

Material Safety Data Sheet Issue Date: 1/9/2004
Section 1: Chemical Product and Company Identification
Cat#: 24200E

Part Name: PHOSPHATE CITRATE BUFFER 0.05M 5.0 PH
Supplier: Polysciences, Inc.
400 Valley Road
Warrington, PA 18976
Telephone #215-343-6484

Section 2: Composition/ Information on Ingredients

| Item # | Name | CAS# | % in product |
|--------|--------------------------------------|-----------|--------------|
| 1 | Citric acid | 000077929 | 1 |
| 2 | Sodium phosphate, dibasic, anhydrous | 007558794 | 0.7 |
| 3 | Water | 007732185 | 98 |

OSHA (ACGIH) Exposure Limits

| CAS# | IDHL | TWA | | STEL | | ppm | CEILING mg/m3 |
|-----------|--------|-----|-------|------|-------|-----|------------------|
| | | ppm | mg/m3 | ppm | mg/m3 | | |
| 000077929 | NE | | | | | | |
| | OSHA: | NE | NE | NE | NE | NE | NE |
| | ACGIH: | NE | NE | NE | NE | NE | NE |
| 007558794 | NE | | | | | | |
| | OSHA: | NE | NE | NE | NE | NE | NE |
| | ACGIH: | NE | NE | NE | NE | NE | NE |
| 007732185 | NE | | | | | | |
| | OSHA: | NE | NE | NE | NE | NE | NE |
| | ACGIH: | NE | NE | NE | NE | NE | NE |

Section 3: Hazards Identification

Low hazard for usual industrial or commercial handling.

Hazard Ratings:

These ratings are Polysciences' Inc. own assesments of the properties of the material using the ANSI/NFPA 704 Standard.

Additional information can be found by consulting in the NFPA published ratings lists (List 325 and List 49).

If no data is listed the information is not

| Health | Flammability | Reactivity |
|--------|--------------|------------|
| 0 | ----- 0 | ----- 0 |

Section 4: First Aid Measures

Contact medical personnel.

Flush eyes with flowing water for at least 15 minutes.

If swallowed, give 8 oz. of water or milk to drink. Never give anything by mouth to an unconscious person.

Separate eyelids with finger tips.

Wash skin with deluge of water for at least 15 minutes.

Section 5: Fire Fighting Measures

Flash point, deg F.: none Method:

UEL: no data LEL: no data Autoignition temperature, deg. F.: no data

Flammability no data Flame Propagation no data

Hazardous Combustion Products: no data

Section 6: Accidental Release Measures

Any information listed below is to be considered in addition to internal guidelines for isolation of spill, containment of spill, removal of ignition

sources from immediate area, and collection for disposal of spill by trained, properly protected clean up personnel.
No special measures are indicated.

Section 7: Handling and Storage
Store at 25 deg. C.

Section 8: Exposure Controls/ Personal Protection
The use of eye protection in the form of safety glasses with side shields and the use of skin protection for hands in the form of gloves are considered minimum and non-discretionary in work places and laboratories. Any recommended personal protection equipment or environmental equipment is to be considered as additional to safety glasses and gloves.
No special protection is indicated.

Section 9: Physical and Chemical Properties
Formula: mixture vapor pressure: as water
Formula Weight: nap vapor density: as water
boiling point: 212 Specific gravity: 1
melting point: 32 ph: 5
solubility: miscible appearance: clear colorless liquid

Section 10: Stability and Reactivity
Chemical stable
Conditions to Avoid: none
Incompatibility with other none
Hazardous Decomposition none
Hazardous will not occur

Section 11: Toxicological Information
Acute no data
Subchronic data: no data

Section 12: Ecological Information
no data

Section 13: Disposal Considerations
The following chart lists the status of the chemical and its components in reference to 40 CFR Part 261.33. If the product is listed by code number the substance may be subject to special federal and state disposal regulations. If no codes are listed the material must be disposed in compliance with all Federal, State and Local Regulations.

| CAS# | Waste Code | Regulated Name |
|-----------|------------|----------------|
| 000077929 | not listed | not listed |
| 007558794 | not listed | not listed |
| 007732185 | not listed | not listed |

Section 14: Transportation Data
Refer to bill of lading or container label for DOT or other transportation hazard classification , if any.

Section 15: Regulatory Information

Prop 65 - Column A identifies those items which are known to the State of California to cause cancer. Column B identified items which are known to the State of California to cause reproductive toxicity.

| CAS# | Column A | Column B |
|------|----------|----------|
|------|----------|----------|

| | | |
|-----------|----|----|
| 000077929 | no | no |
| 007558794 | no | no |
| 007732185 | no | no |

State Regulatory Information :If a CAS# is listed below this material is subject to the listed state right-to-know requirements.

CAS#

| | |
|-----------|------------|
| 000077929 | not listed |
| 007558794 | MA PA |
| 007732185 | not listed |

B

SARA Toxic Release Chemicals(as defined in Section 313 of SARA Title III)

This list identifies the toxic chemicals, including their de minimis concentrations for which reporting is required under Section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA). The list is also referred to as the Toxics Release Inventory (TRI) List.

| CAS# | Regulated Name | de minimis conc. | %Rep. Thres. |
|-----------|----------------|------------------|--------------|
| 000077929 | not listed | not listed | not listed |
| 007558794 | not listed | not listed | not listed |
| 007732185 | not listed | not listed | not listed |

SARA Extremely Hazardous Substances and TPQs

This list includes hazardous chemicals as defined in 29 CFR 1910.1200(c); and extremely hazardous substances regulated under Section 302 of SARA Title III with their TPQs (in pounds), as listed in 40 CFR 355, Appendices A and B.

| CAS# | Regulated Name | TPQ (pounds) | EHS-RQ(pounds) |
|-----------|----------------|--------------|----------------|
| 000077929 | not listed | not listed | not listed |
| 007558794 | not listed | not listed | not listed |
| 007732185 | not listed | not listed | not listed |

CERCLA

The hazardous substances, and their reportable quantities (RQs) are listed in the federal regulations at 40 CFR Part 302, Table 302.4. Release of a CERCLA hazardous substance in an amount equal to or greater than its RQ, in any 24-hour period, must be reported to the National Response Center at (800) 424-8802.

| CAS# | Regulated name | RQ pounds |
|-----------|----------------|------------|
| 000077929 | Not listed | Not listed |
| 007558794 | Not listed | Not listed |
| 007732185 | Not listed | Not listed |

Section 16: Other Information

POLYSCIENCES, INC. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. Individuals receiving this information must exercise their independent judgment in determining its appropriateness for a particular purpose. POLYSCIENCES, INC. makes no representations or warranties, either expressed or implied of merchantability, fitness for particular purposes with respect to the information set forth herein or to which the information refers. Accordingly, POLYSCIENCES, INC. will not be responsible for damages resulting from the use of or reliance upon this information.

END OF MSDS