

Explosive limit - upper

Not applicable.

Partition coefficient: n-octanol/water

No data available.

Auto-ignition temperature:

No data available

Decomposition temperature:

No data available

Viscosity:

No data available

Other information:

Specific Gravity (H₂O = 1): 1.00
Percent Volatile by Volume: > 99% estimated.

10. Stability and reactivity

Reactivity: Product is stable and non-reactive under ordinary conditions of use, storage and transport.

Chemical stability: Material is stable under normal conditions.

Possibility of hazardous reactions: Hazardous polymerization will not occur.

Conditions to avoid: None known.

Incompatible materials: None known.

Hazardous decomposition products: None known.

11. Toxicological information**Information on likely routes of exposure:**

Ingestion: Expected to be a low ingestion hazard.

Inhalation: Prolonged inhalation may be harmful.

Skin Contact: No adverse effects due to skin contact are expected.

Eye Contact: May cause mild irritation.

Information on toxicological effects**Acute toxicity**

<u>Component</u>	<u>LD50 Oral</u>	<u>LD50 Dermal</u>	<u>LC50 Inhalation</u>
Sodium Hydroxide	Not listed	1350 mg/kg (Rabbit)	Not listed

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation May cause irritation to skin on contact.

Serious eye damage/irritation May cause irritation to eyes on contact.

Respiratory Sensitization No data available.

Skin sensitization No data available.

Carcinogenicity This product is not considered to be a carcinogen by IARC, NTP, or OSHA.

Mutagenic effects No data available.

Reproductive effects No data available.

STOT – single exposure No data available.

STOT – repeated exposure No data available.

Aspiration hazard No data available.

Chronic effects No data available.

12. Ecological information

Ecotoxicity:	Not expected to be harmful to aquatic animals.
Persistence and degradability:	No data available
Bioaccumulation/ Accumulation:	No data available
Mobility in soil:	No data available
Other adverse effects:	No adverse environmental effects (e.g. ozone depletion, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Waste disposal methods:	To be performed in compliance with all current local, state and federal regulations. Spills onto sand, soil, or other absorbent may be handled by placing the affected soil into approved containers then label and store for proper treatment or disposal.
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14. Transport information

DOT:	Not regulated as dangerous goods.
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15. Regulatory information

U.S. Federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated
U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not regulated
CERCLA Hazardous Substances List (40 CFR 302.4)	Sodium Hydroxide; Listed

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories	Immediate Hazard – No
	Delayed Hazard – No
	Fire Hazard – No
	Pressure Hazard – No
	Reactivity Hazard – No

Other Federal regulations

Clean Air Act	Not applicable
Clean Water Act	Not applicable
California Prop 65	This product does not contain any Proposition 65 chemicals.

16. Other information, including date of preparation or last revision

Revision date	January 27, 2017
Disclaimer	The statements contained herein are offered as informational data only and are believed to be correct. However, this product should be handled by persons having related technical skills, and at their own discretion and risk. Since seller has no control over the use of this product, no warranty, expressed or implied, is made and seller assumes no liability in connection with any use of this information or from contact and/or handling of this product.



SAFETY DATA SHEET

1. Identification:

Product Identifier: Buffer Reference Solution pH 10.00
Product code: BB8870 BB4035 BB4036
Synonym(s): Buffer Reference Solution pH 10.00
Recommended use: Manufacture of other chemical products, professional, scientific, and technical activities.
Recommended restrictions: None known.
Chemical family: Not available
Formula: Not available

Manufacturer/Supplier/Distributor Information

Company name: Biopharm Inc.
Address: 187 South Tilley Road
Hatfield, AR 71945
Telephone: (870) 389-6114
Website: www.bphchem.com
E-mail: support@bphchem.com
Emergency phone number: Chemtrec 800-424-9300

2. Hazard(s) identification:

Classification: This product is not categorized as hazardous in any GHS hazard class.
Label elements: None required.
Signal word: None required.
Hazard statement: None required.
Precautionary statement:
Prevention No data available.
Response No data available.
Storage Store bottles tightly capped and upright. Keep in a cool place away from direct sunlight.
Disposal Flush to sewer in compliance with current local, state, and federal regulations.
Hazard(s) not otherwise classified (HNOC): Not classified.
Supplemental information: No data available.

3. Composition/information on ingredients

Mixtures

<u>Chemical Name</u>	<u>CAS number</u>	<u>%</u>
Potassium Chloride	7447-40-7	0.1-0.5
Potassium Borate	1303-96-4	0.3-0.5
EDTA	139-33-3	1.0-1.5
Potassium Hydroxide	1310-58-3	0.1-0.3
Water	7732-18-5	to balance

4. First-aid measures

Inhalation:	Remove to fresh air, if necessary.
Ingestion:	Drink water as a precaution. Do not induce vomiting unless directed by medical personal.
Skin contact:	Wash with warm water and soap.
Eye contact:	Irrigate with cool running water. If irritation develops, obtain medical care.
Most important symptoms/effects, acute and delayed:	May damage fertility or the unborn child
General information:	Persons with pre-disposition to sensitivity or impaired kidney function may be more susceptible to substance effects.

5. Fire-fighting measures

Suitable extinguishing media:	Any media necessary for extinguishing the surrounding fire.
Unsuitable extinguishing media:	No data available.
Specific hazards arising from the chemical	Not applicable.
Special protective equipment and precautions for firefighters	Wear approved self-contained protective clothing.

6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures:	Keep unnecessary personnel away.
Methods and materials for containment and cleaning up:	Wash spill area with soap and water. Flush to sewer in compliance with current local, state, and federal regulations.
Environmental precautions:	Prevent further leakage or spillage if safe to do so. Do not contaminate water.

7. Handling and storage

Precautions for safe handling:	In case of insufficient ventilation, wear suitable respiratory equipment. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not taste or swallow. Do not get this material on clothing. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.
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Conditions for safe storage, including any incompatibilities:	Store bottles tightly capped and upright. Keep in a cool place away from direct sunlight.
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8. Exposure controls/personal protection

Exposure Guidelines:	No exposure limits noted for ingredient(s).
Engineering measures:	General ventilation normally adequate. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment:

Eye/face protection:	Wear protective eyeglasses or chemical safety goggles.
Skin and body protection:	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory protection:	In case of insufficient ventilation, wear suitable respiratory equipment.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance:	BB8870 color blue, BB4035 color green, BB4036 colorless
Odor:	Odorless.
Odor threshold:	No data available.
Vapor Pressure (mm Hg):	No data available.
Vapor density (Air = 1):	No data available.
pH:	10
Relative density:	No data available.
Melting point/freezing point:	No data available.
Solubility in Water:	Infinite
Boiling Point (°F):	No data available.
Flash point:	No data available.
Evaporative Rate (H₂O = 1):	No data available.
Flammability (solid, gas):	No data available.
Upper/lower flammability or explosive limits	
Flammability limit - lower	Not applicable.
Flammability limit - upper	Not applicable.
Explosive limit - lower	Not applicable.
Explosive limit - upper	Not applicable.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
Other information:	
Specific Gravity (H₂O = 1):	The only known value is 1 (water = 1) (water)

Percent Volatile by Volume: No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical stability:	Stable under ordinary conditions of use and storage.
Possibility of hazardous reactions:	Hazardous polymerization will not occur.
Conditions to avoid:	None under normal conditions.
Incompatible materials:	Avoid contact with bromine trifluoride, potassium permanganate, acids, alkaloidal and metallic salts.
Hazardous decomposition products:	No information available.

11. Toxicological information

Information on likely routes of exposure:

Ingestion:	None indicated.
Inhalation:	None indicated.
Skin Contact:	None indicated. May cause irritation to skin on contact.
Eye Contact:	None indicated. May cause irritation to eyes on contact.

Information on toxicological effects

Acute toxicity	Low hazard for usual industrial handling.		
<u>Component</u>	<u>LD50 Oral</u>	<u>LD50 Dermal</u>	<u>LC50 Inhalation</u>
EDTA	2 g/kg (rat)	No data available	No data available
Potassium Hydroxide	284 mg/kg (rat)	No data available	No data available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	May cause irritation to skin on contact.
Serious eye damage/irritation	May cause irritation to eyes on contact.
Respiratory Sensitization	No data available.
Skin sensitization	No data available.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, NTP, or OSHA.
Mutagenic effects	No data available.
Reproductive effects	No data available.
STOT – single exposure	No data available.
STOT – repeated exposure	No data available.
Aspiration hazard	No data available.
Chronic effects	No data available.

12. Ecological information

Ecotoxicity:	No data available.
Persistence and degradability:	No data available.
Bioaccumulation/ Accumulation:	No data available.
Mobility in soil:	No data available
Other adverse effects:	No data available

13. Disposal considerations

Waste disposal methods:	To be performed in compliance with all current local, state and federal regulations. Spills onto sand, soil, or other absorbent may be handled by placing the affected soil into approved containers then label and store for proper treatment or disposal.
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14. Transport information

DOT:	Not regulated as a hazardous material by DOT.
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15. Regulatory information

U.S. Federal regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated
U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not regulated
CERCLA Hazardous Substances List (40 CFR 302.4)	Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories	Immediate Hazard – No
	Delayed Hazard – No
	Fire Hazard – No
	Pressure Hazard – No
	Reactivity Hazard – No

Other Federal regulations

Clean Air Act	Not applicable.
Clean Water Act	Not regulated.
California Prop 65	This product does not contain any Proposition 65 chemicals.

16. Other information, including date of preparation or last revision

Revision date	January 27, 2017
Disclaimer	The statements contained herein are offered as informational data only and are believed to be correct. However, this product should be handled by persons having related technical skills, and at their own discretion and risk. Since seller has no control over the use of this product, no warranty, expressed or implied, is made and seller assumes no liability in connection with any use of this information or from contact and/or handling of this product.

**BIOPHARM INC.**

SAFETY DATA SHEET

1. Identification:

Product Identifier: Electrode Storage Solution
Product code: BE8867
Synonym(s): Not Applicable
Recommended use: Manufacture of other chemical products, professional, scientific, and technical activities.
Recommended restrictions: None known.

Manufacturer/Supplier/Distributor Information

Company name: Biopharm Inc.
Address: 187 South Tilley Road
Hatfield, AR 71945
Telephone: (870) 389-6114
Website: www.bphchem.com
E-mail: support@bphchem.com
Emergency phone number: Chemtrec 800-424-9300

2. Hazard(s) identification:

Classification: This product is not categorized as hazardous in any GHS hazard class.
Label elements: None required.
Signal word: None required.
Hazard statement: None required.
Precautionary statement:
Prevention Observe good industrial hygiene practices.
Response Wash hands after handling.
Storage Store bottles tightly capped and upright. Keep in a cool place away from direct sunlight.
Disposal Dispose of waste and residues in accordance with local authority requirements.
Hazard(s) not otherwise classified (HNOC): None known.
Supplemental information: None.

3. Composition/information on ingredients

Mixtures

<u>Chemical Name</u>	<u>CAS number</u>	<u>%</u>
Water	7732-18-5	> 84
Potassium Acid Phthalate	877-24-7	< 5
Potassium Chloride	7447-40-7	5-10
Ethylenediaminetetraacetic Acid	60-00-4	< 5

4. First-aid measures

Inhalation:	Move to fresh air. Call a physician if symptoms develop or persist.
Ingestion:	Rinse mouth. Get medical attention if symptoms occur.
Skin contact:	Wash with warm water and soap. Get medical attention if irritation develops and persists.
Eye contact:	Irrigate with cool running water. If irritation develops, obtain medical care.
Most important symptoms/effects, acute and delayed:	Direct contact with eyes may cause temporary irritation.
General information:	Treat symptomatically.

5. Fire-fighting measures

Suitable extinguishing media:	Any media necessary for extinguishing the surrounding fire.
Unsuitable extinguishing media:	No information available.
Specific hazards arising from the chemical	None known.
Special protective equipment and precautions for firefighters	Wear approved self-contained protective clothing.
Fire-fighting equipment/instructions	Any media necessary for extinguishing the surrounding fire.

6. Accidental release measures

Personal precautions, protective equipment, and emergency procedures:	Keep unnecessary personnel away.
Methods and materials for containment and cleaning up:	Wash spill area with soap and water. Prevent further leakage or spillage if safe to do so. Never return spills to original containers for reuse. For waste disposal, see section 13 of the SDS.
Environmental precautions:	None identified.

7. Handling and storage

Precautions for safe handling:	Avoid prolonged exposure. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities:	Store bottles tightly capped and upright. Keep in a cool place away from direct sunlight. Store away from incompatible materials.

8. Exposure controls/personal protection

Exposure Guidelines:

Engineering measures:	Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.
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Personal protective equipment:

Eye/face protection:	Wear protective eyeglasses or chemical safety goggles.
Skin and body protection:	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory protection:	In case of insufficient ventilation, wear suitable respiratory equipment.
Hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance:	Colorless, aqueous solution
Odor:	Odorless.
Odor threshold:	No data available.
Vapor Pressure (mm Hg):	No data available.
Vapor density (Air = 1):	No data available.
pH:	4.00
Relative density:	No data available.
Melting point/freezing point:	32° F
Solubility in Water:	Infinite
Boiling Point (°F):	212° F
Flash point:	Non-flammable.
Evaporative Rate (H₂O = 1):	1
Flammability (solid, gas):	Not applicable
Upper/lower flammability or explosive limits	
Flammability limit - lower	Not applicable.
Flammability limit - upper	Not applicable.
Explosive limit - lower	Not applicable.
Explosive limit - upper	Not applicable.
Partition coefficient: n-octanol/water	No data available.
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity:	No data available
Other information:	

Specific Gravity (H ₂ O = 1):	1.00
Percent Volatile by Volume:	> 99% estimated.

10. Stability and reactivity

Reactivity:	Product is stable and non-reactive under ordinary conditions of use, storage and transport.
Chemical stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	Hazardous polymerization will not occur.
Conditions to avoid:	Contact with incompatible materials.
Incompatible materials:	Strong oxidizing agents.
Hazardous decomposition products:	None known.

11. Toxicological information

Information on likely routes of exposure:

Ingestion:	Expected to be a low ingestion hazard.
Inhalation:	Prolonged inhalation may be harmful.
Skin Contact:	No adverse effects due to skin contact are expected.
Eye Contact:	May cause mild irritation.

Information on toxicological effects

Acute toxicity

<u>Component</u>	<u>LD50 Oral</u>	<u>LD50 Dermal</u>	<u>LC50 Inhalation</u>
Potassium Chloride	2600 mg/kg (Rat)	Not listed	Not listed
Potassium Acid Phthalate	3200 mg/kg (Rat)	Not listed	Not listed

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Skin corrosion/irritation	May cause irritation to skin on contact.
Serious eye damage/irritation	May cause irritation to eyes on contact.
Respiratory Sensitization	No data available.
Skin sensitization	No data available.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, NTP, or OSHA.
Mutagenic effects	No data available.
Reproductive effects	No data available.
STOT – single exposure	No data available.
STOT – repeated exposure	No data available.
Aspiration hazard	No data available.
Chronic effects	No data available.

12. Ecological information

Ecotoxicity:	Do not empty into drains				
	Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
	Potassium Chloride	EC50: 2500 mg/L/72h	1060 mg/L LC50 96h 750-1020 mg/L LC50 96h	Not Listed	EC50: 825 mg/L/48h
Persistence and degradability:	No data available				
Bioaccumulation/ Accumulation:	No data available				
Mobility in soil:	No data available				
Other adverse effects:	No adverse environmental effects (e.g. ozone depletion, endocrine disruption, global warming potential) are expected from this component.				

13. Disposal considerations

Waste disposal methods:	To be performed in compliance with all current local, state and federal regulations. Spills onto sand, soil, or other absorbent may be handled by placing the affected soil into approved containers then label and store for proper treatment or disposal.
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14. Transport information

DOT:	Not regulated as dangerous goods.
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15. Regulatory information

U.S. Federal regulations	
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated
U.S. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not regulated
CERCLA Hazardous Substances List (40 CFR 302.4)	Not regulated
Superfund Amendments and Reauthorization Act of 1986 (SARA)	
Hazard Categories	Immediate Hazard – No
	Delayed Hazard – No
	Fire Hazard – No
	Pressure Hazard – No
	Reactivity Hazard – No
Other Federal regulations	
Clean Air Act	Not applicable
Clean Water Act	Not applicable
California Prop 65	This product does not contain any Proposition 65 chemicals.

16. Other information, including date of preparation or last revision

Revision date	January 27, 2017
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Disclaimer

The statements contained herein are offered as informational data only and are believed to be correct. However, this product should be handled by persons having related technical skills, and at their own discretion and risk. Since seller has no control over the use of this product, no warranty, expressed or implied, is made and seller assumes no liability in connection with any use of this information or from contact and/or handling of this product.