

Material Safety Data Sheet

NCL of Wisconsin, Inc.
PO Box 8
Birnamwood, WI 54414
Emergency Telephone No: 800-424-9300 (Chemtrec)

Date of this revision: 11-02-2004

Product Identification

Product Name: YSI 3821 Buffer Solution, PH = 4.0
Synonyms: None. Molecular Weight: NA
Chemical Name: NA Chemical Family: NA
Product CAS#: NA Formula: NA

Ingredients

1. Potassium Acid Phthalate CAS# 877-24-7
Percent: <2 SARA: Not Listed.
TLV: Not established. PEL: Not Established
Hazard: May cause eye and respiratory tract irritation.
2. Red Food Coloring CAS# Not listed.
Percent: <0.02 SARA: Not listed
TLV: Not established. PEL: Not established
Hazard: None known.
3. Deionized Water CAS# 7732-18-5
Percent: >98 SARA: Not listed.
TLV: Not applicable PEL: Not applicable
Hazard: None.

Precautionary Measures

Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Minimal contact, as with all chemicals, is a good policy to follow.

Emergency/First Aid

In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. If swallowed, give two glasses of water or milk to dilute. Call a physician.

DOT Hazard Class: Not Regulated

Physical Data

Section One

Appearance: Clear Pink solution
Odor: Odorless
Solubility: Infinitely soluble in water.
Boiling Point: 100° C (212° F)
Melting Point: 0° C (32° F)
Specific Gravity: 1.0
Vapor Density (Air=1): Essentially the same as water.
Vapor Pressure (mm Hg): Essentially the same as water.
Evaporation Rate: Essentially the same as water.

Fire and Explosion
Information

Section Two

Fire: Not considered to be a fire hazard.

Explosion: Not considered to be and explosion hazard

Fire Extinguishing Media: Use any suitable means for extinguishing surrounding fire.

Reactivity Data

Section Three

Stability: Stable under ordinary conditions of use and storage

Hazardous Decomposition Products: May emit toxic fumes of carbon monoxide, carbon dioxide, and potassium oxide if involved in a fire.

Hazardous Polymerization: This substance does not polymerize.

Incompatibilities: Strong solutions of nitric acid.

Leak/Spill/Disposal
Information

Section Four

Flush to sewer with large amounts of water.

Ensure compliance with Federal, State, and local regulations

Reportable Quantity: 5000 lbs.

Health Hazard Information

Section Five

A. Exposure/Health Effects

Inhalation: May cause irritation to mucous membranes due to slight acidity.

Ingestion: Large doses may cause nausea, vomiting and abnormal sensations in hands and feet. Because of slight acidity, may cause irritation to mucous membranes.

Skin Contact: May cause irritation, redness, and pain.

Eye Contact: May cause irritation and damage.

Chronic Exposure: No information found.

Cancer information: No information found for any ingredient

Aggravation of Pre-existing Conditions: No information found

B. First Aid

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion: If swallowed, give two glasses of water to dilute. Give medical attention immediately.

Skin Exposure: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Get medical attention if irritation develops or persists.

Eye Exposure: Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attentions immediately.

Occupational Control
Measures

Section Six

Ventilation System: In general, dilution ventilation is a satisfactory health hazard control for this material. However, if conditions of use create discomfort to a worker, a local exhaust should be considered.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to mist exists, a dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.

Skin Protection: Rubber gloves and lab coat, apron or overalls.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material.

Maintain eye-wash fountain and quick-drench facilities in work areas.

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Storage and Special
Information
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Section Seven

Keep in a tightly closed container. Protect container from physical damage.

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The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, NCL of Wisconsin, Inc. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, NCL of Wisconsin, Inc will not be responsible for damages of any kind resulting from the use of or reliance upon such information. NO REPRESENTATIONS, OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR TO THE PRODUCT TO WHICH THE INFORMATION REFERS.
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END OF MATERIAL SAFETY DATA SHEET

Material Safety Data Sheet

NCL of Wisconsin, Inc.
PO Box 8
Biramwood, WI 54414
Emergency Telephone No: 800-424-9300 (Chemtrec)

Date of this revision: 11-02-2004

Product Identification

Product Name: YSI 3822 Buffer Solution, pH = 7.00
Synonyms: None. Molecular Weight: NA
Chemical Name: NA Chemical Family: NA
Product CAS#: NA Formula: NA

Ingredients

1. Potassium Phosphate Monobasic CAS# 7778-77-0
Percent: <1 SARA: Not Listed.
TLV: Not established. PEL: Not Established
Hazard: Moderately toxic - May cause Irritation.
2. Sodium Hydroxide CAS# 1310-73-2.
Percent: <1 SARA: Not listed
TLV: 2 mg/m³ PEL: 2 mg/m³
3. Yellow Food Coloring CAS# Not listed.
Percent: <0.02 SARA: Not listed.
TLV: Not established. PEL: Not established.
Hazard: None Known.
4. Deionized Water CAS# 7732-18-5
Percent: >98 SARA: Not listed.
TLV: Not applicable PEL: Not applicable
Hazard: None.

Precautionary Measures

Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Minimal contact, as with all chemicals, is a good policy to follow.

Emergency/First Aid

In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. If swallowed, give two glasses of water or milk to dilute. Call a physician.

DOT Hazard Class: Not Regulated

Physical Data

Section One

Appearance: Clear yellow solution
Odor: Odorless
Solubility: Infinitely soluble in water.
Boiling Point: 100° C (212° F)
Melting Point: 0° C (32° F)
Specific Gravity: 1.0

Vapor Density (Air=1): Essentially the same as water.
Vapor Pressure (mm Hg): Essentially the same as water.
Evaporation Rate: Essentially the same as water.

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Fire and Explosion Information Section Two
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Fire: Not considered to be a fire hazard.
Explosion: Not considered to be and explosion hazard
Fire Extinguishing Media: Use any suitable means for extinguishing surrounding fire.

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Reactivity Data Section Three
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Stability: Stable under ordinary conditions of use and storage
Hazardous Decomposition Products: None known.
Hazardous Polymerization: This substance does not polymerize.
Incompatibilities: None known.

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Leak/Spill/Disposal Information Section Four
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Flush to sewer with large amounts of water.
Ensure compliance with Federal, State, and local regulations
Reportable Quantity: 5000 lbs.

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Health Hazard Information Section Five
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- A. Exposure/Health Effects
- Inhalation: No information found.
 - Ingestion: Large doses may cause diarrhea.
 - Skin Contact: Prolonged contact may cause irritation.
 - Eye Contact: May cause irritation and damage.
 - Chronic Exposure: Potassium phosphate, one of the ingredients, may sequester calcium and cause calcium phosphate deposits in the kidneys.
 - Cancer information: No information found for any ingredient
 - Aggravation of Pre-existing Conditions: No information found
- B. First Aid
- Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
 - Ingestion: If swallowed, give two glasses of water to dilute. Give medical attention immediately.
 - Skin Exposure: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Get medical attention if irritation develops or persists.
 - Eye Exposure: Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attentions immediately.

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Occupational Control Measures Section Six
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Ventilation System: In general, dilution ventilation is a satisfactory health hazard control for this material. However, if conditions of use create discomfort to a worker, a local exhaust should be considered.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to mist exists, a dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.

Skin Protection: Rubber gloves and lab coat, apron or overalls.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material.

Maintain eye-wash fountain and quick-drench facilities in work areas.

Storage and Special
Information

Section Seven

Keep in a tightly closed container. Protect container from physical damage.

The information contained herein is provided in good faith and is believed to be correct as of the date hereof. However, NCL of Wisconsin, Inc. makes no representation as to the comprehensiveness or accuracy of the information. It is expected that individuals receiving the information will exercise their independent judgment in determining its appropriateness for a particular purpose. Accordingly, NCL of Wisconsin, Inc will not be responsible for damages of any kind resulting from the use of or reliance upon such information. NO REPRESENTATIONS, OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR TO THE PRODUCT TO WHICH THE INFORMATION REFERS.

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PO Box 8
Biramwood, WI 54414
Emergency Telephone No: 800-424-9300 (Chemtrec)

Date of this revision: 11-02-2004

Product Identification

Product Name: YSI 3823 Buffer Solution, PH = 10.00
Synonyms: None. Molecular Weight: NA
Chemical Name: NA Chemical Family: NA
Product CAS#: NA Formula: NA

Ingredients

1. Disodium EDTA dehydrate CAS# 6381-92-6
Percent: 1 SARA: Not Listed.
TLV: Not established. PEL: Not Established
Hazard: Slight. May cause irritation. Moderately toxic by ingestion.
2. Potassium Carbonate CAS# 584-08-7
Percent: <1 SARA: Not listed
TLV: Not established. PEL: Not established
Hazard: Slight. Causes irritation.
3. Potassium Borate CAS# 12228-88-5.
Percent: <1 SARA: Not listed.
TLV: Not established. PEL: Not established.
Hazard: Unknown
4. Potassium Hydroxide CAS# 1310-58-3
Percent: <1 SARA: Listed.
TLV: 2 mg/m³ PEL: 2 mg/m³
Hazard: Moderate. May cause burns.
5. Blue Food Coloring CAS# Not listed.
Percent: <0.02 SARA: Not listed.
TLV: Not established. PEL: Not established.
Hazard: None known.
6. Deionized water CAS# 7732-18-5
Percent: >98 SARA: Not listed
TLV: Not applicable. PEL: Not applicable.
Hazard: None.

Precautionary Measures

Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Minimal contact, as with all chemicals, is a good policy to follow.

Emergency/First Aid

In case of contact, immediately flush skin or eyes with plenty of water for at least 15 minutes. If swallowed, give two glasses of water or milk to dilute. Call a physician.

DOT Hazard Class: Not Regulated

Physical Data

Section One

Appearance: Clear blue solution.
Odor: Odorless
Solubility: Infinitely soluble in water.
Boiling Point: 100° C (212° F)
Melting Point: 0° C (32° F)
Specific Gravity: 1.0
Vapor Density (Air=1): Essentially the same as water.
Vapor Pressure (mm Hg): Essentially the same as water.
Evaporation Rate: Essentially the same as water.

Fire and Explosion
Information

Section Two

Fire: Not considered to be a fire hazard.
Explosion: Not considered to be and explosion hazard
Fire Extinguishing Media: Use any suitable means for extinguishing surrounding fire.

Reactivity Data

Section Three

Stability: Stable under ordinary conditions of use and storage
Hazardous Decomposition Products: None known.
Hazardous Polymerization: This substance does not polymerize.
Incompatibilities: None known.

Leak/Spill/Disposal
Information

Section Four

Flush to sewer with large amounts of water.
Ensure compliance with Federal, State, and local regulations
Reportable Quantity: 5000 lbs.

Health Hazard Information

Section Five

A. Exposure/Health Effects

Inhalation: May cause sore throat and irritation to mucous membranes.
Ingestion: If sufficient amounts are ingested, systemic poisoning may occur.
Skin Contact: Prolonged contact may cause irritation.
Eye Contact: May cause irritation.
Chronic Exposure: No information found for any ingredient.
Cancer information: No information found for any ingredient
Aggravation of Pre-existing Conditions: No information found

B. First Aid

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.
Ingestion: If swallowed, give two glasses of water to dilute. Give medical attention immediately.
Skin Exposure: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing. Get medical attention if irritation develops or persists.
Eye Exposure: Wash eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attentions immediately.

Ventilation System: In general, dilution ventilation is a satisfactory health hazard control for this material. However, if conditions of use create discomfort to a worker, a local exhaust should be considered.

Personal Respirators (NIOSH Approved): For conditions of use where exposure to mist exists, a dust/mist respirator may be worn. For emergencies, a self-contained breathing apparatus may be necessary.

Skin Protection: Rubber gloves and lab coat, apron or overalls.

Eye Protection: Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material.

Maintain eye-wash fountain and quick-drench facilities in work areas.

Keep in a tightly closed container. Protect container from physical damage.

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END OF MATERIAL SAFETY DATA SHEET