SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers
Product Name : StockOptions™ pH
Product Number : HR2-241
Product type : Liquid
REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses : For research use only. Not for drug, household, or other use.

1.3 Details of the supplier of the Safety Data Sheet
Company : Hampton Research
           34 Journey
           Aliso Viejo, CA 92656-3317
           United States
Telephone : 949 425 1321
           Telephone technical support is available 8:00 a.m. to 4:30 p.m. USA Pacific Standard Time.
Fax : 949 425 1611
      Fax Technical Support is available 24 hours a day.
e-mail : tech@hrmail.com
         e-mail Technical Support is available 24 hours a day.

1.4 Emergency telephone number
Emergency phone : 949 425 1321
For CHEMTREC Assistance : 800 424 9300
For CHEMTREC Assistance : 703 527 3887 (International)

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]
see SECTION 16

Classification according to EU Directives 67/548/EEC or 1999/45/EC
see SECTION 16

Additional information:
Relevant R-phrase(s), S-phrase(s), GHS pictogram(s), Hazard statement(s), and Precautionary statement(s) please see SECTION 16
(CONTINUED) - SECTION 2: Hazards Identification

2.2 Label elements
   Hazard pictogram : Not applicable
   Signal word : Not applicable
   Hazard statement(s) : Not applicable
   Precautionary statement(s) : Not applicable
   Supplemental Hazard Statements : Not applicable

2.3 Other hazards : none

SECTION 3: Composition/information on ingredients

3.1 Substances

Citric acid - Reagents 1-9
   Synonyms : Citric acid anhydrous
   Formula : C₆H₈O₇
   Molecular Weight : 192.13
   CAS Number : 77-92-9
   EC Number : 201-069-1

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Sodium acetate trihydrate - Reagents 10-14
   Synonyms : Acetic acid sodium salt trihydrate
   Formula : C₂H₃NaO₂ • 3H₂O
   Molecular Weight : 136.08
   CAS Number : 6131-90-4
   EC Number : 204-823-8

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Sodium citrate tribasic dihydrate - Reagents 15-19
   Synonyms : Citric acid trisodium salt dihydrate or Trisodium citrate dihydrate
   Formula : C₆H₅Na₃O₇ • 2H₂O
   Molecular Weight : 294.10
   CAS Number : 6132-04-3
   EC Number : 200-675-3

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## SECTION 3: Composition/information on ingredients

### Sodium cacodylate trihydrate - Reagents 20-24

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### HEPES sodium - Reagents 25-29

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### TRIS hydrochloride - Reagents 30-34

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### CAPSO - Reagents 35-39

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SECTION 4: First Aid Measures

4.1 Description of first aid measures
General Advice - Consult a physician. Show this safety data sheet to the doctor in attendance.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact - Wash off with soap and plenty of water. Consult a physician.
In case of eye contact
Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
If swallowed
Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

4.3 Indication of any immediate medical attention and special treatment needed
Notes to physician
Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

Specific treatments - No specific treatment.

SECTION 5: Fire Fighting Measures

5.1 Extinguishing media
Suitable extinguishing media - Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media - None known

5.2 Special hazards arising from the substance or mixture
No data available

5.3 Advice for firefighters
Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further Information
No data available
SECTION 6: Accidental Release Measures

6.1 Personal Precautions
Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Avoid breathing dust.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections
For disposal see SECTION 8 and 13.

SECTION 7: Handling and Storage

7.1 Personal Precautions
Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. See Section 8 for additional information on hygiene measures. For precautions see section 16.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end uses
A part from the uses mentioned in section 1.2 no other specific uses are stipulated.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control parameters
Components with workplace control parameters
Consult a physician. Show this safety data sheet to the doctor in attendance.

8.2 Exposure controls
Appropriate engineering controls
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment
Eye/face protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body Protection
Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental Exposure Controls
See SECTION 6

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

a) Appearance Clear, Colorless
b) Odor no data available
c) Odor Threshold no data available
d) pH no data available
e) Melting point/freezing point no data available
f) Initial boiling point and boiling range no data available
g) Flash point no data available
h) Evaporation rate no data available
i) Flammability (solid, gas) no data available
j) Upper/lower flammability or explosive limits no data available
k) Vapor pressure no data available
l) Vapor density no data available
m) Relative density no data available
n) Water solubility no data available
o) Partition coefficient: noctanol/water no data available
p) Autoignition temperature no data available
q) Decomposition temp no data available
r) Viscosity no data available
s) Explosive properties no data available
t) Oxidizing properties no data available
9.2 Other safety information

- Surface tension: no data available
- Relative vapour density: no data available

SECTION 10: Stability and Reactivity

10.1 Reactivity
No data available

10.2 Chemical stability
No data available

10.3 Possibility of hazardous reactions
No data available

10.4 Conditions to avoid
No data available

10.5 Incompatible materials
No data available

10.6 Hazardous decomposition products
Other decomposition products - no data available

SECTION 11: Toxicological Information

11.1 Information on toxicological effects

- Acute toxicity: no data available
- Skin / irritation and corrosion: no data available
- Serious eye damage / eye irritation: no data available
- Respiratory or skin sensitization: no data available
- Germ cell mutagenicity: no data available
- Reproductive toxicity: no data available

Chronic exposure

- IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
(CONTINUED) - SECTION 11: Toxicological Information

Specific target organ toxicity - single exposure  
no data available

Specific target organ toxicity - repeated exposure  
no data available

Aspiration hazard  
no data available

Signs and Symptoms of Exposure
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Additional information  
no data available

SECTION 12: Ecological Information

12.1 Toxicity  
no data available

12.2 Persistence and degradability  
no data available

12.3 Bioaccumulative potential  
no data available

12.4 Mobility in soil  
no data available

12.5 Results of PBT and vPvB assessment  
no data available

12.6 Other adverse effects  
no data available

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Product
Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.
**SECTION 14: Transportation Information**

14.1 UN number  
ADR/RID: 3316  
IMDG: 3316  
IATA: 3316

14.2 UN proper shipping name  
ADR/RID: CHEMICAL KIT  
IMDG: CHEMICAL KIT  
IATA: Chemical kit

14.3 Transport hazard class(es)  
ADR/RID: -  
IMDG: -  
IATA: -

14.4 Packaging group  
ADR/RID: -  
IMDG: -  
IATA: -

14.5 Environmental hazards  
ADR/RID: No  
IMDG Marine pollutant: No  
IATA: No

14.6 Special precautions for user  
No data available

**SECTION 15: Regulatory Information**

This safety data sheet complies with the requirements of Regulation (EC) No 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture  
No data available

15.2 Chemical Safety Assessment  
No data available

**SECTION 16: Other Information**

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<th>Kit Components</th>
<th>Substance Name</th>
<th>[CAS]</th>
<th>R-Phrase</th>
<th>S-Phrase</th>
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</table>
Relevant R-phrase(s), S-phrase(s), GHS Pictogram(s), Hazard statement(s), and Precautionary statement(s)

Risk Phrase(s)
- R 23/25 : Toxic by inhalation and if swallowed
- R 36 : Irritating to the eyes
- R 40 : Limited evidence of a carcinogenic effect
- R 50/53 : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Safety Phrase(s)
- S 20/21 : When using, do not eat, drink or smoke
- S 26 : After contact with skin, wash immediately with plenty of soap and water
- S 28 : Wear suitable protective clothing and seek medical advice
- S 45 : In case of an accident or if you feel unwell, seek medical advice immediately (show label where possible)
- S 60 : This material and/or its container must be disposed of as hazardous waste
- S 61 : Avoid release to the environment. Refer to special instructions safety data sheet.

GHS Pictogram
- GHS06 : Acute Toxicity
- GHS07 : Acute toxicity
- GHS08 : Health Hazard
- GHS09 : Hazardous to aquatic environment

Hazard statement(s)
- H301 + H331 : Toxic in contact with skin or if inhaled.
- H319 : Causes serious eye irritation.
- H351 : Suspected of causing cancer.
- H410 : Very toxic to aquatic life with long lasting effects.

Precautionary statement(s)
- P261 : Avoid breathing dust/fume/gas/mist/vapors/spray.
- P273 : Avoid release to the environment.
- P281 : Use personal protective equipment as required.
- P301 + P310 : IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P311 : Call a POISON CENTER or doctor/physician.
- P501 : Dispose of contents/container to a licensed company.
(CONTINUED) - SECTION 16: Other Information

DISCLAIMER

• For R&D use only. Not for drug, household, or other use.

WARRANTY

• The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of this product. Hampton Research Corp., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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