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

1.1 Product identifiers

Product Name	:	Proti-Ace™
Product Number	:	HR2-429
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

Refer to Section 16

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

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

(CONTINUED) - SECTION 10: Stability and Reactivity

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

Refer to Section 16

SECTION 12: Ecological Information

Refer to Section 16

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

(CONTINUED) - SECTION 14: Transportation Information

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**
Calcium acetate hydrate	114460-21-8	36/37/38			H315-H319-H335	P261-P305 + P351 + P338	2
Calcium chloride dihydrate	10035-04-8	36	22-24		H319	P305 + P351 + P338	1
Chymotrypsin	9035-75-0						1
EDTA disodium salt	6381-92-6						3
Elastase	9004-06-2						
Endoproteinase Glu-C	66676-43-5	36/37/38-42/43	22-26-36/37-45	GHS07, GHS08	H315-H317-H319-H334-H335	P261-P280-P305 + P351 + P338-P342 + P311	3
HEPES	7365-45-9						1
L-Cysteine	52-90-4	22		GHS07	H302		1
Papain	9001-73-4	36/37/38-42	22-24-26-36/37	GHS07, GHS08	H315-H319-H334-H335	P261-P305 + P351 + P338-P342 + P311	1
Sodium acetate trihydrate	6131-90-4						1
Sodium chloride	7647-14-5						1
Subtilisin	9014-01-1	22-37/38-41-42-50	22-24-26-36/37/39-61	GHS05, GHS07, GHS08, GHS09	H302-H315-H318-H334-H335-H410	P261-P273-P280-P305 + P351 + P338-P342 + P311	1
TCEP hydrochloride	51805-45-9	34	26-27-36/37/39		H314	P280-P305 + P351 + P338-P310	2
Tris	77-86-1						2
Trypsin	9002-07-7	36/37/38-42	22-24-26-36/37	GHS07, GHS08	H315-H319-H334-H335	P261-P280-P284-P304 + P340-P337 + P313-P342 + P311	1

(CONTINUED) - SECTION 16: Other Information

Relevant R-phrase(s), S-phrase(s), GHS Pictogram(s), Hazard statement(s), and Precautionary statement(s)

Risk Phrase(s)

R 22 : Harmful if swallowed
R 36 : Irritating to the eyes
R 36/37/38 : Irritating to eyes, respiratory system and skin
R 37/38 : Irritating to respiratory system and skin
R 41 : Risk of serious damage to eyes
R 42 : May cause sensitization by inhalation
R 42/43 : May cause sensitization by inhalation and skin contact
R 50 : Very Toxic to aquatic organisms
R 34 : Causes burns

Safety Phrase(s)

S 22 : Do not breathe dust
S 24 : Avoid contact with skin
S 26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S 27 : Take off immediately all contaminated clothing
S 36/37 : Wear suitable protective clothing and gloves
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 61 : Avoid release to the environment.

GHS Pictogram

GHS05 : Eye Irrit.

GHS08 : Carcinogenicity 1A, 1B

GHS07 : Acute Toxicity
Eye Irrit. 2
STOT SE 3

GHS09 : Hazardous to aquatic environment

Hazard statement(s)

H302 : Harmful if swallowed
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
H334 : May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 : May cause respiratory irritation
H410 : Very toxic to aquatic life with long lasting effects

Precautionary statement(s)

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.

(CONTINUED) - SECTION 16: Other Information

Relevant R-phrase(s), S-phrase(s), GHS Pictogram(s), Hazard statement(s), and Precautionary statement(s)

(CONTINUED) - Precautionary statement(s)

P304 + P340 : IF INHALED: Remove victim to fresh air and Keep at rest in a position comfortable for breathing.

P304 + P341 : IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338 : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 : Immediately call a POISON CENTER or doctor/physician.

P337 : If eye irritation persists, get medical advice/attention

P342 + P311 : IF experiencing respiratory symptoms: call a POISON CENTER or doctor/physician.

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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