

# MATERIAL SAFETY DATA SHEET

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Phosphate Buffer Saline  
**MSDS NUMBER:** 230099  
**GENERAL USE:** Buffer solution  
**PRODUCT DESCRIPTION:** Clear colorless liquid, odorless

**Thermo**  
ELECTRON CORPORATION

**MANUFACTURER'S NAME (Distributor in the Americas)**  
Thermo Electron Corporation  
**DATE PREPARED:** December 30, 2003  
**SUPERSEDES:** March 1, 2000  
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**ADDRESS (NUMBER, STREET, P.O. BOX)**  
171 Industry Drive  
**TELEPHONE NUMBER FOR INFORMATION**  
(412) 788-1133

**(CITY, STATE AND ZIP CODE)**                      **COUNTRY**  
Pittsburgh, PA 15275                                      USA  
**EMERGENCY TELEPHONE NUMBER**  
CHEM • TEL (800) 255-3924 Outside USA (813) 248-0585

**DISTRIBUTOR'S NAME (Outside the Americas)**  
Thermo Electron Corporation

**ADDRESS (NUMBER, STREET, P.O. BOX)**  
93/96 Chadwick Road, Astmoor  
**TELEPHONE NUMBER FOR INFORMATION**  
+44 (0) 1928 562547

**(CITY, STATE AND ZIP CODE)**                      **COUNTRY**  
Runcorn, Cheshire WA7 1PR                                      United Kingdom  
**EMERGENCY TELEPHONE NUMBER**  
CHEM • TEL (813) 248-0585

## SECTION 2 - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	% (by weight)	CAS #	EINECS #	Hazard Symbol	RISK PHRASES Full Text Section 16
Sodium phosphate, dibasic (DSP) ( a)	3 - 7	7558-79-4	231-448-7	NC	Not classified
Sodium chloride	10 - 30	7647-14-5	231-598-3	NC	Not classified
Potassium phosphate monobasic	1 - 5	7778-77-0	231-913-4	NC	Not classified

(a) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) has notification requirements for releases or spills to the environment of the Reportable Quantity (RQ for this mixture > 24000 lbs) or greater amounts, according to 40 CFR 302.

## SECTION 3 - HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Mild liquid, ingestion may cause gastric distress. Hazard symbols - not classified. Risk phrases - none.

### POTENTIAL HEALTH EFFECTS

**INHALATION:** None expected, however, certain individuals may experience minor nausea or headaches.

**SKIN:** None expected, however, prolonged contact may cause irritation.

**EYES:** Contact with eyes may cause irritation.

**INGESTION:** May cause gastric distress, vomiting and diarrhea.

**CARCINOGENICITY**                                      NTP?    No                      IARC MONOGRAPHS?    No                      OSHA REGULATED?    No

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**SECTION 4 - FIRST AID MEASURES**

**INHALATION:** Remove affected person to fresh air; if symptoms persist seek medical attention.

**SKIN:** Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

**EYES:** Remove contact lenses. Flush eyes with water for 15 minutes; if irritation persists, seek medical attention.

**INGESTION:** Give two glasses of water for dilution; DO NOT induce vomiting; never give anything by mouth to an unconscious person; seek medical attention.

**SECTION 5 - FIRE FIGHTING MEASURES**

**GENERAL HAZARDS:** Product is not considered flammable or combustible. Products of combustion include compounds of carbon, hydrogen, and oxygen, including carbon monoxide.

**EXTINGUISHING MEDIA**  
Carbon dioxide, water, water fog, dry chemical, chemical foam

**FIRE FIGHTING PROCEDURES**  
Keep containers cool with water spray to prevent container rupture due to steam buildup; floor will become slippery if material is released.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**  
None

**HAZARDOUS COMBUSTION PRODUCTS**  
Smoke, fumes, oxides of carbon

**SECTION 6 - ACCIDENTAL RELEASE MEASURES**

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** Small spills - wash to sanitary sewer with plenty of water. Large spills - soak up with approved absorbent, shovel product into approved container for disposal. Wash area with plenty of water.

**SECTION 7 - HANDLING AND STORAGE**

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures.

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

HAZARDOUS COMPONENTS	NIOSH				ACGIH			
	TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3	TWA ppm	TWA mg/m3	STEL ppm	STEL mg/m3
Sodium phosphate, dibasic (DSP) ( a)		Not established				Not established		
Sodium chloride		Not established				Not established		
Potassium phosphate monobasic		Not established				Not established		

**PERSONAL PROTECTION:**  
**RESPIRATORY PROTECTION (SPECIFY TYPE):** None required

**PROTECTIVE GLOVES:** None required

**EYE PROTECTION:** Recommended for general protection Refer to 29 CFR 1910.133 or European Standard EN166.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Safety eyebath nearby

**WORK / HYGIENIC PRACTICES:** Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.



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**SECTION 15 - REGULATORY INFORMATION**

**TSCA (USA - Toxic Substance Control Act)**

All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.

**SARA TITLE III (USA - Superfund Amendments and Reauthorization Act)**

311/312 Hazard Categories  
None

313 Reportable Ingredients:  
None

**CERCLA (USA - Comprehensive Response Compensation and Liability Act)**

(a) The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) has notification requirements for releases or spills to the environment of the Reportable Quantity (RQ for this mixture > 24000 lbs) or greater amounts, according to 40 CFR 302.

**CPR (Canadian Controlled Products Regulations)**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**IDL (Canadian Ingredient Disclosure List)**

Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 2.

**DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)**

Components of this product identified by CAS number are listed on the DSL or NDSL and may or may not be listed in Section 2 of this document. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.

**EINECS (European Inventory of Existing Commercial Chemical Substances)**

Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

**WGK Water Quality Index: nwg**

**RISK PHRASES:**  
None

**SYMBOL(S) REQUIRED FOR LABEL**

None

**SAFETY PHRASES:**  
S25 Avoid contact with eyes.

**SECTION 16 - OTHER INFORMATION**

Notes & full R-Phrase text

None

**HMIS HAZARD RATINGS**

HEALTH	1	0 = INSIGNIFICANT	3 = HIGH
FLAMMABILITY	0	1 = SLIGHT	4 = EXTREME
REACTIVITY	0	2 = MODERATE	
PERSONAL PROTECTIVE EQUIPMENT	A	Safety Glasses	

**REVISION SUMMARY:**

This MSDS has been revised in the following sections: No revisions available

MSDS Prepared by: Chem-Tel, Inc.  
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Tampa, Florida USA 33602 (800) 255-3924 Outside USA (813) 248-0573

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.