



SAFETY DATA SHEET

SECTION 1 - SUBSTANCE IDENTITY AND COMPANY INFORMATION

Product Name: Vascular Smooth Muscle Cell Growth Kit
Product Number: PCS-100-042
Company Address: AMERICAN TYPE CULTURE COLLECTION
PO BOX 1549
MANASSAS, VA 20108

Technical Phone: 800-638-6597 or 703-365-2700
AFTER-HOURS CONTACT: 703-365-2710
CHEMTREC EMERGENCY: 800-424-9300 or 703-527-3887

Product use: Cell/Tissue culture

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Principal Components:
Vascular Smooth Muscle Cell Growth Kit, PCS-100-042:
Ascorbic Acid, 0.5 mL, PCS-999-006
FBS, 25 mL, PCS-999-026
rh EGF, 0.5 mL, PCS-999-018
rh Insulin, 0.5 mL, PCS-999-022
L-Glutamine (200 mM), 25 mL, PCS-999-017
rh FGF-b, 0.5 mL, PCS-999-020

Please refer to Safety Data Sheets (SDS) for the above listed components on the following pages.



SAFETY DATA SHEET

SECTION 1 - SUBSTANCE IDENTITY AND COMPANY INFORMATION

Product Name: Ascorbic Acid

ATCC Catalog #: PCS-999-006

CAS #:

COMPANY INFORMATION: AMERICAN TYPE CULTURE COLLECTION
PO BOX 1549
MANASSAS, VA 20108

FOR INFORMATION CALL: 800-638-6597 or 703-365-2700

AFTER-HOURS CONTACT: 703-365-2710

CHEMTREC EMERGENCY: 800-424-9300 or 703-527-3887

Product use: Cell/Tissue culture

SECTION 2 - HAZARDS IDENTIFICATION

Hazardous Components: Not a hazardous substance or mixture

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Principal Components: L-Ascorbic Acid Phosphate Magnesium Salt CAS number: 113170-55-1
Water CAS number: 7732-18-5

Composition: The item formulation is a solution of the above form of Ascorbic Acid and water. The solution contains approximately 5% L-Ascorbic Acid Phosphate Magnesium Salt in water.

Synonym: Phospitan C, AA2P, Ascorbyl PM, (Vitamin C)

SECTION 4 - FIRST AID MEASURES

Potential Health Effects:

Eye: May cause irritation of the eye.

Skin: May cause skin irritation.

Ingestion: May be harmful if swallowed.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper



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respiratory tract.

First aid measures:

Oral Exposure: If swallowed, rinse out mouth with water provided person is conscious. Call a physician.

Dermal Exposure: In case of contact with skin, flush with copious amounts of water for at least 15 minutes. Should irritation occur, call a physician.

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

SECTION 5 - FIRE FIGHTING MEASURES

General Fire hazard: Product does not present any special fire hazard. Carbon oxides may be released in a fire.

Flash point: N/A

Extinguishing media: Use media appropriate for the material that is burning.

Advice for Firefighters: Wear self-contained breathing apparatus if necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Refer to section 8 for appropriate personal protection.

Environmental Precautions: No special environmental precautions are required.

Methods for Clean Up: Absorb liquid with disposable laboratory towel or other absorbent material and then place in a closed container for disposal. Wash spill site after liquid cleanup is complete with cleansers appropriate for the spill site surface material.

SECTION 7 - HANDLING AND STORAGE

Precautions for Handling: Refer to section 8 for appropriate personal protection. Avoid contact with eyes, skin or clothing. Product may cause allergic reaction in sensitized individuals. Do not pipet by mouth.

Storage: Keep container tightly closed. Store at -20°C or below. Protect from light.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: Not listed on the OSHA Occupational Chemical database.

Engineering Controls: Eye wash stations are required.

Ventilation: Area ventilation is generally adequate.

Personal Protective Equipment:

Respiratory: Respirator is not required.

Hand: Chemical resistant gloves required.



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Eye: Safety glasses or goggles required.
Clothing: Laboratory coat recommended.

General Hygiene Measures: Wash hands thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Frozen, clear liquid above ~0° C.
Upper/lower flammability or Explosive limits: No data available
Odor: Odorless
Vapor pressure: No data available
Odor threshold: No data available
Vapor density: No data available
pH: No data available
Relative density: No data available
Freezing point: ~0° C
Solubility: Completely soluble in water
Boiling point: ~100° C
Flash point: No data available
Evaporation rate: No data available
Flammability: Not flammable
Relative density: No data available
Partition coefficient:
n-octanol/water: No data available
Auto-ignition temperature: No data available
Viscosity: No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available
Chemical stability: Stable under recommended storage and usage conditions.
Possible hazardous reactions: No data available
Conditions to be avoided: No data available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Carbon oxides may be released in a fire.

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely routes of exposure: Ingestion, skin, eye contact.

Acute toxicity
Oral LD50: No data available
Inhalation LC50: No data available



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Dermal LD50:	No data available
Other:	No data available
Chronic toxicity:	No data available
Skin corrosion:	No data available
Eye damage:	No data available
Sensitization (Respiration or Skin):	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Teratogenicity:	No data available
Carcinogenicity NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:	No data available
Persistence/Degradability:	No data available
Bioaccumulation Potential:	No data available
Mobility in Soil:	No data available. Expected to be mobile because it is an aqueous solution.

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA hazardous waste code:	Not listed as a hazardous waste.
Appropriate disposal containers:	No specific restrictions on waste container type.
Appropriate Method of Disposal:	Clean up and dispose of waste in accordance with all federal, state and local environmental regulations.

SECTION 14 - TRANSPORT INFORMATION

UN number:	N/A
Proper Shipping Name:	None.
DOT:	Non-hazardous for transport.
IMDG:	Non-hazardous for transport.
IATA:	Non-hazardous for transport.

SECTION 15 - REGULATORY INFORMATION

SARA 302 Components:	No chemicals in this product are subject to SARA Title III, Section 302.
SARA 313 Components:	This product does not contain chemical components with known CAS numbers that exceed the threshold (De Minimus) reporting levels established by SARA Title III,



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SARA 311/312: Section 313.
Not a hazardous substance or mixture

Massachusetts
Right to Know Components: No components are subject to Massachusetts Right to Know Act.

Pennsylvania
Right to Know Components: L-Ascorbic Acid Phosphate Magnesium Salt CAS number: 113170-55-1
Water CAS number: 7732-18-5

New Jersey
Right to Know Components: No components are subject to New Jersey Right to Know Act.

California
Prop. 65 Components: This product does not contain any chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

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OTHER INFORMATION

DATE REVISED: JUNE 1, 2016

THE INFORMATION PRESENTED IN THIS DOCUMENT IS BELIEVED TO BE CORRECT BASED UPON DATA AVAILABLE TO ATCC. USERS SHOULD MAKE AN INDEPENDENT DECISION REGARDING THE ACCURACY OF THIS INFORMATION BASED ON THEIR NEEDS AND DATA AVAILABLE TO THEM. ALL SUBSTANCES AND MIXTURES MAY PRESENT UNKNOWN HAZARDS AND ALL NECESSARY SAFETY PRECAUTIONS SHOULD BE TAKEN. ATCC ASSUMES NO LIABILITY RESULTING FROM USING OR COMING IN CONTACT WITH THIS SUBSTANCE.

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SAFETY DATA SHEET

SECTION 1 - SUBSTANCE IDENTITY AND COMPANY INFORMATION

Product Name: Fetal Bovine Serum
ATCC Catalog #: PCS-999-010
CAS #:

COMPANY INFORMATION: AMERICAN TYPE CULTURE COLLECTION
PO BOX 1549
MANASSAS, VA 20108

FOR INFORMATION CALL: 800-638-6597 or 703-365-2700
AFTER-HOURS CONTACT: 703-365-2710

CHEMTREC EMERGENCY: 800-424-9300 or 703-527-3887

Product use: Cell/Tissue culture

SECTION 2 - HAZARDS IDENTIFICATION

Hazardous Components: Not a hazardous substance or mixture

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Principal Components: Fetal Bovine Serum CAS number: N/A
Composition: The item formulation is 100% fetal bovine serum.
Synonym: Fetal Bovine Serum, Fetal Calf Serum, FCS

SECTION 4 - FIRST AID MEASURES

Potential Health Effects:

Eye: May cause irritation of the eye.
Skin: May cause skin irritation.
Ingestion: May be harmful if swallowed.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

First aid measures:

Oral Exposure: If swallowed, rinse out mouth with water provided person is conscious. Call a physician.
Dermal Exposure: In case of contact with skin, flush with copious amounts of water for at least 15 minutes. Should irritation occur, call a physician.
Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15



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minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

SECTION 5 - FIRE FIGHTING MEASURES

General Fire hazard: Product does not present any special fire hazard. Carbon oxides may be released in a fire.
Flash point: N/A
Extinguishing media: Use media appropriate for the material that is burning.
Advice for Firefighters: Wear self-contained breathing apparatus if necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Refer to section 8 for appropriate personal protection.
Environmental Precautions: No special environmental precautions are required.
Methods for Clean Up: Absorb liquid with disposable laboratory towel or other absorbent material and then place in a closed container for disposal. Wash spill site after liquid cleanup is complete with cleansers appropriate for the spill site surface material.

SECTION 7 - HANDLING AND STORAGE

Precautions for Handling: Refer to section 8 for appropriate personal protection. Avoid contact with eyes, skin or clothing. Product may cause allergic reaction in sensitized individuals. Do not pipet by mouth.
Storage: Keep container tightly closed. Store at -20°C or below. Protect from light.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: Not listed on the OSHA Occupational Chemical database.
Engineering Controls: Eye wash stations are required.
Ventilation: Area ventilation is generally adequate.

Personal Protective Equipment:

Respiratory: Respirator is not required.
Hand: Chemical resistant gloves required.
Eye: Safety glasses or goggles required.
Clothing: Laboratory coat recommended.

General Hygiene Measures: Wash hands thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES



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Appearance:	Tan or straw colored, frozen liquid.
Upper/lower flammability or Explosive limits:	No data available
Odor:	Faint earthy or musky odor
Vapor pressure:	No data available
Odor threshold:	No data available
Vapor density:	No data available
pH:	No data available
Relative density:	No data available
Freezing point:	No data available
Solubility:	Soluble in water
Boiling point:	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability:	Not flammable
Partition coefficient:	
n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Viscosity:	No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical stability:	Stable under recommended storage and usage conditions.
Possible hazardous reactions:	No data available
Conditions to be avoided:	No data available
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	Carbon oxides may be released in a fire.

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely routes of exposure: Ingestion, skin, eye contact.

Acute toxicity

Oral LD50:	No data available
Inhalation LC50:	No data available
Dermal LD50:	No data available
Other:	No data available

Chronic toxicity:	No data available
Skin corrosion:	No data available
Eye damage:	No data available
Sensitization	



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(Respiration or Skin): No data available
Germ cell mutagenicity: No data available
Reproductive toxicity: No data available
Teratogenicity: No data available
Carcinogenicity
NTP: not listed
IARC: not listed
OSHA: not listed

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No data available
Persistence/Degradability: No data available
Bioaccumulation Potential: No data available
Mobility in Soil: No data available. Expected to be mobile in soil due to high solubility in water.

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA hazardous waste code: Not listed as a hazardous waste.
Appropriate disposal containers: No specific restrictions on waste container type.
Appropriate Method of Disposal: Clean up and dispose of waste in accordance with all federal, state and local environmental regulations.

SECTION 14 - TRANSPORT INFORMATION

UN number: N/A
Proper Shipping Name: None.
DOT: Non-hazardous for transport.
IMDG: Non-hazardous for transport.
IATA: Non-hazardous for transport.

SECTION 15 - REGULATORY INFORMATION

SARA 302 Components: No chemicals in this product are subject to SARA Title III, Section 302.
SARA 313 Components: This product does not contain chemical components with known CAS numbers that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.
SARA 311/312: Not a hazardous substance or mixture

Massachusetts
Right to Know Components: No components are subject to Massachusetts Right to Know Act.

Pennsylvania
Right to Know Components: Fetal Bovine Serum CAS number: N/A



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New Jersey

Right to Know Components: Fetal Bovine Serum CAS number: N/A

California

Prop. 65 Components: This product does not contain any chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

SECTION 16 - OTHER INFORMATION

DATE REVISED: JUNE 1, 2016

THE INFORMATION PRESENTED IN THIS DOCUMENT IS BELIEVED TO BE CORRECT BASED UPON DATA AVAILABLE TO ATCC. USERS SHOULD MAKE AN INDEPENDENT DECISION REGARDING THE ACCURACY OF THIS INFORMATION BASED ON THEIR NEEDS AND DATA AVAILABLE TO THEM. ALL SUBSTANCES AND MIXTURES MAY PRESENT UNKNOWN HAZARDS AND ALL NECESSARY SAFETY PRECAUTIONS SHOULD BE TAKEN. ATCC ASSUMES NO LIABILITY RESULTING FROM USING OR COMING IN CONTACT WITH THIS SUBSTANCE.

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SAFETY DATA SHEET

SECTION 1 - SUBSTANCE IDENTITY AND COMPANY INFORMATION

Product Name: rh EGF
ATCC Catalog #: PCS-999-018
CAS #:

COMPANY INFORMATION: AMERICAN TYPE CULTURE COLLECTION
PO BOX 1549
MANASSAS, VA 20108

FOR INFORMATION CALL: 800-638-6597 or 703-365-2700
AFTER-HOURS CONTACT: 703-365-2710

CHEMTREC EMERGENCY: 800-424-9300 or 703-527-3887

Product use: Cell/Tissue culture

SECTION 2 - HAZARDS IDENTIFICATION

Hazardous Components: Not a hazardous substance or mixture

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Principal Components: recombinant human EGF CAS number: N/A
Water CAS number: 7732-18-5

Composition: The item formulation is a mixture of recombinant human EGF (rh EGF), water and stabilizing agents. With the exception of purified water, all ingredients are in concentrations of less than 1%.

Synonym: Epidermal Growth Factor, Urogastrone, URG

SECTION 4 - FIRST AID MEASURES

Potential Health Effects:

Eye: May cause irritation of the eye.

Skin: May cause skin irritation.

Ingestion: May be harmful if swallowed.

Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

First aid measures:

Oral Exposure: If swallowed, rinse out mouth with water provided person is conscious. Call a



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Dermal Exposure: physician.
In case of contact with skin, flush with copious amounts of water for at least 15 minutes. Should irritation occur, call a physician.

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

SECTION 5 - FIRE FIGHTING MEASURES

General Fire hazard: Product does not present any special fire hazard. Carbon oxides may be released in a fire.

Flash point: N/A

Extinguishing media: Use media appropriate for the material that is burning.

Advice for Firefighters: Wear self-contained breathing apparatus if necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Refer to section 8 for appropriate personal protection.

Environmental Precautions: No special environmental precautions are required.

Methods for Clean Up: Absorb liquid with disposable laboratory towel or other absorbent material and then place in a closed container for disposal. Wash spill site after liquid cleanup is complete with cleansers appropriate for the spill site surface material.

SECTION 7 - HANDLING AND STORAGE

Precautions for Handling: Refer to section 8 for appropriate personal protection. Avoid contact with eyes, skin or clothing. Product may cause allergic reaction in sensitized individuals. Do not pipet by mouth.

Storage: Keep container tightly closed. Store at -20°C or below. Protect from light.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: Not listed on the OSHA Occupational Chemical database.

Engineering Controls: Eye wash stations are required.

Ventilation: Area ventilation is generally adequate.

Personal Protective Equipment:

Respiratory: Respirator is not required.

Hand: Chemical resistant gloves required.

Eye: Safety glasses or goggles required.

Clothing: Laboratory coat recommended.



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General Hygiene Measures: Wash hands thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Frozen, clear liquid above ~0° C.
Upper/lower flammability or Explosive limits: No data available
Odor: Odorless
Vapor pressure: No data available
Odor threshold: No data available
Vapor density: No data available
pH: Neutral
Relative density: No data available
Freezing point: ~0° C
Solubility: Completely soluble in water
Boiling point: ~100° C
Flash point: No data available
Evaporation rate: No data available
Flammability: Not flammable
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Viscosity: No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available
Chemical stability: Stable under recommended storage and usage conditions.
Possible hazardous reactions: No data available
Conditions to be avoided: No data available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Carbon oxides may be released in a fire.

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely routes of exposure: Ingestion, skin, eye contact.

Acute toxicity
Oral LD50: No data available
Inhalation LC50: No data available
Dermal LD50: No data available
Other: No data available

Chronic toxicity: No data available



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Skin corrosion:	No data available
Eye damage:	No data available
Sensitization (Respiration or Skin):	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Teratogenicity:	No data available
Carcinogenicity	
NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:	No data available
Persistence/Degradability:	No data available
Bioaccumulation Potential:	No data available
Mobility in Soil:	No data available. Expected to be mobile because it is an aqueous solution.

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA hazardous waste code:	Not listed as a hazardous waste.
Appropriate disposal containers:	No specific restrictions on waste container type.
Appropriate Method of Disposal:	Clean up and dispose of waste in accordance with all federal, state and local environmental regulations.

SECTION 14 - TRANSPORT INFORMATION

UN number:	N/A
Proper Shipping Name:	None.
DOT:	Non-hazardous for transport.
IMDG:	Non-hazardous for transport.
IATA:	Non-hazardous for transport.

SECTION 15 - REGULATORY INFORMATION

SARA 302 Components:	No chemicals in this product are subject to SARA Title III, Section 302.
SARA 313 Components:	This product does not contain chemical components with known CAS numbers that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.
SARA 311/312:	Not a hazardous substance or mixture

Massachusetts



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Right to Know Components: No components are subject to Massachusetts Right to Know Act.

Pennsylvania

Right to Know Components: Water CAS number: 7732-18-5

New Jersey

Right to Know Components: No components are subject to New Jersey Right to Know Act.

California Prop.

65 Components: This product does not contain any chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

SECTION 16 -

OTHER INFORMATION

DATE REVISED: JUNE 1, 2016

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SAFETY DATA SHEET

SECTION 1 - SUBSTANCE IDENTITY AND COMPANY INFORMATION

Product Name: rh Insulin
Product Number: PCS-999-022

COMPANY INFORMATION: AMERICAN TYPE CULTURE COLLECTION
PO BOX 1549
MANASSAS, VA 20108

FOR INFORMATION CALL: 800-638-6597 or 703-365-2700
AFTER-HOURS CONTACT: 703-365-2710

CHEMTREC EMERGENCY: 800-424-9300 or 703-527-3887

Product use: Cell/Tissue culture

SECTION 2 - HAZARDS IDENTIFICATION

Hazardous Components: Not a hazardous substance or mixture

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Principal Components: recombinant human Insulin CAS number: 11061-68-0
Water CAS number: 7732-18-5

Composition: The item formulation is a mixture of recombinant human Insulin, water and stabilizing agents. With the exception of purified water, all ingredients are in concentrations of less than 1%.

Synonym:

SECTION 4 - FIRST AID MEASURES

Potential Health Effects:

Eye: May cause irritation of the eye.
Skin: May cause skin irritation.
Ingestion: May be harmful if swallowed.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.



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First aid measures:

- Oral Exposure:** If swallowed, rinse out mouth with water provided person is conscious. Call a physician.
- Dermal Exposure:** In case of contact with skin, flush with copious amounts of water for at least 15 minutes. Should irritation occur, call a physician.
- Eye Exposure:** In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

SECTION 5 - FIRE FIGHTING MEASURES

- General Fire hazard:** Product does not present any special fire hazard. Carbon oxides may be released in a fire.
- Flash point:** N/A
- Extinguishing media:** Use media appropriate for the material that is burning.
- Advice for Firefighters:** Wear self-contained breathing apparatus if necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal Precautions and Protective Equipment:** Refer to section 8 for appropriate personal protection.
- Environmental Precautions:** No special environmental precautions are required.
- Methods for Clean Up:** Absorb liquid with disposable laboratory towel or other absorbent material and then place in a closed container for disposal. Wash spill site after liquid cleanup is complete with cleansers appropriate for the spill site surface material.

SECTION 7 - HANDLING AND STORAGE

- Precautions for Handling:** Refer to section 8 for appropriate personal protection. Avoid contact with eyes, skin or clothing. Product may cause allergic reaction in sensitized individuals. Do not pipet by mouth.
- Storage:** Keep container tightly closed. Store at -20°C or below. Protect from light.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

- Exposure limits:** Not listed on the OSHA Occupational Chemical database.
- Engineering Controls:** Eye wash stations are required.
- Ventilation:** Area ventilation is generally adequate.

Personal Protective Equipment:

- Respiratory:** Respirator is not required.
- Hand:** Chemical resistant gloves required.



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Eye: Safety glasses or goggles required.
Clothing: Laboratory coat recommended.

General Hygiene Measures: Wash hands thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Frozen, clear liquid above ~0° C.
Upper/lower flammability or Explosive limits: No data available
Odor: Odorless
Vapor pressure: No data available
Odor threshold: No data available
Vapor density: No data available
pH: No data available
Relative density: No data available
Freezing point: ~0° C
Solubility: Completely soluble in water
Boiling point: ~100° C
Flash point: No data available
Evaporation rate: No data available
Flammability: Not flammable
Partition coefficient: n-octanol/water: No data available
Auto-ignition temperature: No data available
Viscosity: No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available
Chemical stability: Stable under recommended storage and usage conditions.
Possible hazardous reactions: No data available
Conditions to be avoided: No data available
Incompatible materials: Strong oxidizing agents
Hazardous decomposition products: Carbon oxides may be released in a fire.

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely routes of exposure: Ingestion, skin, eye contact.

Acute toxicity
Oral LD50: No data available
Inhalation LC50: No data available
Dermal LD50: No data available



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Other:	No data available
Chronic toxicity:	No data available
Skin corrosion:	No data available
Eye damage:	No data available
Sensitization (Respiration or Skin):	No data available
Germ cell mutagenicity:	No data available
Carcinogenicity:	No data available
Reproductive toxicity:	No data available
Teratogenicity:	No data available
Carcinogenicity	
NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity:	No data available
Persistence/Degradability:	No data available
Bioaccumulation Potential:	No data available
Mobility in Soil:	No data available. Expected to be mobile because it is an aqueous solution.

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA hazardous waste code:	Not listed as a hazardous waste.
Appropriate disposal containers:	No specific restrictions on waste container type.
Appropriate Method of Disposal:	Clean up and dispose of waste in accordance with all federal, state and local environmental regulations.

SECTION 14 - TRANSPORT INFORMATION

UN number:	N/A
Proper Shipping Name:	None.
DOT:	Non-hazardous for transport.
IMDG:	Non-hazardous for transport.
IATA:	Non-hazardous for transport.

SECTION 15 - REGULATORY INFORMATION

SARA 302 Components:	No chemicals in this product are subject to SARA Title III, Section 302.
SARA 313 Components:	This product does not contain chemical components with known CAS numbers that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.



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SARA 311/312: Not a hazardous substance or mixture

Massachusetts

Right to Know Components: No components are subject to Massachusetts Right to Know Act.

Pennsylvania

Right to Know Components: Water CAS number: 7732-18-5

New Jersey

Right to Know Components: No components are subject to New Jersey Right to Know Act.

California

Prop. 65 Components: This product does not contain any chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

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OTHER INFORMATION

DATE REVISED: JUNE 1, 2016

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SAFETY DATA SHEET

SECTION 1 - SUBSTANCE IDENTITY AND COMPANY INFORMATION

Product Name: L-Glutamine
ATCC Catalog #: PCS-999-017
CAS #:
COMPANY INFORMATION: AMERICAN TYPE CULTURE COLLECTION
PO BOX 1549
MANASSAS, VA 20108
FOR INFORMATION CALL: 800-638-6597 or 703-365-2700
AFTER-HOURS CONTACT: 703-365-2710
CHEMTREC EMERGENCY: 800-424-9300 or 703-527-3887

Product use: Cell/Tissue culture

SECTION 2 - HAZARDS IDENTIFICATION

Hazardous Components: Not a hazardous substance or mixture

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Principal Components: L-Glutamine CAS number: 58-85-9
Water CAS number: 7732-18-5
Composition: The item formulation is a solution of L-Glutamine and water. The solution contains 1-5% L-Glutamine in water.
Synonym: Glutamine, Levoglutamine, L-(+) Glutamine, Cebrogen, Glavamin, Stimulina

SECTION 4 - FIRST AID MEASURES

Potential Health Effects:
Eye: May cause irritation of the eye.
Skin: May cause skin irritation.
Ingestion: May be harmful if swallowed.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.
First aid measures:
Oral Exposure: If swallowed, rinse out mouth with water provided person is conscious. Call a physician.
Dermal Exposure: In case of contact with skin, flush with copious amounts of water for at least 15



SAFETY DATA SHEET

Eye Exposure: minutes. Should irritation occur, call a physician.
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

SECTION 5 - FIRE FIGHTING MEASURES

General Fire hazard: Product does not present any special fire hazard. Carbon oxides may be released in a fire.
Flash point: N/A
Extinguishing media: Use media appropriate for the material that is burning.
Advice for Firefighters: Wear self-contained breathing apparatus if necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Refer to section 8 for appropriate personal protection.
Environmental Precautions: No special environmental precautions are required.
Methods for Clean Up: Absorb liquid with disposable laboratory towel or other absorbent material and then place in a closed container for disposal. Wash spill site after liquid cleanup is complete with cleansers appropriate for the spill site surface material.

SECTION 7 - HANDLING AND STORAGE

Precautions for Handling: Refer to section 8 for appropriate personal protection. Avoid contact with eyes, skin or clothing. Product may cause allergic reaction in sensitized individuals. Do not pipet by mouth.
Storage: Keep container tightly closed. Store at -20°C or below. Protect from light.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: Not listed on the OSHA Occupational Chemical database.
Engineering Controls: Eye wash stations are required.
Ventilation: Area ventilation is generally adequate.

Personal Protective Equipment:

Respiratory: Respirator is not required.
Hand: Chemical resistant gloves required.
Eye: Safety glasses or goggles required.
Clothing: Laboratory coat recommended.

General Hygiene Measures: Wash hands thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES



SAFETY DATA SHEET

Appearance:	Frozen, liquid with white precipitate above ~0° C, clear liquid above ~20° C.
Upper/lower flammability or Explosive limits:	No data available
Odor:	Odorless
Vapor pressure:	No data available
Odor threshold:	No data available
Vapor density:	No data available
pH:	No data available
Relative density:	No data available
Freezing point:	~0° C
Solubility:	Completely soluble in water
Boiling point:	~100° C
Flash point:	No data available
Evaporation rate:	No data available
Flammability:	Not flammable
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Viscosity:	No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical stability:	Stable under recommended storage and usage conditions.
Possible hazardous reactions:	No data available
Conditions to be avoided:	No data available
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	Carbon oxides may be released in a fire.

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely routes of exposure: Ingestion, skin, eye contact.

Acute toxicity	
Oral LD50:	No data available
Inhalation LC50:	No data available
Dermal LD50:	No data available
Other:	No data available

Chronic toxicity:	No data available
Skin corrosion:	No data available
Eye damage:	No data available
Sensitization	



SAFETY DATA SHEET

(Respiration or Skin): No data available
Germ cell mutagenicity: No data available
Reproductive toxicity: No data available
Teratogenicity: No data available
Carcinogenicity
NTP: not listed
IARC: not listed
OSHA: not listed

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No data available
Persistence/Degradability: No data available
Bioaccumulation Potential: No data available
Mobility in Soil: No data available.

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA hazardous waste code: Not listed as a hazardous waste.
Appropriate disposal containers: No specific restrictions on waste container type.
Appropriate Method of Disposal: Clean up and dispose of waste in accordance with all federal, state and local environmental regulations.

SECTION 14 - TRANSPORT INFORMATION

UN number: N/A
Proper Shipping Name: None.
DOT: Non-hazardous for transport.
IMDG: Non-hazardous for transport.
IATA: Non-hazardous for transport.

SECTION 15 - REGULATORY INFORMATION

SARA 302 Components: No chemicals in this product are subject to SARA Title III, Section 302.
SARA 313 Components: This product does not contain chemical components with known CAS numbers that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.
SARA 311/312: Not a hazardous substance or mixture

Massachusetts
Right to Know Components: No components are subject to Massachusetts Right to Know Act.

Pennsylvania
Right to Know Components: L-Glutamine CAS number: 58-85-9



SAFETY DATA SHEET

Water CAS number: 7732-18-5

New Jersey

Right to Know Components: No components are subject to New Jersey Right to Know Act.

California

Prop. 65 Components: This product does not contain any chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

SECTION 16 - OTHER INFORMATION

DATE REVISED: JUNE 1, 2016

THE INFORMATION PRESENTED IN THIS DOCUMENT IS BELIEVED TO BE CORRECT BASED UPON DATA AVAILABLE TO ATCC. USERS SHOULD MAKE AN INDEPENDENT DECISION REGARDING THE ACCURACY OF THIS INFORMATION BASED ON THEIR NEEDS AND DATA AVAILABLE TO THEM. ALL SUBSTANCES AND MIXTURES MAY PRESENT UNKNOWN HAZARDS AND ALL NECESSARY SAFETY PRECAUTIONS SHOULD BE TAKEN. ATCC ASSUMES NO LIABILITY RESULTING FROM USING OR COMING IN CONTACT WITH THIS SUBSTANCE.

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SAFETY DATA SHEET

SECTION 1 - SUBSTANCE IDENTITY AND COMPANY INFORMATION

Product Name: rh FGF-b
ATCC Catalog #: PCS-999-020
CAS #:

COMPANY INFORMATION: AMERICAN TYPE CULTURE COLLECTION
PO BOX 1549
MANASSAS, VA 20108
FOR INFORMATION CALL: 800-638-6597 or 703-365-2700
AFTER-HOURS CONTACT: 703-365-2710

CHEMTREC EMERGENCY: 800-424-9300 or 703-527-3887

Product use: Cell/Tissue culture

SECTION 2 - HAZARDS IDENTIFICATION

Hazardous Components: Not a hazardous substance or mixture

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Principal Components: recombinant human FGF-b CAS number: 106096-93-9
Water CAS number: 7732-18-5
Composition: The item formulation is a mixture of recombinant human FGF-b (rh FGF-b), water and stabilizing agents. With the exception of purified water, all ingredients are in concentrations of less than 1%.
Synonym: Fibroblast Growth Factors-basic, bFGF, FGF-2

SECTION 4 - FIRST AID MEASURES

Potential Health Effects:
Eye: May cause irritation of the eye.
Skin: May cause skin irritation.
Ingestion: May be harmful if swallowed.
Inhalation: May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract.

First aid measures:
Oral Exposure: If swallowed, rinse out mouth with water provided person is conscious. Call a physician.
Dermal Exposure: In case of contact with skin, flush with copious amounts of water for at least 15 minutes. Should irritation occur, call a physician.



SAFETY DATA SHEET

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

SECTION 5 - FIRE FIGHTING MEASURES

General Fire hazard: Product does not present any special fire hazard. Carbon oxides may be released in a fire.
Flash point: N/A
Extinguishing media: Use media appropriate for the material that is burning.
Advice for Firefighters: Wear self-contained breathing apparatus if necessary.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Refer to section 8 for appropriate personal protection.
Environmental Precautions: No special environmental precautions are required.
Methods for Clean Up: Absorb liquid with disposable laboratory towel or other absorbent material and then place in a closed container for disposal. Wash spill site after liquid cleanup is complete with cleansers appropriate for the spill site surface material.

SECTION 7 - HANDLING AND STORAGE

Precautions for Handling: Refer to section 8 for appropriate personal protection. Avoid contact with eyes, skin or clothing. Product may cause allergic reaction in sensitized individuals. Do not pipet by mouth.
Storage: Keep container tightly closed. Store at -20°C or below. Protect from light.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limits: Not listed on the OSHA Occupational Chemical database.
Engineering Controls: Eye wash stations are required.
Ventilation: Area ventilation is generally adequate.

Personal Protective Equipment:

Respiratory: Respirator is not required.
Hand: Chemical resistant gloves required.
Eye: Safety glasses or goggles required.
Clothing: Laboratory coat recommended.

General Hygiene Measures: Wash hands thoroughly after handling.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES



SAFETY DATA SHEET

Appearance:	Frozen, clear liquid above ~0° C.
Upper/lower flammability or Explosive limits:	No data available
Odor:	Odorless
Vapor pressure:	No data available
Odor threshold:	No data available
Vapor density:	No data available
pH:	Neutral
Relative density:	No data available
Freezing point:	~0° C
Solubility:	Completely soluble in water
Boiling point:	~100° C
Flash point:	No data available
Evaporation rate:	No data available
Flammability:	Not flammable
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Viscosity:	No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity:	No data available
Chemical stability:	Stable under recommended storage and usage conditions.
Possible hazardous reactions:	No data available
Conditions to be avoided:	No data available
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	Carbon oxides may be released in a fire.

SECTION 11 - TOXICOLOGICAL INFORMATION

Likely routes of exposure: Ingestion, skin, eye contact.

Acute toxicity	
Oral LD50:	No data available
Inhalation LC50:	No data available
Dermal LD50:	No data available
Other:	No data available

Chronic toxicity:	No data available
Skin corrosion:	No data available
Eye damage:	No data available
Sensitization	



SAFETY DATA SHEET

(Respiration or Skin): No data available
Germ cell mutagenicity: No data available
Reproductive toxicity: No data available
Teratogenicity: No data available
Carcinogenicity
NTP: not listed
IARC: not listed
OSHA: not listed

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No data available
Persistence/Degradability: No data available
Bioaccumulation Potential: No data available
Mobility in Soil: No data available. Expected to be mobile because it is an aqueous solution.

SECTION 13 - DISPOSAL CONSIDERATIONS

RCRA hazardous waste code: Not listed as a hazardous waste.
Appropriate disposal containers: No specific restrictions on waste container type.
Appropriate Method of Disposal: Clean up and dispose of waste in accordance with all federal, state and local environmental regulations.

SECTION 14 - TRANSPORT INFORMATION

UN number: N/A
Proper Shipping Name: None.
DOT: Non-hazardous for transport.
IMDG: Non-hazardous for transport.
IATA: Non-hazardous for transport.

SECTION 15 - REGULATORY INFORMATION

SARA 302 Components: No chemicals in this product are subject to SARA Title III, Section 302.
SARA 313 Components: This product does not contain chemical components with known CAS numbers that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.
SARA 311/312: Not a hazardous substance or mixture

Massachusetts
Right to Know Components: No components are subject to Massachusetts Right to Know Act.

Pennsylvania
Right to Know Components: Water CAS number: 7732-18-5



SAFETY DATA SHEET

New Jersey

Right to Know Components: No components are subject to New Jersey Right to Know Act.

California

Prop. 65 Components: This product does not contain any chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.

SECTION 16 - OTHER INFORMATION

DATE REVISED: JUNE 1, 2016

THE INFORMATION PRESENTED IN THIS DOCUMENT IS BELIEVED TO BE CORRECT BASED UPON DATA AVAILABLE TO ATCC. USERS SHOULD MAKE AN INDEPENDENT DECISION REGARDING THE ACCURACY OF THIS INFORMATION BASED ON THEIR NEEDS AND DATA AVAILABLE TO THEM. ALL SUBSTANCES AND MIXTURES MAY PRESENT UNKNOWN HAZARDS AND ALL NECESSARY SAFETY PRECAUTIONS SHOULD BE TAKEN. ATCC ASSUMES NO LIABILITY RESULTING FROM USING OR COMING IN CONTACT WITH THIS SUBSTANCE.

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