

Buffer pH 4.0, Red

**Material Safety Data Sheet**

**Section 1. Product and Company Identification**

**Product Name** Buffer pH 4.0, Red

**Product Code** 34170-127

**Manufacturer** EMD Chemicals Inc.  
P.O. Box 70  
480 Democrat Road  
Gibbstown, NJ 08027

**Effective Date** 3/4/2003

Prior to January 1, 2003 EMD Chemicals Inc. was  
EM Industries, Inc. or EM Science, Division of  
EM Industries, Inc.

**For More Information Call**

856-423-6300 Technical Service  
Monday-Friday: 8:00 AM - 5:00 PM

**In Case of Emergency Call**

800-424-9300 CHEMTREC  
(USA)  
613-996-6666 CANUTEC  
(Canada)  
24 Hours/Day: 7 Days/Week

**Synonym** None.  
**Material Uses** Laboratory Reagent  
**Chemical Family** Solution.

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**+ Section 2. Composition and Information on Ingredients**

<b>Component</b>	<b>CAS #</b>	<b>% by Weight</b>
Potassium Hydrogen Phthalate	877-24-7	0-1
AMARANTH	915-67-3	0-1
WATER	7732-18-5	98-99
Dowacide A	132-27-4	0.05

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**+ Section 3. Hazards Identification**

**Physical State and Appearance** Liquid.

**Emergency Overview**

CAUTION !  
MAY BE HARMFUL IF INHALED OR SWALLOWED.  
MAY CAUSE EYE AND SKIN IRRITATION.  
WARNING: This product contains a chemical(s) known to the State of California to cause cancer.

**Routes of Entry** Ingestion.

**Potential Acute Health Effects**

**Eyes** May be hazardous in case of eye contact (irritant).  
**Skin** May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

**Inhalation** May be hazardous in case of inhalation.

**Ingestion** May be hazardous in case of ingestion.

**Potential Chronic Health Effects**

**Carcinogenic Effects** This material is not known to cause cancer in animals or humans.

**Effects**

Additional information See Toxicological Information (section 11)

**Medical Conditions Aggravated by Overexposure:** Repeated or prolonged exposure is not known to aggravate medical condition.

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#### Section 4. First Aid Measures

**Eye Contact** Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

**Skin Contact** In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

**Inhalation** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Ingestion** Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

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#### Section 5. Fire Fighting Measures

**Flammability of the Product** Non-flammable.

**Auto-ignition Temperature** Not applicable.

**Flash Points** Not applicable.

**Flammable Limits** Not applicable.

**Products of Combustion** Not applicable.

**Fire Hazards in Presence of Various Substances** Not applicable.

**Explosion Hazards in Presence of Various Substances** **Risks of explosion of the product in presence of static discharge:** No.  
**Risks of explosion of the product in presence of mechanical impact:** No.

**Fire Fighting Media and Instructions** Not applicable.

**Protective Clothing (Fire)** Not applicable.

**Special Remarks on Fire Hazards** Not available.

**Special Remarks on Explosion Hazards** Not available.

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#### Section 6. Accidental Release Measures

**Small Spill and Leak** Absorb with an inert material and put the spilled material in an appropriate waste disposal. If necessary: **Neutralize the residue with a dilute solution of sodium carbonate.**

**Large Spill and Leak** Absorb with an inert material and put the spilled material in an appropriate waste disposal. **Neutralize the residue with a dilute solution of sodium**

**carbonate.****Spill Kit  
Information**

No specific spill kit required for this product.

**Section 7. Handling and Storage****Handling**

Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapors or spray mists. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.

**Storage**

Keep container tightly closed. Keep container in a cool, well-ventilated area.

**Section 8. Exposure Controls/Personal Protection****Engineering  
Controls**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection****Eyes** Splash goggles.**Body** Lab coat.**Respiratory** Vapor respirator. Be sure to use an approved/certified respirator or equivalent.**Hands** Gloves.**Feet** Not applicable.**Protective Clothing  
(Pictograms)****Personal Protection in Case of a Large Spill** Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.**Product Name****Exposure Limits**

Potassium Hydrogen Phthalate	Not available.
AMARANTH	Not available.
WATER	Not available.
Dowacide A	Not available.

**Section 9. Physical and Chemical Properties****Odor**

Odorless.

**Color**

Clear. Red.

**Physical State and  
Appearance**

Liquid.

**Molecular Weight**

Not applicable.

**Molecular Formula**

Not applicable.

**pH**

4 [Acidic.]

**Boiling/Condensation Point** The lowest known value is 99.9°C (211.8°F) (Water).**Point****Melting/Freezing  
Point**

May start to solidify at -0.1°C (31.8°F) based on data for: Water.

**Specific Gravity**

Not available.

**Vapor Pressure**

Not available.

**Vapor Density**

Not available.

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<b>Odor Threshold</b>	Not available.
<b>Evaporation Rate</b>	0.36 (Water) compared to (n-BUTYL ACETATE=1)
<b>LogKow</b>	Not available.
<b>Solubility</b>	Very slightly soluble in water.

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### Section 10. Stability and Reactivity

<b>Stability and Reactivity</b>	The product is stable.
<b>Conditions of Instability</b>	Not available.
<b>Incompatibility with Various Substances</b>	Not available.
<b>Rem/Incompatibility</b>	Not available.
<b>Hazardous Decomposition Products</b>	
<b>Hazardous Polymerization</b>	Will not occur.

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### + Section 11. Toxicological Information

#### RTECS Number:

Potassium Hydrogen Phthalate	CZ4326000
Amaranth	QJ6550000
Water	ZC0110000
Dowicide A	DV7700000

<b>Toxicity</b>	LD50: Not available. LC50: Not available.
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<b>Chronic Effects on Humans</b>	Not available.
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<b>Acute Effects on Humans</b>	May be hazardous in case of eye contact (irritant). May be hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. May be hazardous in case of inhalation.
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<b>Synergetic Products (Toxicologically)</b>	Not available.
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<b>Irritancy</b>	Draize Test: Not available.
<b>Sensitization</b>	Not available.
<b>Carcinogenic Effects</b>	This material is not known to cause cancer in animals or humans.
<b>Toxicity to Reproductive System</b>	Not available.
<b>Teratogenic Effects</b>	Not available.
<b>Mutagenic Effects</b>	Not available.

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### Section 12. Ecological Information

<b>Ecotoxicity</b>	Not available.
<b>BOD5 and COD</b>	Not available.
<b>Toxicity of the Products of</b>	The products of degradation are less toxic than the product itself.

## Biodegradation

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### Section 13. Disposal Considerations

<b>EPA Waste Number</b>	Not available.
<b>Treatment</b>	Material does not have an EPA Waste number and is not a listed waste, however consultation with a permitted waste disposal site (TSD) should be accomplished. ALWAYS CONTACT A PERMITTED WASTE DISPOSER (TSD) TO ASSURE COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS.

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### Section 14. Transport Information

<b>DOT Classification</b>	Not available.
<b>TDG Classification</b>	Not available.
<b>IMO/IMDG Classification</b>	Not available.
<b>ICAO/IATA Classification</b>	Not available.

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### Section 15. Regulatory Information

<b>U.S. Federal Regulations</b>	TSCA 8(b) inventory: Potassium Hydrogen Phthalate; AMARANTH; Water; Dowacide A SARA 302/304/311/312 extremely hazardous substances: No products were found. SARA 302/304 emergency planning and notification: No products were found. SARA 302/304/311/312 hazardous chemicals: AMARANTH; Dowacide A SARA 311/312 MSDS distribution – chemical inventory – hazard identification: AMARANTH: Delayed (Chronic) Health Hazard; Dowacide A: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard Clean Water Act (CWA) 307: No products were found. Clean Water Act (CWA) 311: No products were found. Clean air act (CAA) 112 accidental release prevention: No products were found. Clean air act (CAA) 112 regulated flammable substances: No products were found. Clean air act (CAA) 112 regulated toxic substances: No products were found.
<b>WHMIS (Canada)</b>	Not controlled under WHMIS (Canada). CEPA DSL: Potassium Hydrogen Phthalate; AMARANTH; Water; Dowacide A This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations and the MSDS contains all required information.
<b>International Regulations</b>	
<b>EINECS</b>	Potassium Hydrogen Phthalate 212–889–4 AMARANTH 213–022–2 Water 231–791–2

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Dowacide A 205–055–6

**DSCL (EEC)** This product is not classified according to the EU regulations.  
**International** Australia (NICNAS): Potassium Hydrogen Phthalate; AMARANTH;  
**Lists** Water; Dowacide A

Japan (MITI): Potassium Hydrogen Phthalate; AMARANTH; Water;  
Dowacide A

Japan (MOL): Dowacide A

Korea (TCCL): Potassium Hydrogen Phthalate; Water; Dowacide A

Philippines (RA6969): Potassium Hydrogen Phthalate; AMARANTH;  
Water; Dowacide A

China: No products were found.

**State Regulations** Massachusetts RTK: Dowacide A

New Jersey: Buffer pH 4.0, Red

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: AMARANTH; Dowacide A

California prop. 65 (no significant risk level): AMARANTH; Dowacide A

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would

require a warning under the statute: AMARANTH; Dowacide A

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### Section 16. Other Information

<b>National Fire</b>	<b>0</b>	<b>Fire</b>
<b>Protection</b>	<b>20</b>	<b>Hazard</b>
<b>Association</b>	<b>Health</b>	<b>Reactivity</b>
<b>(U.S.A.)</b>		<b>Specific</b>
		<b>Hazard</b>

**Changed Since Last** +  
**Revision**

#### **Notice to Reader**

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