



MATERIAL SAFETY DATA SHEET  
Buffer Solution pH 7.0

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Buffer Solution pH 7.0  
**Catalog Numbers:** J/2855/08, J/2855/15, J/2855/17, J/2855/21, J/2855/24  
**Synonyms:** None  
**Company Identification:** Fisher Scientific UK  
 Bishop Meadow Road, Loughborough  
 Leics. LE11 5RG  
**For information in Europe, call:** (01509) 231166  
**Emergency Number, Europe:** 01509 231166

### Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	%	EINECS#	Hazard Symbols:	Risk Phrases:
7487-94-7	Mercuric chloride	<0.001	231-299-8		
7558-79-4	Sodium phosphate dibasic	0.426	231-448-7		
7647-14-5	Sodium chloride	0.117	231-598-3		
7732-18-5	Water	Balance	231-791-2		
7778-77-0	Potassium dihydrogen orthophosphate	0.272	231-913-4		

Text for R-phrases: see Section 16

**Hazard Symbols:** None listed

**Risk Phrases:** None listed

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

*Not available*

#### Potential Health Effects

**Eye:** Low hazard for normal industrial handling.  
**Skin:** Low hazard for usual industrial handling.  
**Ingestion:** Low hazard for usual industrial handling.  
**Inhalation:** Low hazard for usual industrial handling.  
**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.  
**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated

clothing and shoes. Get medical aid if irritation develops or persists.

**Ingestion:** If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid if irritation or symptoms occur.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:**

### 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.

### Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal.

### Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Use only in a well-ventilated area. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

**Storage:** Store in a cool, dry place. Store in a tightly closed container.

### Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:**

Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

**Exposure Limits**

CAS# 7487-94-7:

United States OSHA: 0.1 mg/m<sup>3</sup> Ceiling (Mercury, aryl and inorganic compounds).  
Belgium - TWA: ( mercury, aryl and inorganic compounds): 0.1 mg/m<sup>3</sup> VLE (as Hg)  
France - VME: ( mercury, aryl and inorganic compounds): 0.1 mg/m<sup>3</sup> VME (as Hg)  
Germany: ( mercury, aryl and inorganic compounds): 0.1 mg/m<sup>3</sup> VME (as Hg) Germany: ( mercury inorganic compounds): Skin absorber  
Malaysia: ( mercury, aryl and inorganic compounds): 0.1 mg/m<sup>3</sup> TWA (as Hg)  
Netherlands: ( mercury inorganic compounds): 0.15 mg/m<sup>3</sup> STEL Netherlands: ( mercury inorganic compounds): 0.05 mg/m<sup>3</sup> MAC  
Russia: ( mercury inorganic compounds): 0.2 mg/m<sup>3</sup> TWA (as Hg) Russia: ( mercury inorganic compounds): 0.05 mg/m<sup>3</sup> STEL (as Hg)  
Spain: ( mercury, aryl and inorganic compounds): 0.1 mg/m<sup>3</sup> VLA-ED (as Hg)

CAS# 7558-79-4:

CAS# 7647-14-5:

Russia: 5 mg/m<sup>3</sup> TWA

CAS# 7732-18-5:

CAS# 7778-77-0:

## 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:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

- Physical State:** Liquid
- Color:** clear colorless
- Odor:** Not available
- pH:** 7.0
- Vapor Pressure:** Not available
- Viscosity:** Not available
- Boiling Point:** Not available
- Freezing/Melting Point:** Not available
- Autoignition Temperature:** Not applicable
- Flash Point:** Not applicable.
- Explosion Limits: Lower:** Not available
- Explosion Limits: Upper:** Not available
- Decomposition Temperature:** Not available
- Solubility in water:** Miscible with water,
- Specific Gravity/Density:** 1.0
- Molecular Formula:** Solution
- Molecular Weight:** 0

## Section 10 - Stability and Reactivity

- Chemical Stability:** Stable.
- Conditions to Avoid:** None reported.
- Incompatibilities with Other Materials** Not available
- Hazardous Decomposition Products** Irritating and toxic gases.
- Hazardous Polymerization** Has not been reported.

## Section 11 - Toxicological Information

- RTECS#:** CAS# 7487-94-7: OV9100000  
CAS# 7558-79-4: WC4500000  
CAS# 7647-14-5: VZ4725000  
CAS# 7732-18-5: ZC0110000  
CAS# 7778-77-0: TC6615500
- LD50/LC50:** RTECS:  
**CAS# 7487-94-7:** Draize test, rabbit, eye: 50 ug/24H Severe;  
Draize test, rabbit, skin: 500 mg/24H Severe;  
Oral, mouse: LD50 = 6 mg/kg;  
Oral, rat: LD50 = 1 mg/kg;  
Skin, rat: LD50 = 41 mg/kg;
- RTECS:

**CAS# 7558-79-4:** Draize test, rabbit, eye: 500 mg/24H Mild;  
Draize test, rabbit, skin: 500 mg/24H Mild;  
Oral, rat: LD50 = 17 gm/kg;

RTECS:

**CAS# 7647-14-5:** Draize test, rabbit, eye: 100 mg Mild;  
Draize test, rabbit, eye: 100 mg/24H Moderate;  
Draize test, rabbit, eye: 10 mg Moderate;  
Draize test, rabbit, skin: 50 mg/24H Mild;  
Draize test, rabbit, skin: 500 mg/24H Mild;  
Inhalation, rat: LC50 = >42 gm/m<sup>3</sup>/1H;  
Oral, mouse: LD50 = 4 gm/kg;  
Oral, rat: LD50 = 3000 mg/kg;  
Skin, rabbit: LD50 = >10 gm/kg;

RTECS:

**CAS# 7732-18-5:** Oral, rat: LD50 = >90 mL/kg;

RTECS:

**CAS# 7778-77-0:** Skin, rabbit: LD50 = >4640 mg/kg;

**Carcinogenicity:** Mercuric chloride - IARC: Group 3 (not classifiable) (Mercury inorganic compounds).  
Sodium phosphate dibasic - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
Sodium chloride - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
Water - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.  
Potassium dihydrogen orthophosphate - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

**Other:** See actual entry in RTECS for complete information.

### Section 12 - Ecological Information

**Other:** No information available.

### Section 13 - Disposal Considerations

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling.

### Section 14 - Transport Information

	IATA	IMO	RID/ADR
<b>Shipping Name:</b>	Not regulated as a hazardous material	Not regulated as a hazardous material	Not regulated as a hazardous material
<b>Hazard Class:</b>			
<b>UN Number:</b>			
<b>Packing Group:</b>			

USA RQ: CAS# 7558-79-4: 5000 lb final RQ; 2270 kg final RQ

### Section 15 - Regulatory Information

#### European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: Not available

Risk Phrases:

Safety Phrases:

WGK (Water Danger/Protection)

CAS# 7487-94-7: 3  
CAS# 7558-79-4: 1  
CAS# 7647-14-5: 0  
CAS# 7732-18-5: Not available  
CAS# 7778-77-0: 1

Canada

CAS# 7487-94-7 is listed on Canada's DSL List  
CAS# 7558-79-4 is listed on Canada's DSL List  
CAS# 7647-14-5 is listed on Canada's DSL List  
CAS# 7732-18-5 is listed on Canada's DSL List  
CAS# 7778-77-0 is listed on Canada's DSL List

**US Federal**

TSCA

CAS# 7487-94-7 is listed on the TSCA Inventory.  
CAS# 7558-79-4 is listed on the TSCA Inventory.  
CAS# 7647-14-5 is listed on the TSCA Inventory.  
CAS# 7732-18-5 is listed on the TSCA Inventory.  
CAS# 7778-77-0 is listed on the TSCA Inventory.

**Section 16 - Other Information**

**Text for R-phrases from Section 2**

**MSDS Creation Date:** 12/12/1997

**Revision #6 Date** 9/24/2004

*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 event shall the company 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 the company has been advised of the possibility of such damages.*

-----