

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifiers**

Product Name : StockOptions™ pH Individual Reagents
Product Number : HR2-941-**
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	: $C_6H_8O_7$
Molecular Weight	: 192.13
CAS Number	: 77-92-9
EC Number	: 201-069-1

RTECS	Merck	Beilstein	SARA	MDL #	PubChem Substance ID
GE7350000	14,2326	782061	No	MFCD00011669	24856611

Sodium acetate trihydrate - Reagents 10-14	
Synonyms	: Acetic acid sodium salt trihydrate
Formula	: $C_2H_3NaO_2 \cdot 3H_2O$
Molecular Weight	: 136.08
CAS Number	: 6131-90-4
EC Number	: 204-823-8

RTECS	Merck	Beilstein	SARA	MDL #	PubChem Substance ID
AJ4580000	14,8571	3732037	No	MFCD00071557	24886015

Sodium citrate tribasic dihydrate - Reagents 15-19	
Synonyms	: Citric acid trisodium salt dihydrate or Trisodium citrate dihydrate
Formula	: $C_6H_5Na_3O_7 \cdot 2H_2O$
Molecular Weight	: 294.10
CAS Number	: 6132-04-3
EC Number	: 200-675-3

RTECS	Merck	Beilstein	SARA	MDL #	PubChem Substance ID
N/A	14,8602	6104939	No	MFCD00150031	N/A

(CONTINUED) - SECTION 3: Composition/information on ingredients**Sodium cacodylate trihydrate - Reagents 20-24**

Synonyms	: Cacodylic acid sodium salt trihydrate or Dimethylarsinic acid sodium salt or Dimethylarsonic acid sodium salt
Formula	: C ₂ H ₆ AsNaO ₂ • 3H ₂ O
Molecular Weight	: 214.03
CAS Number	: 6131-99-3
EC Number	: 204-708-2

RTECS	Merck	Beilstein	SARA	MDL #	PubChem Substance ID
CH7890000	14,8595	3702348	No	MFCD00149079	24892242

HEPES sodium - Reagents 25-29

Synonyms	: HEPES sodium salt, or 4-(2-hydroxyethyl)piperazine-1-ethanesulfonic acid sodium salt, or N-(2-hydroxyethyl)piperazine-N'-(2-ethanesulfonic acid) sodium salt
Formula	: C ₈ H ₁₇ N ₂ NaO ₄ S
Molecular Weight	: 260.29
CAS Number	: 75277-39-3
EC Number	: 278-169-7

RTECS	Merck	Beilstein	SARA	MDL #	PubChem Substance ID
N/A	N/A	N/A	No	MFCD00036463	24895780

TRIS hydrochloride - Reagents 30-34

Synonyms	: HEPES sodium salt, or 4-(2-hydroxyethyl)piperazine-1-ethanesulfonic acid sodium salt, or N-(2-hydroxyethyl)piperazine-N'-(2-ethanesulfonic acid) sodium salt
Formula	: C ₄ H ₁₁ NO ₃ • HCl
Molecular Weight	: 157.60
CAS Number	: 1185-53-1
EC Number	: 214-684-5

RTECS	Merck	Beilstein	SARA	MDL #	PubChem Substance ID
N/A	N/A	3675235	No	MFCD00012590	24900398

CAPSO - Reagents 35-39

Synonyms	: CAPSO Free Acid : 3-(Cyclohexylamino)-2-hydroxy-1-propanesulfonic acid
Formula	: C ₉ H ₁₉ NO ₄ S
Molecular Weight	: 237.32
CAS Number	: 73463-39-5
EC Number	: N/A
Index Number	: N/A

RTECS	Merck	Beilstein	SARA	MDL #	PubChem Substance ID
N/A	N/A	5939234	No	MFCD00041778	24892483

(CONTINUED) - SECTION 3: Composition/information on ingredients

CAPS - Reagents 40-45

Synonym	: 3-(Cyclohexylamino)-1-propanesulfonic acid
Formula	: C ₉ H ₁₉ NO ₃ S
Molecular Weight	: 221.32
CAS Number	: 1135-40-6
EC Number	: 214-492-1
Index Number	: N/A

RTECS	Merck	Beilstein	SARA	MDL #	PubChem Substance ID
TZ6395000	N/A	2835588	No	MFCD00003837	24892833

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).

(CONTINUED) - SECTION 8: Exposure Controls/Personal Protection

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

(CONTINUED) - SECTION 9: Physical and Chemical Properties

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

Kit Components							
Substance Name	[CAS]	R-Phrase	S-Phrase	GHS Pictogram	Hazard Statement	Precautionary Statement	WKG
CAPS	1135-40-6						3
CAPSO	73463-39-5						3
Citric acid	77-92-9	36	26	GHS07	H319	P305 + P351 + P338	1
HEPES sodium	75277-39-3						3
Sodium acetate trihydrate	6131-90-4						1
Sodium cacodylate trihydrate	6131-99-3	23/25-40-50/53	20/21-28-45-60-61	GHS06, GHS08, GHS09	H301 + H331-H351-H410	P261-P273-P281-P301 + P310-P311-P501	3
Sodium citrate tribasic dihydrate	6132-04-3						1
TRIS hydrochloride	1185-53-1						1

(CONTINUED) - SECTION 16: Other Information

Relevant R-phrases, S-phrases, 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 |  | GHS08 : Health Hazard |  |
| GHS07 : Acute toxicity |  | 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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