

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

Product Name : PEG/Ion HT™ Crystallization Kit  
Product Number : HR2-139  
Product Type : Liquid  
Product Brand : Hampton Research  
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 : Laboratory chemicals, Manufacture of substances.

**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)

**This is a summary SDS for a kit, for the full SDS for each of the components listed in section 16 please visit our website.**

**SECTION 2: Hazards Identification****2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]**

For the full text of H-Statements: see SECTION 16

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

see SECTION 16

**Additional information:**

For full text of R-phrases: 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

#### According to European Directive 67/548/EEC as amended.

Hazard symbol(s)	: Not applicable
R-phrase(s)	: Not applicable
S-phrase(s)	: Not applicable

### 2.3 Other hazards : none

## SECTION 3: Composition/information on ingredients

Refer to component SDS

## SECTION 4: First Aid Measures

Refer to component SDS

## SECTION 5: Fire Fighting Measures

Refer to component SDS

## 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

No data available

## 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

No data available

## SECTION 10: Stability and Reactivity

Refer to component SDS

## SECTION 11: Toxicological Information

Refer to component SDS

## SECTION 12: Ecological Information

Refer to component SDS

## 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: 9

IMDG: 9

IATA: 9

### 14.4 Packaging group

ADR/RID: III

IMDG: III

IATA: III

### 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
Ammonium acetate	631-61-8	36/37/38	26		H315-H319-H335	P261-P305 + P351 + P338	1
Ammonium chloride	12125-02-9	22-36	22	GHS07	H302-H319	P305 + P351 + P338	1
Ammonium citrate dibasic	3012-65-5	36/37	26	GHS07	H319-H335	P261-P305 + P351 + P338	3
Ammonium fluoride	12125-01-8	23/24/25	26-45	GHS06	H301-H311-H331	P261-P280-P301 + P310-P311	3
Ammonium formate	540-69-2	36/37/38	26-36	GHS07	H315-H319-H335	P261-P305 + P351 + P338	1
Ammonium iodide	12027-06-4	36/37/38	26	GHS07	H315-H319-H335	P261-P305 + P351 + P338	3
Ammonium nitrate	6484-52-2	8-36/37/38	17-26-36		H272-H315-H319-H335	P220-P261-P305 + P351 + P338	1
Ammonium phosphate dibasic	7783-28-0	36/37/38	26-36	GHS07	H315-H319-H335	P261-P305 + P351 + P338	1
Ammonium phosphate monobasic	7722-76-1						1
Ammonium sulfate	7783-20-2				H412		1
Ammonium tartrate dibasic	3164-29-2						3
BIS-TRIS	6976-37-0	36/37/38	26-36	GHS07	H315-H319-H335	P261-P305 + P351 + P338	3
BIS-TRIS propane	64431-96-5						3
Cadmium chloride hydrate	654054-66-7	45-46-60-61-25-26-48/23/25-50/53	53-45-60-61	GHS06, GHS08, GHS09	H301-H330-H340-H350-H360FD-H372-H410	P201-P260-P273-P284-P301 + P310-P310	3
Calcium acetate hydrate	654054-66-7	36/37/38	26	GHS07	H315-H319-H335	P261-P305 + P351 + P338	1
Calcium chloride dihydrate	10035-04-8	36	22-24	GHS07	H319	P305 + P351 + P338	1
Cesium chloride	7647-17-8						2
Citric acid	77-92-9	36	26	GHS07	H319	P305 + P351 + P338	1
Cobalt(II) chloride hexahydrate	7791-13-1	49-60-22-42/43-50/53-68	53-45-60-61	GHS07, GHS08, GHS09	H302-H317-H334-H341-H350i-H360F-H410	P201-P261-P273-P280-P308 + P313-P501	3
DL-Malic acid	6915-15-7	22-37/38-41	26-36/39	GHS05, GHS07	H302-H315-H318-H335	P261-P280-P305 + P351 + P338	3
HEPES	7365-45-9						1

**(CONTINUED) - SECTION 16: Other Information**

<b>Kit Components</b>							
<b>Substance Name</b>	<b>[CAS]</b>	<b>R-Phrase</b>	<b>S-Phrase</b>	<b>GHS Pictogram</b>	<b>Hazard Statement</b>	<b>Precautionary Statement</b>	<b>WKG</b>
HEPES sodium	75277-39-3						3
Lithium acetate dihydrate	6108-17-4						1
Lithium chloride	7447-41-8	22-36/37/38	26-36/37/39		H302-H315-H319-H335	P261-P305 + P351 + P338	3
Lithium citrate tribasic tetrahydrate	6080-58-6	36/37/38	26-36		H315-H319-H335	P261-P305 + P351 + P338	1
Lithium nitrate	7790-69-4	45-8	53-22-24/25-45		H272-H350	P201-P220-P308 + P313	3
Lithium sulfate monohydrate	10102-25-7	22			H302		1
Magnesium acetate tetrahydrate	16674-78-5						3
Magnesium chloride hexahydrate	7791-18-6						1
Magnesium formate dihydrate	557-39-1						3
Magnesium nitrate hexahydrate	13446-18-9	8			H272	P220	1
Magnesium sulfate heptahydrate	10034-99-8						1
Malonic Acid	141-82-2						3
Nickel(II) chloride hexahydrate	7791-20-0	49-61-23/25-38-42/43-48/23-50/53-68	53-45-60-61	GHS06, GHS08, GHS09	H301-H315-H317-H331-H334-H341-H350i-H360-H372-H410	P201-P261-P273-P280-P301 + P310-P311	3
Polyethylene glycol 3,350	25322-68-3						1
Potassium acetate	127-08-2						1
Potassium chloride	7447-40-7						1
Potassium citrate tribasic monohydrate	6100-05-6						1
Potassium fluoride	7789-23-3	23/24/25	36/37-45	GHS06	H301-H311-H331	P261-P280-P301 + P310-P311	1
Potassium formate	590-29-4						2
Potassium iodide	7681-11-0	22-36/38	26	GHS07	H302-H315-H319	P305 + P351 + P338	1
Potassium nitrate	7757-79-1	8		GHS03	H272	P220	1
Potassium phosphate dibasic	7758-11-4						3
Potassium phosphate monobasic	7778-77-0						2
Potassium sodium tartrate tetrahydrate	6381-59-5						3
Potassium sulfate	7778-80-5						1
Potassium thiocyanate	333-20-0	20/21/22-32-52/53	13-36/37-46-61	GHS07	H302-H312-H332-H412	P273-P280	1
Sodium acetate trihydrate	6131-90-4						1
Sodium bromide	7647-15-6						1
Sodium chloride	7647-15-6						1
Sodium citrate tribasic dihydrate	6132-04-3						1
Sodium fluoride	7681-49-4	25-32-36/38	22-36-45		H301-H315-H319	P301 + P310-P305 + P351 + P338	1

**(CONTINUED) - SECTION 16: Other Information**

<b>Kit Components</b>							
<b>Substance Name</b>	<b>[CAS]</b>	<b>R-Phrase</b>	<b>S-Phrase</b>	<b>GHS Pictogram</b>	<b>Hazard Statement</b>	<b>Precautionary Statement</b>	<b>WKG</b>
Sodium formate	141-53-7						1
Sodium iodide	7681-82-5	36/38-50	26-61		H315-H319-H400	P273-P305 + P351 + P338	1
Sodium nitrate	7631-99-4	8-22-36/37/38	17-26		H272-H302-H315-H319-H335	P220-P261-P305 + P351 + P338	3
Sodium phosphate dibasic dihydrate	10028-24-7						1
Sodium phosphate monobasic monohydrate	10049-21-5						1
Sodium sulfate decahydrate	7727-73-3						1
Sodium tartrate dibasic dihydrate	6106-24-7						3
Sodium thiocyanate	540-72-7	20/21/22-32-52/53	13-36/37-46-61		H302-H312-H332-H412	P273-P280	1
Succinic acid	110-15-6	37/38-41	26-36/37/39	GHS05	H315-H318-H335	P261-P280-P305 + P351 + P338	1
Tacsimate™							
Tris	77-86-1	36/37/38	26-36		H315-H319-H335	P261-P305 + P351 + P338	2
Tryptone	91079-40-2						3
Zinc acetate dihydrate	5970-45-6	22-36-50/53	26-60-61	GHS07, GHS09	H302-H319-H400	P273-P305 + P351 + P338	3
Zinc chloride	7646-85-7	22-34-50/53	26-36/37/39-45-60-61	GHS05, GHS07, GHS09	H302-H314-H410	P273-P280-P305 + P351 + P338-P310-P501	3

**Relevant R-phrase(s), S-phrase(s), Hazard code(s), Hazard statement(s), and Precautionary statement(s)**  
**Risk Phrase(s)**

- R 8 : Contact with combustible material may cause fire
- R 20/21/22 : Harmful by inhalation, in contact with skin and if swallowed
- R 22 : Harmful if swallowed
- R 23/25 : Toxic by inhalation and if swallowed
- R 23/24/25 : Toxic by inhalation, in contact with skin and if swallowed
- R 25 : Toxic if swallowed
- R 26 : Very Toxic by inhalation
- R 32 : Contact with acids liberates very toxic gas
- R 34 : Causes burns
- R 36 : Irritating to the eyes
- R 36/37 : Irritating to eyes and respiratory system
- R 36/38 : Irritating to eyes and skin
- R 37/38 : Irritating to respiratory system and skin
- R 36/37/38 : Irritating to eyes, respiratory system and skin
- R 38 : Irritating to the skin
- R 41 : Risk of serious damage to eyes
- R 42/43 : May cause sensitization by inhalation and skin contact
- R 45 : May cause cancer

## (CONTINUED) - SECTION 16: Other Information

### Relevant R-phras(e)s, S-phras(e)s, Hazard code(s), Hazard statement(s), and Precautionary statement(s)

#### Risk Phrase(s)

- R 46 : May cause heritable genetic damage  
R 48/23 : Toxic: danger of serious damage to health by prolonged exposure through inhalation  
R 48/23/25 : Toxic: danger of serious damage to health by prolonged exposure through inhalation and if swallowed  
R 49 : May cause cancer by inhalation  
R 50 : Very Toxic to aquatic organisms  
R 50/53 : Very Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment  
R 52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment  
R 60 : May impair fertility  
R 61 : May cause harm to the unborn child  
R 68 : Possible risk of irreversible effects

#### Safety Phrase(s)

- S 13 : Keep away from food, drink and animal feeding stuffs  
S 17 : Keep away from combustible material  
S 22 : Do not breathe dust  
S 24 : Avoid contact with skin  
S 24/25 : Avoid contact with skin and eyes  
S 26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  
S 36 : Wear suitable protective clothing and seek medical advice  
S 36/37 : Wear suitable protective clothing and gloves  
S 36/39 : Wear suitable protective clothing and eye/face protection  
S 36/37/39 : Wear suitable protective clothing, gloves and eye/face protection  
S 45 : In case of accident or if you feel unwell, seek medical advice immediately (show label where possible)  
S 46 : If swallowed, seek medical advice immediately and show this container or label  
S 53 : Avoid exposure - obtain special instruction before use  
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(s)

- GHS03 :  Oxidising gases  
GHS05 :  Corrosion  
GHS06 :  Acute toxicity  
GHS07 :  Acute toxicity  
GHS08 :  Health Hazard  
GHS09 :  Environment



## (CONTINUED) - SECTION 16: Other Information

### Relevant R-phras(e), S-phras(e), Hazard code(s), Hazard statement(s), and Precautionary statement(s)

#### Hazard statement(s)

H272	:	May intensify fire; oxidizer
H301	:	Toxic if swallowed
H302	:	Harmful if swallowed
H311	:	Toxic in contact with skin
H312	:	Harmful in contact with skin
H314	:	Causes severe skin burns and eye damage
H315	:	Causes skin irritation
H317	:	May cause an allergic skin reaction
H318	:	Causes serious eye damage
H319	:	Causes serious eye irritation
H330	:	Fatal if inhaled
H331	:	Toxic if inhaled
H332	:	Harmful if inhaled
H334	:	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	:	May cause respiratory irritation
H340	:	May cause genetic defects
H341	:	Suspected of causing genetic defects
H350	:	May cause cancer
H350i	:	May cause cancer by inhalation
H360	:	May damage fertility or the unborn child
H360F	:	May damage fertility
H360FD	:	May damage fertility. May damage the unborn child
H372	:	Causes damage to organs through prolonged or repeated exposure
H400	:	Very toxic to aquatic life
H410	:	Very toxic to aquatic life with long lasting effects
H412	:	Harmful to aquatic life with long lasting effects

#### Precautionary statement(s)

P201	:	Obtain special instructions before use.
P220	:	Keep/Store away from clothing/combustible materials.
P260	:	Do not breathe dust/fume/gas/mist/vapours/spray.
P261	:	Avoid breathing dust/fume/gas/mist/vapours/spray.
P273	:	Avoid release to the environment.
P280	:	Wear protective gloves/protective clothing/eye protection/face protection.
P284	:	Wear respiratory protection.
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.
P308 + P313	:	IF exposed or concerned: Get medical advice/attention.
P310	:	Immediately call a POISON CENTER or doctor/physician.
P311	:	Call a POISON CENTER or doctor/physician.
P501	:	Dispose of contents/container to a licensed disposal company.

## **(CONTINUED) - SECTION 16: Other Information**

### **DISCLAIMER**

For research use only. Not for drug, household, or other use.

### **WARRANTY**

The above information is believed to be correct but does no 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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