

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product Identifier**

Product Name pH 4.01 Buffer, Red
Product Number(s) 00654-00, 05942-21, 05942-10, 05942-22, 05942-24, 05942-25, 05942-15, 00653-08, 00653-14, 00651-06, 00651-36, 00651-76, 98767-77, 98767-80
This SDS applies to pH 4.01 buffers with Lot # starting with CC.
Pure Substance/mixture Mixture

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Use as laboratory reagent
Uses advised against No information available

Manufacture/Supplier

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Made In USA

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2. HAZARDS IDENTIFICATION**Classification**

Classification - Mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

Classification according to EU Directives 67/548/EEC or 1999/45/EC

For the full text of the R-phrases and H-Statements mentioned in this Section, see Section 16.

Symbol(s)

Not dangerous goods.

Label Elements**Emergency Overview**

The product contains no substances which at their given concentration, are considered hazardous to health.

Appearance Light Red

Physical State Liquid

Odor None

EUH210 - Safety data sheet available upon request.

Precautionary Statements

P202 - Do not handle until all safety information has been read and understood.

Hazards not otherwise classified (HNOC)

No information available

Other Information

No information available

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Chemical Formula | EC-No. | CAS-No | Weight % | Trade Secret |
|--------------------------|------------------|-----------|-----------|----------|--------------|
| Water | - | - | 7732-18-5 | 90-100 % | * |
| Potassium Acid Phthalate | - | 212-889-4 | 877-24-7 | 0-10 % | * |
| Cetylpyridinium Chloride | C21 H38 NCl | 204-593-9 | 123-03-5 | 0-10 % | * |
| Methyl Red Solution 0.1% | - | - | 845-10-3 | 0-10 % | * |

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURESFirst Aid Measures

General Advice

Use first aid treatment according to the nature of the injury. For further assistance, contact your local Poison Control Center. Show this safety data sheet to the doctor in attendance.

Eye Contact

In case of eye contact, remove contact lens and rinse thoroughly with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothing and shoes. If skin reactions occur, contact a physician.

Inhalation

Move to fresh air. If breathing is difficult, give oxygen. If symptoms persist, obtain medical attention.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Do not include vomiting. Call a physician or Poison Control Center immediately.

Production of First-Aiders

Use personal protective equipment. See Section 8 for more detail. Do not use mouth to mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical devices.

Most important symptoms and effects, both acute and delayed

Most important symptoms/effects No information available

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically

5. FIRE-FIGHTING MEASURESSuitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available

Specific Hazards Arising from the Chemical

Thermal decomposition can lead to release of irritating gases and vapors.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURESPersonal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions

Use personal protective equipment. Refer to Section 8. Evacuate personnel to safe areas.

Environmental Precautions

Beware of vapors accumulating to form explosives concentrations. Vapors can accumulate in low areas.

Method and Material for Containment and Cleaning Up

Methods for Containment

Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Soak up with inert absorbent material. Pick up and transfer to properly labeled containers.

7. HANDLING AND STORAGE

Precautions for Safe Handling

Handling To avoid risks to human health and the environment, comply with the instructions for use. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapors/spray. Ensure adequate ventilation, especially in confined areas.

Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

Conditions for Safe Storage, Including any Incompatibilities

Storage Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Keep away from direct sunlight.

Incompatible Products No information available.

Specific end use(s)

Specific use Laboratory reagent

Risk Management Methods (RMM) The information required is contained in this Safety Data Sheet.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by the region-specific regulatory bodies.

Appropriate Engineering Controls

Engineering Measures Showers
Eyewash stations
Ventilation systems

Individual protection measures, such as personal protective equipment

Eye/face Protection Wear chemical splash goggles. If splashes are likely to occur, wear: Face-shield.

Skin and Body Protection Wear protection gloves/clothing

Respiratory Protection None required under normal usage. In case of inadequate ventilation wear respiratory protection.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties.

Physical State Liquid
Appearance Light red
Odor None
Odor Threshold No information available
pH Range 3.51-5.51

Property

Values

Remarks * Method

| | | |
|------------------------------|--------------------------|--|
| Melting point/freezing point | No information available | |
| Boiling Point/Range | ~ 100 °C / 212 °F | |
| Flash Point (High in °C) | No information available | |
| Evaporation Rate | No information available | |
| Flammability (solid, gas) | No information available | |
| Flammability Limit in Air | | |
| Upper flammability limit: | No information available | |
| Lower flammability limit: | No information available | |
| Vapor pressure | No information available | |
| Vapor Density | No information available | |

| | |
|------------------------------|--------------------------|
| Specific Gravity | No information available |
| Water Solubility | soluble |
| Solubility in other solvents | No information available |
| Partition coefficient | No information available |
| Autoignition Temperature | |
| Decomposition Temperature | No information available |
| Kinematic Viscosity | No information available |
| Dynamic Viscosity | No information available |
| Explosive Properties | No information available |
| Oxidizing Properties | No information available |

Other Information

| | |
|------------------|--------------------------|
| Softening Point | No information available |
| Molecular Weight | No information available |
| VOC Content (%) | No information available |
| Density | No information available |
| Bulk Density | No information available |

10. STABILITY AND REACTIVITY**Reactivity**

No information available

Chemical Stability

Stable under normal conditions

Possibility of Hazardous Reactions

None under normal processing

Conditions to Avoid

Extremes of temperature and direct sunlight

Incompatible Materials

No information available

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors.

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

| | |
|---------------------|--------------------------|
| Inhalation | No information available |
| Eye Contact | No information available |
| Skin Contact | No information available |
| Ingestion | No information available |

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|-----------------------------------|---------------------|-------------|--------------------------|
| Water 7732-18-5 | >90 mL/kg (Rat) | - | - |
| Cetylpyridinium Chloride 123-03-5 | LD50 200mg/kg (rat) | - | LC50/4 H 0.05 mg/L (ATE) |

Information on Toxicological Effects

Symptoms No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|---------------------------------|--------------------------|
| Sensitization | No information available |
| Mutagenic Effects | No information available |
| Carcinogenicity | No information available |
| Reproductive Effects | No information available |
| STOT – single exposure | No information available |
| STOT – repeated exposure | No information available |
| Aspiration hazard | No information available |

12. ECOLOGICAL INFORMATION**Ecotoxicity**

This material is not expected to be harmful to aquatic life.

Persistence and Degradability

No information available

Bioaccumulation/Accumulation

No information available

Mobility

No information available

Results of PBT and vPvB assessment

No information available

Other adverse effects

No information available

Endocrine Disruptor Information

No information available

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods****Waste Disposal Methods**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Do not discharge to sewer.

Contaminated Packaging

Improper disposal or reuse of this container may be dangerous and illegal.

14. TRANSPORT INFORMATION

| | |
|----------|---------------|
| DOT | Not regulated |
| TDG | Not regulated |
| MEX | Not regulated |
| ICAO | Not regulated |
| IATA | Not regulated |
| IMDG/IMO | Not regulated |
| RID | Not regulated |
| ADR | Not regulated |
| ADN | Not regulated |

15. REGULATORY INFORMATION**European Union**

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

International Inventories

| | |
|---------------|------------------|
| USINV | Component listed |
| CANINV | Component listed |
| EINECS/ELINCS | Component listed |
| IECSC | Component listed |
| AICS | Component listed |

USINV/TSCA – United States Toxic Substances Control Act Section 8(b) Inventory

CANINV/DSL/NDSL – Canadian Domestic Substances List/Non-Domestic Substance List

EINECS/ELINCS – European Inventory of Existing Commercial Chemical Substance / EU List of Notified Chemical Substances

IECSC – Chinese Inventory of Existing Chemical Substances

AICS – Australian Inventory of Chemical Substances

U.S. Federal Regulations

This product is not known to be a “Hazardous Chemical” as defined by the OSHA Hazardous Communication Standard, 29 CFR 1910.1200.

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

| | |
|-----------------------------------|----|
| Acute Health Hazard | No |
| Chronic Health Hazard | No |
| Fire Hazard | No |
| Sudden Release of Pressure Hazard | No |
| Reactive Hazard | No |

Clean Water Act

Not applicable

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to releases of this material.

U.S. State Regulations

California Proposition 65

This product is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

State Right-to-Know

| | | |
|--|------------------------------|--------------|
| Massachusetts Right-to-Know Act – Substance List | Not regulated | |
| New Jersey Worker and Community Right-to-Know Act | Potassium hydrogen phthalate | CAS 877-24-7 |
| Pennsylvania Right-to-Know Act – Hazardous Substance | Potassium hydrogen phthalate | CAS 877-24-7 |
| Rhode Island Right-to-Know Act | Not regulated | |

U.S. EPA Label Information

No information available

16. OTHER INFORMATION

Revision Date: 15-May-2026

Disclaimer:

IMPORTANT: The information contained in this SDS is correct to the best of our knowledge as of the issue date (or subsequent revision date, if any), and is to be used only as a guide. This SDS does not constitute a guarantee (express or implied) of any kind and we make no warranties of any kind as to the accuracy or completeness of the information contained herein or the merchantability or fitness of the product or this information for a particular purpose. It is the responsibility of each individual buyer/user to determine the suitability of this information and the product for its intended purposes. Product sales are subject to Cole Parmer standard terms and conditions of sale. This information relates only to the designated product as shipped and may not be valid if the product is used in combination with any other materials or is not used in accordance with our instructions, or is altered in any way. It is the responsibility of the buyer/user to ensure that its activities comply with all applicable government requirements. Since conditions of use of the product are not under direct control of Cole Parmer, it is the duty of the buyer/user to determine the necessary conditions for the safe use of the product. Cole Parmer will not be liable for any injuries or damages resulting from handling, use, misuse or contact with the product.