CAL-B125 ORP Calibration Kit

Product Instructions

Introduction

The performance of an ORP electrode can be determined by use of the ORP Calibration Kit and the procedures given below. The Calibration Kit can be used for about 30 two-point calibrations.

Items Included

Item	Quantity
pH 4.01 buffer	1 pint
pH 7.00 buffer	1 pint
quinhydrone powder	20 grams
plastic beakers (150mL)	3 each
wooder applicator sticks	approx 50

Preparation

1. Fill a beaker with de-ionized or distilled water to use for rinsing the electrode.

2. Fill a second beaker to the 1/2 oz mark with pH 7 buffer.
   a) To this buffer add the amount of quinhydrone that stays on about 1/4 inch (6 mm) of the wood applicator (see sketch).
   b) Use the wood applicator to stir the quinhydrone into the buffer.
   c) A small amount of quinhydrone MUST remain undissolved; if all the quinhydrone dissolves add a small amount and stir. Repeat as necessary until a small amount of quinhydrone remains un-dissolved.

3. Fill a third beaker to the 1/2 oz mark with pH 4 buffer.
   a) To this buffer add the amount of quinhydrone that stays on about 1/4 inch (6 mm) of the wood applicator (SEE FIG 1).
   b) Use the wood applicator to stir the quinhydrone into the buffer (SEE FIG 2).
   c) A small amount of quinhydrone MUST remain undissolved; See FIG 3 if all thequinhydrone dissolves add a small amount and stir. Repeat as necessary until a small amount of quinhydrone remains un-dissolved.

FIG. 1

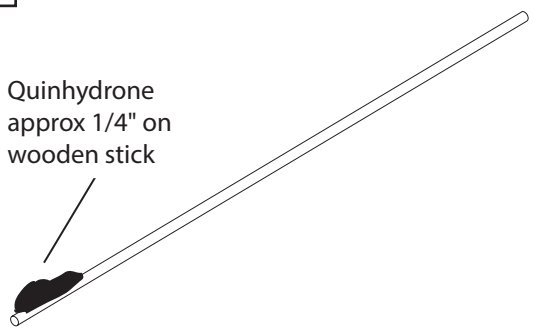

FIG. 2

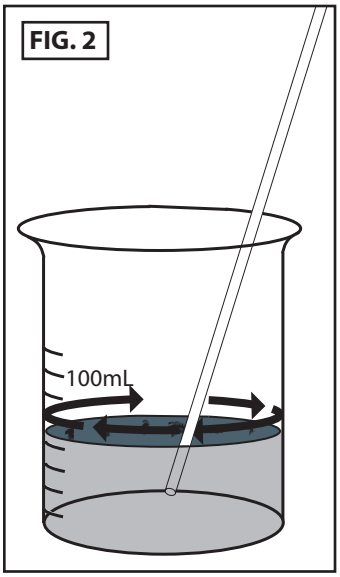

FIG. 3

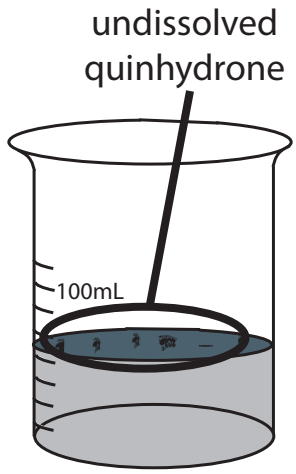

FIG. 4

PLATINUM ORP ELECTRODE IN 7 BUFFER/QUINHYDRONE MIXTURE

Temperature	20C (68F)	**25C (77F)**	30C (86F)
Readings (mV)	89-107	**83-101**	76-94
Readings (pH)	5.20-5.50	**5.30-5.60**	5.42-5.72

PLATINUM ORP ELECTRODE IN 4 BUFFER/QUINHYDRONE MIXTURE

Temperature	20C (68F)	**25C (77F)**	30C (86F)
Readings (mV)	260-287	**254-281**	247-274
Readings (pH)	2.15-2.60	**2.25-2.70**	2.37-2.82

Parts covered by this product data sheet include:
B125

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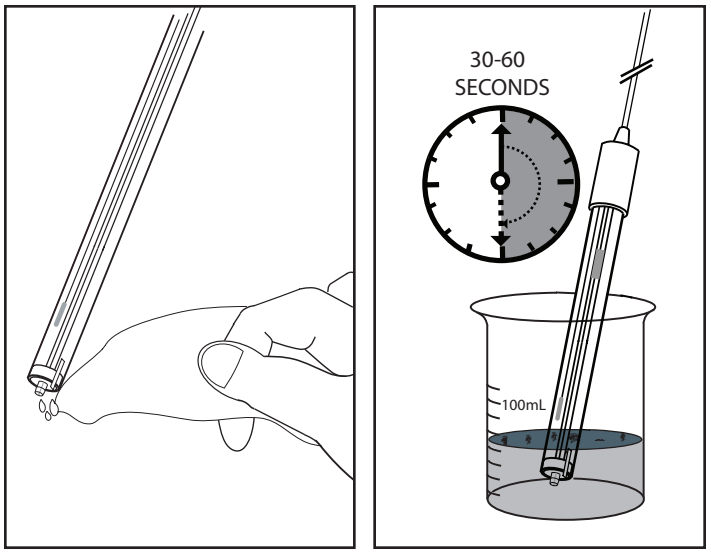
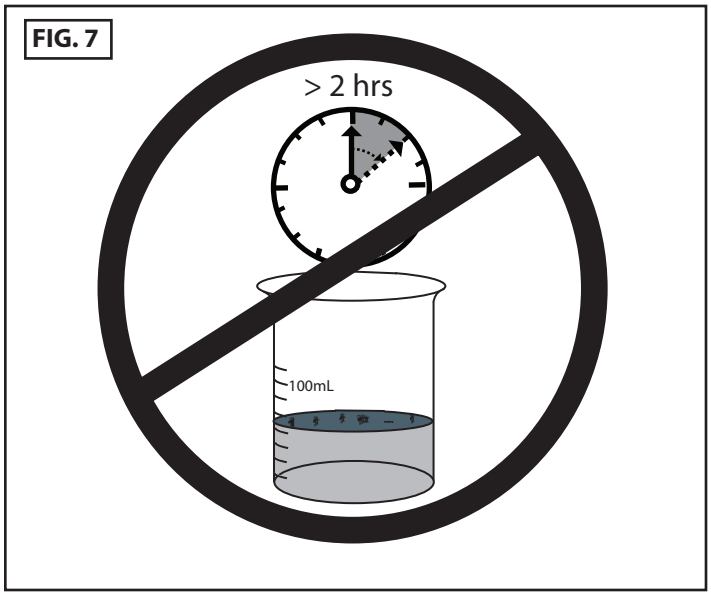
4. Rinse the ORP electrode and pat it dry with a soft tissue as shown in FIG 5.
   a) Put it in the beaker filled with the seven buffer/quinhydrone mixture, stir the electrode gently and let it rest against the side of the beaker.
   b) Allow the reading to stabilize for about 30 to 60 seconds and then not the reading.
   c) The reading should be within about plus or minus 15 mv from the values in FIG 4.

5. Rinse the ORP electrode and pat it dry with a soft tissue
   a) Put it in the beaker filled with the 4 buffer/quinhydrone mixture, stir the electrode gently and let it rest against the side of the beaker.
   b) Allow the reading to stabilize for about 30 to 60 seconds and then note the reading (SEE FIG 6).
   c) The reading should be between +170 mV and +185 mV above the reading in the 7 buffer mixture (step 4). For Example, if the reading from step 4 is +90 mV then the reading from this step should be between +260 mV (90 + 170) and+275 mV (90+185).
   d) With time and/or use, the value in the 7 buffer (step 4) may change. However, the +170 mV to +185 mV change in reading between 7 and 4 buffers (steps 4 and 5) should remain the same. Obtaining this reading means that the electrode has good span and should be able to be calibrated along with the meter to reflect the proper ORP (REDOX) potential

6. If a short span is found—less than a +170 mV change between the 7 and 4 buffers (steps 4 and 5)—the platinum measuring surface may be coated. Remove the coating by one of the following means:
   a) Wipe the surface clean with a soft cloth or tissue.
   b) Soak the electrode in a chemical known to dissolve the suspected coating material.
   c) As a last resort, very gently polish the surface with 600 grade wet silicone carbide paper.
   d) After cleaning, let the electrode soak in one of the calibration solution for about five minutes before re-calibrating

7. The buffer/quinhydrone mixture should be freshly made each time the ORP electrodes are calibrated. Do not store the mixture or use after two hours as their values change with time (SEE FIG 7).





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Section 1 - Chemical Product and Company Identification

GHS Product Indentifier
B115, B125 Quinhydrone

Product Name
Quinhydrone

Manufacturer Name

Sensorex Corporation

Recommended Use/ Restrictions on Use
Use as redox additive in ORP standardizing solution. Not for household use.

Address (Number, Street, City, State and Zip Code)
11751 Markon Drive

Garden Grove, CA. 92841 USA

Emergency Telephone Number (24 hr) (800) 222-1222
American Association of Poison Control Centers

Telephone Number for Information
714-895-4344

Section 2 - Hazards Identification

GHS Classification: Acute toxicity, oral (Category 3), H301. Skin irritation (Category 2), H315. Eye irritation (Category 2A), H319. Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335.

GHS Label Elements

Pictogram:

Signal Word:

Danger

Hazard Statements:

H301 - Toxic if swallowed.
H315 - Causes skin irritation.
H319 - Causes serious eye irritation.

Precautionary Statements:

P261 - Avoid breating dust/fume/gas/mist/vapors/spray.
P264 - Wash exposed skin thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P271 - Use only outdoors or in a well-ventilated area.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P321 - Specific treatment (see supplemental first aid instructions on this label.)
P330 - Rinse mouth.
P332 + P313 - If skin irritation occurs: Get medical advice/attention.
P337 + P313 - If eye irritation occurs: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.
P405 - Store locked up.
P406 - Store in corrosive resistant stainless steel container with a resistant inner liner.
P501 - Dispose of contents/container to an approved waste disposal plant.

Other hazards not classified or covered by GHS: None

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Section 3 - Composition/Ingredient information

Chemical Identity	CAS Registry #	EC#	Percent Weight (%)
Quinhydrone	106-34-3	203-387-6	100

Section 4 - First Aid Measures

Description of Necessary First Aid Measures:

General: Consult a physician. Present this safety data sheet to the doctor in attendance. Move out of dangerous area.

IF INHALED: Move person into fresh air. If not breathing, perform rescue breathing and contact emergency medical personel. If breathing is difficult, give oxygen.

SKIN CONTACT: Wash off with soap and plenty of water. Immediately take victim to hospital. Consult a physician.

INGESTION: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

EYE CONTACT: Irrigate immediately with large quantity of water for at least 15 minutes. Get medical attention immediately.

Most important symptoms/effects, acute and delayed:

INHALATION: Irritation of respiratory tract.

SKIN CONTACT: Irritation.

EYE CONTACT: Irritation.

INGESTION: No additional data available.

Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary:

No data available

Section 5 - Fire-fighting Measures

Suitable extinguishing media:

SUITABLE: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

UNSUITABLE: No unsuitable extinguishing media known.

Specific hazards arising from the chemical (combustion products):

Carbon oxides

Special protective actions for fire-fighters:

Wear self-contained breathing apparatus for fire-fighting if necessary.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency responders:

Wear respiratory protection. Avoid dust and aerosol formation. Ensure adequate ventilation. Refer to Section 8 for Personal Protective Equipment.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment and cleaning up:

Sweep up spill area and shovel. Keep in suitable, closed container for disposal.

Section 7 - Handling and Storage

Precautions for safe handling:
Keep away from sources of ignition. Empty containers pose a fire risk. Ground all equipment containing material. Do not ingest. Do not breathe dust. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical attention immediately and show the container or the label. Avoid contact with skin and eyes.

Conditions for safe storage, including any incompatibles:

Keep container dry. Keep in a cool, well-ventilated place. Keep container tightly closed. Combustible materials should be stored away from extreme heat. Protect from direct sunlight.

INCOMPATIBLE MATERIALS: Strong oxidizers.

Section 8 - Exposure Controls/Personal Protection

Control parameters:

No exposure limits noted for ingredient(s).

Appropriate Engineering Controls:

Handle in accordance with good industrial hygiene and safety practice. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Individual protection measures, personal protective equipment:

RESPIRATORY PROTECTION: For conditions of use where exposure to dust or mist is apparent, a properly fitted, air-purifiying or air-fed respirator must be worn.

SKIN PROTECTION: Wear impervious clothing, boots, chemical resistant gloves, lab coat, apron or coveralls to prevent skin contact.

EYE PROTECTION: Use chemical safety goggles and or a full face shield where splash is possible. Maintain eyewash fountain.

Section 9 - Physical and Chemical Properties

APPEARANCE: Dark green crystalline powder
ODOR: No data available
ODOR THRESHOLD: No data available
FLASH POINT: No data available
VAPOR PRESSURE: No data available
RELATIVE DENSITY: No data available
pH: No data available
BOILING POINT (°C): No data available
MELTING POINT (°C): 167 - 172
FLAMMABILITY: No data available
VAPOR DENSITY: No data available
SOLUBILITY IN WATER: Sparingly
PARTITION COEFFICIENT (n-octonol/water): No data available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available
EVAPORATION RATE compared with (n-butyl acetate = 1): N/A
VISCOSITY: N/A
AUTO-IGNITION TEMPERATURE: No data available
DECOMPOSITION TEMPERATURE: No data available

Section 10 - Stability and Reactivity

REACTIVITY:
No data available

CONDITIONS TO AVOID:
Exposure to air. Exposure to light.

INCOMPATIBLE MATERIALS:
Strong oxidizers.

CHEMICAL STABILITY:
Stable under normal conditions of storage.

POSSIBILITY OF HAZARDOUS REACTIONS:
Hazardous polymerization will not occur.

HAZARDOUS DECOMPOSITION PRODUCTS:
No data available

Section 11 - Toxicological Information

Acute toxicity: Category 3 (Oral).
Skin corrosion/irritation: Category 2.
Serious eye damage/irritation: Category 2A.
Respiratory or skin sensitization: Not classified.
Germ cell mutagenicity: Not classified.
Carcinogenicity: Not classified.
Reproductive toxicity: Not classified.
STOT Single exposure: Not classified.
STOT Repeated exposure: Not classified.
Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics:
No data available

Delayed and immediate effects also chronic from short and long term exposure:
No data available

Numerical measure of toxicity:
TOXICITY DATA United States: Quinhydrone. LD50 225 mg/kg oral rat.

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Section 12 - Ecological Information

ECOTOXICITY:
No data available

PERSISTANCE AND DEGRADABILITY: No data available

BIOACCUMULATIVE POTENTIAL: No data available

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFCTS: No data available

Section 13 - Disposal Considerations

Contact a licensed professional waste disposal service to dispose of this material. Disposal should be in accordance with all applicable regional, national and local laws and regulations.

Section 14 - Transportation Information

UN NUMBER: 2811
UN PROPER SHIPPING NAME: Toxic solids, organic, n.o.s. (Quinhydrone)
TRANSPORT HAZARD CLASS(ES): 6.1
PACKING GROUP: III - Minor danger
ENVIRONMENTAL HAZARD: Not a marine pollutant

Section 15 - Regulatory Information - (NOT ALL INCLUSIVE)

UNITED STATES

OSHA STATUS: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

TSCA Status: TSCA 8(b) inventory: Quinhydrone.

CERCLA Reportable Quantity: N/A.

SARA Title III: Section 302 Extremely hazardous substances: N/A.
Section 311/312 Hazardous categories:
Acute: Yes
Chronic: Yes
Fire: No
Pressure: No
Reactivity: No

RCRA Status: N/A

WHMIS (Canada): Class D-1B: Material causing immediate toxic effects (Toxic).
Class D-2A: Material cause other toxic effects (Very Toxic).

DSCL (EEC): R22 - Harmful if swallowed.
R38 - Irritating to skin.
R41 - Risk of serious damage to eyes.

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Section 16 - Other Information

Date of preparation: March, 2015
This SDS replaces MSDS Quinhydrone RevA - 3/3/2008.

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and Sensorex Corporation assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.

Full text of Hazard Statements referred to in Section 2:

H301	Toxic if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

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11751 Markon Dr.
Garden Grove, CA 92841 USA
Tel: 714-895-4344
Fax: 714-894-4839
E-mail: info@sensorex.com
www.sensorex.com

Form: InstrB125Cal-SDS [Rev: 2015-08-06]

Section 1 - Chemical Product and Company Identification

GHS Product Indentifier
B107, B207, B807

Product Name
Buffer Solution, pH 7.00 (Color Coded-YELLOW)

Manufacturer Name
Sensorex Corporation

Recommended Use/ Restrictions on Use
Use as solution pH 7.00 standard. Not for household use.

Address (Number, Street, City, State and Zip Code)
11751 Markon Drive

Garden Grove, CA. 92841 USA

Emergency Telephone Number (24 hr) (800) 222-1222
American Association of Poison Control Centers

Telephone Number for Information
714-895-4344

Section 2 - Hazards Identification

GHS Classification: Not classified as hazardous material

Other hazards not classified or covered by GHS: None

Section 3 - Composition/Ingredient information

Chemical Identity	CAS Registry #	EC#	Percent Weight (%)
Sodium Phosphate, Dibasic	7558-79-4	231-448-7	<1
Potassium Phosphate, Monobasic	7778-77-0	231-913-4	<1
Preservative	Proprietary		<0.1
Inert Dye	Proprietary		<0.1
Deionized Water	7732-18-5	231-791-2	Balance

Section 4 - First Aid Measures

Description of Necessary First Aid Measures:

General: Consult a physician. Present this safety data sheet to the doctor in attendance. Move out of dangerous area.

IF INHALED: Move person into fresh air. If not breathing, perform rescue breathing and contact emergency medical personel.

SKIN CONTACT: Wash off with soap and plenty of water. Consult a physician.

INGESTION: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

EYE CONTACT: Flush eyes with water.

Most important symptoms/effects, acute and delayed:

INHALATION: No data available

SKIN CONTACT: No data available

EYE CONTACT: No data available

INGESTION: No data available.

Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary:

No data available

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Section 5 - Fire-fighting Measures

Suitable extinguishing media:

SUITABLE: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

UNSUITABLE: No unsuitable extinguishing media known.

Specific hazards arising from the chemical (combustion products):

No data available

Special protective actions for fire-fighters:

Wear self-contained breathing apparatus for fire-fighting if necessary.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency responders:

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Refer to Section 8 for Personal Protective Equipment.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment and cleaning up:

Soak up with inert absorbent material, and keep in suitable closed containers for disposal.

Section 7 - Handling and Storage

Precautions for safe handling:

Do not ingest. Do not get in eyes, skin or on clothing. Keep container closed. Use only with adequate ventilation. Do not breathe vapor or mist. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibles:

Keep in tightly closed container. Store in a cool, dry, well-ventilated area.

INCOMPATIBLE MATERIALS: No data available

Section 8 - Exposure Controls/Personal Protection

Control parameters: No exposure limits noted for ingredient(s).

Appropriate Engineering Controls:

Handle in accordance with good industrial hygiene and safety practice. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Individual protection measures, personal protective equipment:

RESPIRATORY PROTECTION: For conditions of use where exposure to dust or mist is apparent, a properly fitted, air-purifiying or air-fed respirator must be worn.

SKIN PROTECTION: Wear impervious clothing, boots, chemical resistant gloves, lab coat, apron or coveralls to prevent skin contact.

EYE PROTECTION: Use chemical safety goggles and or a full face shield where splash is possible. Maintain eyewash fountain.

Section 9 - Physical and Chemical Properties

APPEARANCE: Light yellow-colored liquid
ODOR: Odorless
ODOR THRESHOLD: N/A
FLASH POINT: N/A
VAPOR PRESSURE: No data available
RELATIVE DENSITY: 1
pH: 7.00
BOILING POINT (°C): Approximately 100
MELTING POINT (°C): Approximately 0
FLAMMABILITY: N/A
VAPOR DENSITY: No data available
SOLUBILITY IN WATER: Infinite
PARTITION COEFFICIENT (n-octonol/water): No data available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available
EVAPORATION RATE compared with (n-butyl acetate = 1): 0.36 (water)
VISCOSITY: No data available
AUTO-IGNITION TEMPERATURE: N/A
DECOMPOSITION TEMPERATURE: No data available

Section 10 - Stability and Reactivity

REACTIVITY:
Chemically inert

CHEMICAL STABILITY:
Stable under normal conditions of use and storage.

CONDITIONS TO AVOID:
Extreme heat

POSSIBILITY OF HAZARDOUS REACTIONS:
Hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS:
No data available.

HAZARDOUS DECOMPOSITION PRODUCTS:
No data available.

Section 11 - Toxicological Information

Acute toxicity: Not classified.
Skin corrosion/irritation: Not classified.
Serious eye damage/irritation: Not classified.
Respiratory or skin sensitization: Not classified.
Germ cell mutagenicity: Not classified.
Carcinogenicity: Not classified.
Reproductive toxicity: Not classified.
STOT Single exposure: Not classified.
STOT Repeated exposure: Not classified.
Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics:
INHALATION: No data available.
SKIN CONTACT: No data available.
EYE CONTACT: No data available.
INGESTION: No data available.

Delayed and immediate effects also chronic from short and long term exposure:
No data available

Numerical measure of toxicity:
Non toxic

Section 12 - Ecological Information

ECOTOXICITY:

No data available

PERSISTANCE AND DEGRADABILITY: No data available

BIOACCUMULATIVE POTENTIAL: Not bioaccumulative

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFCTS: No data available

Section 13 - Disposal Considerations

Material does not have an EPA waste number and is not listed as wasted. Always contact a permitted waste disposal professional to assure compliance with federal, state and local regulations.

Section 14 - Transportation Information

UN NUMBER: Not classified as hazardous material
UN PROPER SHIPPING NAME: Not dangerous goods
TRANSPORT HAZARD CLASS(ES): Not dangerous goods
PACKING GROUP: Not dangerous goods
ENVIRONMENTAL HAZARD: Not classified as hazardous material

Section 15 - Regulatory Information - (NOT ALL INCLUSIVE)

UNITED STATES

OSHA STATUS: The items listed on this Safety Data Sheet do not contain any hazardous material or the potentially hazardous material is present in such low concentration that the items do not present any immediate threat to health or safety. These items do not meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of hazardous material.

TSCA STATUS: All components of this solution listed on the TSCA Inventory are mixtures (hydrates) of items listed on the TSCA Inventory.

CERCLA REPORTABLE QUANTITY: None.

SARA TITLE III:

Section 302 Extremely Hazardous Substances: No
Section 311/312 Hazardous Categories: No
Section 313 Toxic Chemicals: No
RCRA STATUS: No

California Proposition 65: Not listed

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Section 16 - Other Information

Date of preparation: April, 2015.
This Safety Data Sheet replaces MSDS pH7, Rev 0.

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and Sensorex Corporation assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.

Sensorex®
11751 Markon Dr.
Garden Grove, CA 92841 USA
Tel: 714-895-4344
Fax: 714-894-4839
E-mail: info@sensorex.com
www.sensorex.com

Form: InstrB125Cal-SDS [Rev: 2015-08-06]

Section 1 - Chemical Product and Company Identification

GHS Product Indentifier
B104, B204, B804

Product Name
Buffer Solution, pH 4.01 (Color Coded-RED)

Manufacturer Name
Sensorex Corporation

Recommended Use/ Restrictions on Use
Use as solution pH 4.01 standard. Not for household use.

Address (Number, Street, City, State and Zip Code)
11751 Markon Drive

Garden Grove, CA. 92841 USA

Emergency Telephone Number (24 hr) (800) 222-1222
American Association of Poison Control Centers

Telephone Number for Information
714-895-4344

Section 2 - Hazards Identification

GHS Classification: Not classified as hazardous material

Other hazards not classified or covered by GHS: None

Section 3 - Composition/Ingredient information

Chemical Identity	CAS Registry #	EC#	Percent Weight (%)
Potassium acid phthalate	877-24-7	212-889-4	approximately 1
Preservative	Proprietary		<0.1
Inert Dye	Proprietary		<0.1
Deionized Water	7732-18-5	231-791-2	Balance

Section 4 - First Aid Measures

Description of Necessary First Aid Measures:

General: Consult a physician. Present this safety data sheet to the doctor in attendance. Move out of dangerous area.

IF INHALED: Move person into fresh air. If not breathing, perform rescue breathing and contact emergency medical personel.

SKIN CONTACT: Wash off with soap and plenty of water. Consult a physician.

INGESTION: DO NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

EYE CONTACT: Flush eyes with water.

Most important symptoms/effects, acute and delayed:

INHALATION: No data available

SKIN CONTACT: No data available

EYE CONTACT: No data available

INGESTION: No data available.

Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary:

No data available

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Section 5 - Fire-fighting Measures

Suitable extinguishing media:

SUITABLE: Water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

UNSUITABLE: No unsuitable extinguishing media known.

Specific hazards arising from the chemical (combustion products):

No data available

Special protective actions for fire-fighters:

Wear self-contained breathing apparatus for fire-fighting if necessary.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency responders:

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Refer to Section 8 for Personal Protective Equipment.

Environmental precautions:

Do not let product enter drains.

Methods and materials for containment and cleaning up:

Soak up with inert absorbent material, and keep in suitable closed containers for disposal.

Section 7 - Handling and Storage

Precautions for safe handling:

Do not ingest. Do not get in eyes, skin or on clothing. Keep container closed. Use only with adequate ventilation. Do not breathe vapor or mist. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibles:

Keep in tightly closed container. Store in a cool, dry, well-ventilated area.

INCOMPATIBLE MATERIALS: No data available

Section 8 - Exposure Controls/Personal Protection

Control parameters: No exposure limits noted for ingredient(s).

Appropriate Engineering Controls:

Handle in accordance with good industrial hygiene and safety practice. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Individual protection measures, personal protective equipment:

RESPIRATORY PROTECTION: For conditions of use where exposure to dust or mist is apparent, a properly fitted, air-purifiying or air-fed respirator must be worn.

SKIN PROTECTION: Wear impervious clothing, boots, chemical resistant gloves, lab coat, apron or coveralls to prevent skin contact.

EYE PROTECTION: Use chemical safety goggles and or a full face shield where splash is possible. Maintain eyewash fountain.

Section 9 - Physical and Chemical Properties

APPEARANCE: light red-colored liquid
ODOR: Odorless
ODOR THRESHOLD: N/A
FLASH POINT: N/A
VAPOR PRESSURE: No data available
RELATIVE DENSITY: 1
pH: 4.01
BOILING POINT (°C): Approximately 100
MELTING POINT (°C): Approximately 0
FLAMMABILITY: N/A
VAPOR DENSITY: No data available
SOLUBILITY IN WATER: Infinite
PARTITION COEFFICIENT (n-octonol/water): No data available
UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS: No data available
EVAPORATION RATE compared with (n-butyl acetate = 1): 0.36 (water)
VISCOSITY: No data available
AUTO-IGNITION TEMPERATURE: N/A
DECOMPOSITION TEMPERATURE: No data available

Section 10 - Stability and Reactivity

REACTIVITY:
Chemically inert

CHEMICAL STABILITY:
Stable under normal conditions of use and storage.

CONDITIONS TO AVOID:
Extreme heat

POSSIBILITY OF HAZARDOUS REACTIONS:
Hazardous polymerization will not occur.

INCOMPATIBLE MATERIALS:
Strong bases

HAZARDOUS DECOMPOSITION PRODUCTS:
No data available.

Section 11 - Toxicological Information

Acute toxicity: Not classified.
Skin corrosion/irritation: Not classified.
Serious eye damage/irritation: Not classified.
Respiratory or skin sensitization: Not classified.
Germ cell mutagenicity: Not classified.
Carcinogenicity: Not classified.
Reproductive toxicity: Not classified.
STOT Single exposure: Not classified.
STOT Repeated exposure: Not classified.
Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics:
INHALATION: No data available.
SKIN CONTACT: No data available.
EYE CONTACT: No data available.
INGESTION: No data available.

Delayed and immediate effects also chronic from short and long term exposure:
No data available

Numerical measure of toxicity:
Non toxic

Section 12 - Ecological Information

ECOTOXICITY:

No data available

PERSISTANCE AND DEGRADABILITY: No data available

BIOACCUMULATIVE POTENTIAL: No data available

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFCTS: No data available

Section 13 - Disposal Considerations

Material does not have an EPA waste number and is not listed as wasted. Always contact a permitted waste disposal professional to assure compliance with federal, state and local regulations.

Section 14 - Transportation Information

UN NUMBER: Not classified as hazardous material
UN PROPER SHIPPING NAME: Not dangerous goods
TRANSPORT HAZARD CLASS(ES): Not dangerous goods
PACKING GROUP: Not dangerous goods
ENVIRONMENTAL HAZARD: Not classified as hazardous material

Section 15 - Regulatory Information - (NOT ALL INCLUSIVE)

UNITED STATES

OSHA STATUS: The items listed on this Safety Data Sheet do not contain any hazardous material or the potentially hazardous material is present in such low concentration that the items do not present any immediate threat to health or safety. These items do not meet the OSHA Hazard Communication Standard (29 CFR 1910.1200) definition of hazardous material.

TSCA STATUS: All components of this solution listed on the TSCA Inventory are mixtures (hydrates) of items listed on the TSCA Inventory.

CERCLA REPORTABLE QUANTITY: None.

SARA TITLE III:

Section 302 Extremely Hazardous Substances: No
Section 311/312 Hazardous Categories: No
Section 313 Toxic Chemicals: No
RCRA STATUS: No

California Proposition 65: Not listed

Form: InstrB125Cal-SDS [Rev: 2015-08-06]

Section 16 - Other Information

Date of preparation: April, 2015.
This Safety Data Sheet replaces MSDS pH4.01, Rev A.

Information in this SDS is from available published sources and is believed to be accurate. No warranty, express or implied, is made and Sensorex Corporation assumes no liability resulting from the use of this SDS. The user must determine suitability of this information for his application.

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