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**** MATERIAL SAFETY DATA SHEET ****

Buffer Solution pH 10.0 (Color-Coded Blue) 41141

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Buffer Solution pH 10.0 (Color-Coded Blue)

Catalog Numbers:

13636AR10, 13636AR11, 13636AR12C, 13636AR15, 13636AR25, 13636AR26, 13636AR50, SB115 20, SB115 4, SB115 500, SB11520, SB1154, SB115500

Synonyms:

None

Company Identification: Fisher Scientific

1 Reagent Lane

Fairlawn, NJ 07410

For information, call:

201-796-7100 201-796-7100

Emergency Number:

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

+		+	+	t+
ij	CAS#	Chemical Name		EINECS# :
	0-00-0	Blue Food Color	0.02	unlisted
-		Potassium carbonate	0.6	209-529-3
	1310-58-3	Potassium hydroxide		215-181-3
į	1332-77-0	Potassium borate		215-575-5
		Disodium dihydrogen ethylenediaminetet raacetatedihydrate	1.0	1
+	7732-18-5		Balance	231-791-2

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Appearance: clear, colorless. Caution! May cause irritation.

Target Organs: None.

Potential Health Effects

Eye:

May cause eye irritation.

Skin:

May cause mild skin irritation. Low hazard for usual industrial handling.

Ingestion:

←E

Low hazard for usual industrial handling. May cause gastric disturbances and electrolytic imbalance.

Inhalation:

May cause respiratory tract irritation. Low hazard for usual industrial handling.

Chronic:

No information found.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:

Get medical aid. Gently lift eyelids and flush continuously with water.

Skin:

Get medical aid if irritation develops or persists. Flush skin with

FROM: Fisher Scientific TO: Extension PAGES: 2 plenty of soap and water. Ingestion: If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid. Inhalation: Get medical aid immediately. Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. Notes to Physician: Treat symptomatically and supportively. Antidote: None reported. **** SECTION 5 - FIRE FIGHTING MEASURES **** General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Extinguishing Media: Substance is noncombustible; use agent most appropriate to extinguish surrounding fire. Autoignition Temperature: Not available. Flash Point: Not available. NFPA Rating: Not published. Explosion Limits, Lower: Not available. Upper: Not available. **** SECTION 6 - ACCIDENTAL RELEASE MEASURES **** General Information: Use proper personal protective equipment as indicated in Section 8. Spills/Leaks:

Absorb spill with inert material, (e.g., dry sand or earth), then place into a chemical waste container.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Use with adequate ventilation. Avoid contact with eyes. Keep container tightly closed.

Storage:

+E

Store in a cool, dry place.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:

Good general ventilation should be sufficient to control airborne levels.

Exposure Limits

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Chemical Name			OSHA - Final PELs:
Blue Food Color		none listed	none listed
Potassium carbonate	none listed	none listed	none listed
Potassium hydroxide			none listed
Potassium borate		none listed	none listed
Disodium dihydrogen ethylenediaminetet raacetatedihydrate	none listed	none listed	none listed
		none listed	none listed
,	+	r	++

OSHA Vacated PELs:

FROM: Fisher Scientific TO: Extension PAGES: 2 Blue Food Color: No OSHA Vacated PELs are listed for this chemical. Potassium carbonate: No OSHA Vacated PELs are listed for this chemical. Potassium hydroxide: No OSHA Vacated PELs are listed for this chemical. Potassium borate: No OSHA Vacated PELs are listed for this chemical. Disodium dihydrogen ethylenediaminetetraacetatedihydrate: No OSHA Vacated PELs are listed for this chemical. Water: No OSHA Vacated PELs are listed for this chemical. Personal Protective Equipment Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Skin: Wear appropriate gloves to prevent skin exposure. Clothing: Wear appropriate protective clothing to minimize contact with skin. Respirators: ←E Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary. **** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES **** Physical State: Liquid Appearance: clear, colorless Odor: odorless pH: 10.0 Vapor Pressure: Not available. Vapor Density: Not available. Evaporation Rate: >1 (Water=1) Viscosity: Not available. Boiling Point: 212 deg F Freezing/Melting Point: 32 deg F Decomposition Temperature: Not available. Solubility: Soluble in water Specific Gravity/Density: Not available. Molecular Formula: Mixture Molecular Weight: Not available **** SECTION 10 - STABILITY AND REACTIVITY **** Chemical Stability: Stable. Conditions to Avoid: None reported. Incompatibilities with Other Materials: Not available. Hazardous Decomposition Products:

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:

CAS# 0-00-0 unlisted.

CAS# 584-08-7: TS7750000

CAS# 1310-58-3: TT2100000

Hazardous Polymerization: Not available.

CAS# 1332-77-0 unlisted.

CAS# 6381-92-6: AH4410000

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CAS# 7732-18-5: ZC0110000
     LD50/LC50:
          Not available.
           CAS# 584-08-7: Oral, mouse: LD50 = 2570 mg/kg; Oral, rat: LD50 =
           1870 mg/kg.
           CAS# 1310-58-3: Oral, rat: LD50 = 273 mg/kg.
          CAS# 1332-77-0.
          CAS# 6381-92-6.
          CAS# 7732-18-5: Oral, rat: LD50 = >90 mL/kg.
     Carcinogenicity:
       Blue Food Color -
          Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
←E
       Potassium carbonate -
          Not listed by ACCIH, IARC, NIOSH, NTP, or OSHA.
       Potassium hydroxide
          Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
       Potassium borate -
          Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
       Disodium dihydrogen ethylenediaminetetraacetatedihydrate -
          Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
       Water
          Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
     Epidemiology:
          No data available.
     Teratogenicity:
          No data available.
     Reproductive Effects:
          No data available.
     Neurotoxicity:
          No data available.
     Mutagenicity:
          No data available.
     Other Studies:
          No data available.
                  **** SECTION 12 - ECOLOGICAL INFORMATION ****
     Environmental Fate:
          No information reported.
     Physical/Chemical:
          No information available.
     Other:
          None.
                 **** SECTION 13 - DISPOSAL CONSIDERATIONS ****
Dispose of in a manner consistent with federal, state, and local regulations.
RCRA D-Series Maximum Concentration of Contaminants:
None listed.
RCRA D-Series Chronic Toxicity Reference Levels: None
listed.
RCRA F-Series: None listed.
RCRA P-Series: None listed.
RCRA U-Series: None listed.
Not listed as a material banned from land disposal
according to RCRA.
                  **** SECTION 14 - TRANSPORT INFORMATION ****
     US DOT
          No information available
     IMO
          No information available.
     IATA
          No information available.
    RID/ADR
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No information available.

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Canadian TDG

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**** SECTION 15 - REGULATORY INFORMATION ****

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US FEDERAL
     TSCA
          CAS# 0-00-0 is not listed on the TSCA inventory.
          It is for research and development use only.
          CAS# 584-08-7 is listed on the TSCA inventory.
          CAS# 1310-58-3 is listed on the TSCA inventory.
          CAS# 1332-77-0 is listed on the TSCA inventory.
          CAS# 6381-92-6 is not listed on the TSCA inventory.
          It is for research and development use only.
          CAS# 7732-18-5 is listed on the TSCA inventory.
        Health & Safety Reporting List
          None of the chemicals are on the Health & Safety Reporting List.
        Chemical Test Rules
          None of the chemicals in this product are under a Chemical Test Rule.
        Section 12b
          None of the chemicals are listed under TSCA Section 12b.
        TSCA Significant New Use Rule
          None of the chemicals in this material have a SNUR under TSCA.
        Section 302 (RQ)
          CAS# 1310-58-3: final RQ = 1000 pounds (454 kg)
        Section 302 (TPQ)
          None of the chemicals in this product have a TPQ.
        SARA Codes
          CAS # 584-08-7: acute.
          CAS # 1310-58-3: acute, reactive.
          CAS # 6381-92-6: acute.
        Section 313
          No chemicals are reportable under Section 313.
     Clean Air Act:
          This material does not contain any hazardous air pollutants.
          This material does not contain any Class 1 Ozone depletors.
          This material does not contain any Class 2 Ozone depletors.
     Clean Water Act:
          CAS# 1310-58-3 is listed as a Hazardous Substance under the CWA.
          None of the chemicals in this product are listed as Priority
          Pollutants under the CWA.
          None of the chemicals in this product are listed as Toxic Pollutants
          under the CWA.
     OSHA:
          None of the chemicals in this product are considered highly hazardous
          by OSHA.
 STATE
     Blue Food Color is not present on state lists from CA, PA, MN, MA,
     FL, or NJ.
     Potassium carbonate is not present on state lists from CA, PA, MN,
     MA, FL, or NJ.
     Potassium hydroxide can be found on the following state right to know
     lists: California, New Jersey, Florida, Pennsylvania, Minnesota,
    Massachusetts.
←E
    Potassium borate is not present on state lists from CA, PA, MN, MA,
    FL, or NJ.
    Disodium dihydrogen ethylenediaminetetraacetatedihydrate is not
    present on state lists from CA, PA, MN, MA, FL, or NJ.
    Water is not present on state lists from CA, PA, MN, MA, FL, or NJ.
    California No Significant Risk Level:
    None of the chemicals in this product are listed.
European/International Regulations
    European Labeling in Accordance with EC Directives
         Hazard Symbols: Not available.
         Risk Phrases:
         Safety Phrases:
  WGK (Water Danger/Protection)
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CAS# 0-00-0: No information available.

CAS# 584-08-7: 1

FROM: Fisher Scientific TO: Extension PAGES: 2 CAS# 1310-58-3: 1 CAS# 1332-77-0: No information available. CAS# 6381-92-6: 2 CAS# 7732-18-5: No information available. Canada CAS# 584-08-7 is listed on Canada's DSL/NDSL List. CAS# 1310-58-3 is listed on Canada's DSL/NDSL List. CAS# 1332-77-0 is listed on Canada's DSL/NDSL List. CAS# 7732-18-5 is listed on Canada's DSL/NDSL List. This product has a WHMIS classification of D2B. CAS# 0-00-0 is not listed on Canada's Ingredient Disclosure List. CAS# 584-08-7 is not listed on Canada's Ingredient Disclosure List. CAS# 1310-58-3 is not listed on Canada's Ingredient Disclosure List. CAS# 1332-77-0 is not listed on Canada's Ingredient Disclosure List. CAS# 6381-92-6 is not listed on Canada's Ingredient Disclosure List.

CAS# 1310-58-3:. OEL-AUSTRALIA:TWA 2 mg/m3. OEL-BELGIUM:STEL 2 mg/m3

OEL-DENMARK:TWA 2 mg/m3. OEL-FINLAND:TWA 2 mg/m3. OEL-FRANCE:STEL 2 m
g/m3. OEL-JAPAN:STEL 2 mg/m3. OEL-THE NETHERLANDS:TWA 2 mg/m3

OEL-SWI

Exposure Limits

TZERLAND: TWA 2 mg/m3. OEL-UNITED KINGDOM: TWA 2 mg/m3; STEL 2 mg/m3. OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV. OEL IN NEW ZEAL AND, SINGAPORE, VIETNAM check ACGI TLV

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

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 2/14/1995 Revision #6 Date: 9/02/1997

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.