

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.



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
FOR INFORMATION CALL: AFTER-HOURS CONTACT:	MANASSAS, VA 20108 800-638-6597 or 703-365-2700 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 - CO	OMPOSITION/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: Skin: Ingestion: Inhalation:	May cause irritation of the eye. May cause skin irritation. May be harmful if swallowed. 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: Advice for Firefighters:	Use media appropriate for the material that is burning. Wear self-contained breathing apparatus if necessary.
SECTION 6 -	ACCIDENTAL RELEASE MEASURES
Personal Precautions and Protective Equipment: Environmental Precautions: Methods for Clean Up:	Refer to section 8 for appropriate personal protection. No special environmental precautions are required. 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: Engineering Controls: Ventilation:	Not listed on the OSHA Occupational Chemical database. Eye wash stations are required. Area ventilation is generally adequate.
Personal Protective Equipme Respiratory: Hand:	ent: Respirator is not required. Chemical resistant gloves required.



Eye: Clothing:	Safety glasses or goggles required. Laboratory coat recommended.
olotining.	
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 40	

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 nhalation LC50: No data available



OSHA: SECTION 12 -	not listed
IARC:	not listed
NTP:	not listed
Carcinogenicity	
Teratogeniticity:	No data available
Reproductive toxicity:	No data available
Carcinogenicity:	No data available
Germ cell mutagenicity:	No data available
(Respiration or Skin):	No data available
Sensitization	
Eye damage:	No data available
Skin corrosion:	No data available
Chronic toxicity:	No data available
Other:	No data available
Dermal LD50:	No data available

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

N/A
None.
Non-hazardous for transport.
Non-hazardous for transport.
Non-hazardous for transport.

SECTION 15 -

REGULATORY INFORMATION

SARA 302 Components: No SARA 313 Components: Th

No chemicals in this product are subject to SARA Title III, Section 302. 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.

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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SECTION 1 - SUBS	TANCE IDENTITY AND COMPANY INFORMATION
Product Name: ATCC Catalog #: CAS #:	Fetal Bovine Serum PCS-999-010
COMPANY INFORMATION:	AMERICAN TYPE CULTURE COLLECTION PO BOX 1549 MANASSAS, MA 20108
FOR INFORMATION CALL: AFTER-HOURS CONTACT:	MANASSAS, VA 20108 800-638-6597 or 703-365-2700 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 - C	OMPOSITION/INFORMATION ON INGREDIENTS
Principal Components: Composition: Synonym:	Fetal Bovine Serum CAS number: N/A The item formulation is 100% fetal bovine serum. Fetal Bovine Serum, Fetal Calf Serum, FCS
SECTION 4 -	FIRST AID MEASURES
Potential Health Effects: Eye: Skin: Ingestion: Inhalation:	May cause irritation of the eye. May cause skin irritation. May be harmful if swallowed. 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.



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
	Use media appropriate for the material that is burning.
	Wear self-contained breathing apparatus if necessary.
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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 - EXPO	OSURE CONTROLS/PERSONAL PROTECTION
Exposure limits:	Not listed on the OSHA Occupational Chemical database.
	Eye wash stations are required.
Ventilation:	Area ventilation is generally adequate.
Personal Protective Equipmen	
	Respirator is not required.
	Chemical resistant gloves required.
	Safety glasses or goggles required.
Clothing:	Laboratory coat recommended.
General Hygiene Measures:	Wash hands thoroughly after handling.
SECTION 9 - F	PHYSICAL AND CHEMICAL PROPERTIES



Tan or straw colored, frozen liquid.

Appearance.	
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 -

Appearance⁻

STABILITY AND REACTIVITY

Reactivity:	Ν
Chemical stability:	St
Possible hazardous reactions:	Ν
Conditions to be avoided:	N
Incompatible materials:	St
Hazardous decomposition products:	С

No data available Stable under recommended storage and usage conditions. No data available No data available Strong oxidizing agents s: Carbon oxides may be released in a fire.

SECTION 11 -

Sensitization

TOXICOLOGICAL INFORMATION

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

Oral LD50:
Inhalation LC50:
Dermal LD50:
Other:No data available
No data available
No data availableChronic toxicity:
Skin corrosion:
Eye damage:No data available
No data available



(Respiration or Skin):	No data available
Germ cell mutagenicity:	No data available
Reproductive toxicity:	No data available
Teratogeniticity:	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 contain	ers: No specific restrictions on waste container type.
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Appropriate Method of Dispo	
Appropriate method of Dispo	environmental regulations.
SECTION 14 -	
SECTION 14 -	environmental regulations. TRANSPORT INFORMATION
SECTION 14 - UN number:	environmental regulations.
SECTION 14 -	environmental regulations. TRANSPORT INFORMATION
SECTION 14 - UN number: Proper Shipping Name:	environmental regulations. TRANSPORT INFORMATION N/A None.
SECTION 14 - UN number: Proper Shipping Name: DOT:	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport.
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG:	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport.
SECTION 14 - UN number: Proper Shipping Name: DOT:	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport.
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG:	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport.
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 -	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components:	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport.
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 -	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport.
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components:	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. No chemicals in this product are subject to SARA Title III, Section 302. This product does not contain chemical components with known CAS numbers that
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components:	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. No chemicals in this product are subject to SARA Title III, Section 302. 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 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components:	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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.
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components:	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. No chemicals in this product are subject to SARA Title III, Section 302. 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 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components: SARA 311/312:	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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.
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components: SARA 311/312: Massachusetts	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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. Not a hazardous substance or mixture
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components: SARA 311/312: Massachusetts	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. No chemicals in this product are subject to SARA Title III, Section 302. 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.
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components: SARA 311/312: Massachusetts Right to Know Components:	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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. Not a hazardous substance or mixture
SECTION 14 - UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components: SARA 311/312: Massachusetts Right to Know Components: Pennsylvania	environmental regulations. TRANSPORT INFORMATION N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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. Not a hazardous substance or mixture



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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SECTION 1 - SUBS	TANCE IDENTITY AND COMPANY INFORMATION
Product Name: ATCC Catalog #: CAS #:	rh EGF PCS-999-018
COMPANY INFORMATION:	AMERICAN TYPE CULTURE COLLECTION PO BOX 1549
FOR INFORMATION CALL: AFTER-HOURS CONTACT:	MANASSAS, VA 20108 800-638-6597 or 703-365-2700 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: Ingestion:	May cause skin irritation. 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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SAFETY DATA SHEET

Dermal Exposure: Eye 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. 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: Environmental Precautions: Methods for Clean Up:	Refer to section 8 for appropriate personal protection. No special environmental precautions are required. 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: Engineering Controls: Ventilation:	Not listed on the OSHA Occupational Chemical database. Eye wash stations are required. Area ventilation is generally adequate.	
Personal Protective Equipme 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
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Appearance:	Frozen, clear liquid above ~0º 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 toxicityNo data availableOral LD50:No data availableInhalation LC50:No data availableDermal LD50:No data availableOther:No data available

Chronic toxicity:

No data available



Skin corrosion: Eye damage:	No data available 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
Teratogeniticity:	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

N/A
None.
Non-hazardous for transport.
Non-hazardous for transport.
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

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

 CaliforniaProp. 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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SECTION 1 - SUBSTANCE IDENTITY AND COMPANY INFORMATION

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

- COMPANY INFORMATION:AMERICAN TYPE CULTURE COLLECTION
PO BOX 1549
MANASSAS, VA 20108FOR INFORMATION CALL:800-638-6597 or 703-365-2700AFTER-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	SECTION 3 -	COMPOSITION/INFORMATION ON INGREDIENTS	
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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.



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 \vec{r}
Flash point:	a fire. 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
r recautions for handling.	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 - EX	POSURE 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 Equipme	
Respiratory:	Respirator is not required.
Hand:	Chemical resistant gloves required.



Eye: Clothing:	Safety glasses or goggles required. Laboratory coat recommended.
General Hygiene Measures:	Wash hands thoroughly after handling.
SECTION 9 -	PHYSICAL AND CHEMICAL PROPERTIES
A	Frence clear liquid chave 00 C
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:	$\sim 0^{\circ} \text{C}$
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



No data available

SAFETY DATA SHEET

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
Teratogeniticity:	No data available
Carcinogenicity	
NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 -

Other:

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: Appropriate disposal containers: Appropriate Method of Disposal: Not listed as a hazardous waste. No specific restrictions on waste container type. 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.



SECTION 16 -	OTHER INFORMATION
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.
New Jersey Right to Know Components:	No components are subject to New Jersey Right to Know Act.
Pennsylvania Right to Know Components:	Water CAS number: 7732-18-5
Massachusetts Right to Know Components:	No components are subject to Massachusetts Right to Know Act.
SARA 311/312:	Not a hazardous substance or mixture

DATE REVISED: JUNE 1, 2016

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SECTION 1 - SUBS	TANCE IDENTITY AND COMPANY INFORMATION
Product Name:	L-Glutamine
Floutet Name.	
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
Floduct use.	
SECTION 2 -	HAZARDS IDENTIFICATION
Hazardous Components:	Not a hazardous substance or mixture
SECTION 3 - C	OMPOSITION/INFORMATION ON INGREDIENTS
SECTION 3 - C Principal Components:	L-Glutamine CAS number: 58-85-9
Principal Components:	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5
	L-Glutamine CAS number: 58-85-9
Principal Components:	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5 The item formulation is a solution of L-Glutamine and water. The solution contains 1-
Principal Components: Composition:	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5 The item formulation is a solution of L-Glutamine and water. The solution contains 1- 5% L-Glutamine in water.
Principal Components: Composition: Synonym: SECTION 4 -	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5 The item formulation is a solution of L-Glutamine and water. The solution contains 1- 5% L-Glutamine in water. Glutamine, Levoglutamine, L-(+) Glutamine, Cebrogen, Glavamin, Stimulina
Principal Components: Composition: Synonym: SECTION 4 - Potential Health Effects:	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5 The item formulation is a solution of L-Glutamine and water. The solution contains 1- 5% L-Glutamine in water. Glutamine, Levoglutamine, L-(+) Glutamine, Cebrogen, Glavamin, Stimulina FIRST AID MEASURES
Principal Components: Composition: Synonym: SECTION 4 - Potential Health Effects: Eye:	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5 The item formulation is a solution of L-Glutamine and water. The solution contains 1- 5% L-Glutamine in water. Glutamine, Levoglutamine, L-(+) Glutamine, Cebrogen, Glavamin, Stimulina FIRST AID MEASURES May cause irritation of the eye.
Principal Components: Composition: Synonym: SECTION 4 - Potential Health Effects: Eye: Skin:	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5 The item formulation is a solution of L-Glutamine and water. The solution contains 1- 5% L-Glutamine in water. Glutamine, Levoglutamine, L-(+) Glutamine, Cebrogen, Glavamin, Stimulina FIRST AID MEASURES May cause irritation of the eye. May cause skin irritation.
Principal Components: Composition: Synonym: SECTION 4 - Potential Health Effects: Eye:	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5 The item formulation is a solution of L-Glutamine and water. The solution contains 1- 5% L-Glutamine in water. Glutamine, Levoglutamine, L-(+) Glutamine, Cebrogen, Glavamin, Stimulina FIRST AID MEASURES May cause irritation of the eye. May cause skin irritation. May be harmful if swallowed. May be harmful if inhaled. Material may be irritating to mucous membranes and upper
Principal Components: Composition: Synonym: SECTION 4 - Potential Health Effects: Eye: Skin: Ingestion:	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5 The item formulation is a solution of L-Glutamine and water. The solution contains 1- 5% L-Glutamine in water. Glutamine, Levoglutamine, L-(+) Glutamine, Cebrogen, Glavamin, Stimulina FIRST AID MEASURES May cause irritation of the eye. May cause skin irritation. May be harmful if swallowed.
Principal Components: Composition: Synonym: SECTION 4 - Potential Health Effects: Eye: Skin: Ingestion: Inhalation:	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5 The item formulation is a solution of L-Glutamine and water. The solution contains 1- 5% L-Glutamine in water. Glutamine, Levoglutamine, L-(+) Glutamine, Cebrogen, Glavamin, Stimulina FIRST AID MEASURES May cause irritation of the eye. May cause skin irritation. May be harmful if swallowed. May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract. If swallowed, rinse out mouth with water provided person is conscious. Call a
Principal Components: Composition: Synonym: SECTION 4 - Potential Health Effects: Eye: Skin: Ingestion: Inhalation: First aid measures: Oral Exposure:	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5 The item formulation is a solution of L-Glutamine and water. The solution contains 1- 5% L-Glutamine in water. Glutamine, Levoglutamine, L-(+) Glutamine, Cebrogen, Glavamin, Stimulina FIRST AID MEASURES May cause irritation of the eye. May cause skin irritation. May be harmful if swallowed. May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract. If swallowed, rinse out mouth with water provided person is conscious. Call a physician.
Principal Components: Composition: Synonym: SECTION 4 - Potential Health Effects: Eye: Skin: Ingestion: Inhalation: First aid measures:	L-Glutamine CAS number: 58-85-9 Water CAS number: 7732-18-5 The item formulation is a solution of L-Glutamine and water. The solution contains 1- 5% L-Glutamine in water. Glutamine, Levoglutamine, L-(+) Glutamine, Cebrogen, Glavamin, Stimulina FIRST AID MEASURES May cause irritation of the eye. May cause skin irritation. May be harmful if swallowed. May be harmful if inhaled. Material may be irritating to mucous membranes and upper respiratory tract. If swallowed, rinse out mouth with water provided person is conscious. Call a



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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	Defende continu 0 for encounter a concerct set to the
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 - EX	POSURE CONTROLS/PERSONAL PROTECTION
F	
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 Equipme	
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



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 ~0° C Freezing point: Solubility: Completely soluble in water Boiling point: ~100° C Flash point: No data available Evaporation rate: No data available Flammability: Not flammable Partition coefficient: No data available n-octanol/water: 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 -

Sensitization

TOXICOLOGICAL INFORMATION

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

Oral LD50:No data availableInhalation LC50:No data availableDermal LD50:No data availableOther:No data availableChronic toxicity:No data availableSkin corrosion:No data availableEye damage:No data available



(Respiration or Skin):	No data available
Germ cell mutagenicity:	No data available
Reproductive toxicity:	No data available
Teratogeniticity:	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:	
Appropriate disposal containers:	
Appropriate Method of Disposal:	

Not listed as a hazardous waste. No specific restrictions on waste container type. Clean up and dispose of waste in accordance with all federal, state and local environmental regulations.

SECTION 14 -

TRANSPORT INFORMATION

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 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

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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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SECTION 1 - SUBS	TANCE IDENTITY AND COMPANY INFORMATION
Product Name: ATCC Catalog #: CAS #:	rh FGF-b PCS-999-020
COMPANY INFORMATION:	AMERICAN TYPE CULTURE COLLECTION PO BOX 1549
FOR INFORMATION CALL: AFTER-HOURS CONTACT:	MANASSAS, VA 20108 800-638-6597 or 703-365-2700 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
Potontial Hoalth Efforts	
Potential Health Effects: Eye: Skin: Ingestion: Inhalation:	May cause irritation of the eye. May cause skin irritation. May be harmful if swallowed. 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
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.



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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 - EX	POSURE 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 Equipme	ent:
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



Frozen, clear liquid above ~0° C.

Appearance:	F
Upper/lower flammability	
or Explosive limits:	N
Odor:	0
Vapor pressure:	N
Odor threshold:	N
Vapor density:	N
pH:	N
Relative density:	N
Freezing point:	~
Solubility:	С
Boiling point:	~
Flash point:	N
Evaporation rate:	N
Flammability:	N
Partition coefficient:	
n-octanol/water:	N
Auto-ignition temperature:	N
Viscosity:	N

No data available Odorless No data available lo data available lo data available Veutral lo data available -0° C Completely soluble in water 100° C No data available No data available Not flammable lo data available lo data available No data available

SECTION 10 -

STABILITY AND REACTIVITY

Reactivity:
Chemical stability:
Possible hazardous reactions:
Conditions to be avoided:
Incompatible materials:
Hazardous decomposition products:

No data available Stable under recommended storage and usage conditions. No data available No data available Strong oxidizing agents ts: Carbon oxides may be released in a fire.

SECTION 11 -

Sensitization

TOXICOLOGICAL INFORMATION

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

Oral LD50:No data availableInhalation LC50:No data availableDermal LD50:No data availableOther:No data availableChronic toxicity:No data availableSkin corrosion:No data availableEye damage:No data available



(Respiration or Skin):	No data available
Germ cell mutagenicity:	No data available
Reproductive toxicity:	No data available
Teratogeniticity:	No data available
Carcinogenicity	
NTP:	not listed
IARC:	not listed
OSHA:	not listed
USHA.	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 contain	ers: No specific restrictions on waste container type.
Appropriate Method of Dispo	sal: Clean up and dispose of waste in accordance with all federal, state and local
	environmental regulations.
	5
SECTION 14 -	TRANSPORT INFORMATION
UN number:	N/A
UN number: Proper Shipping Name:	N/A None.
UN number: Proper Shipping Name: DOT:	N/A None. Non-hazardous for transport.
UN number: Proper Shipping Name: DOT: IMDG:	N/A None. Non-hazardous for transport. Non-hazardous for transport.
UN number: Proper Shipping Name: DOT:	N/A None. Non-hazardous for transport.
UN number: Proper Shipping Name: DOT: IMDG:	N/A None. Non-hazardous for transport. Non-hazardous for transport.
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 -	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components:	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport.
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 -	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components:	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. This product does not contain chemical components with known CAS numbers that
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components:	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. This product does not contain chemical components with known CAS numbers that exceed the threshold (De Minimus) reporting levels established by SARA Title III,
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components:	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. This product does not contain chemical components with known CAS numbers that
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components:	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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.
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components: SARA 311/312: Massachusetts	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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. Not a hazardous substance or mixture
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components: SARA 311/312: Massachusetts	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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.
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components: SARA 311/312: Massachusetts Right to Know Components:	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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. Not a hazardous substance or mixture
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components: SARA 311/312: Massachusetts Right to Know Components: Pennsylvania	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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. Not a hazardous substance or mixture No components are subject to Massachusetts Right to Know Act.
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components: SARA 311/312: Massachusetts Right to Know Components: Pennsylvania	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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. Not a hazardous substance or mixture
UN number: Proper Shipping Name: DOT: IMDG: IATA: SECTION 15 - SARA 302 Components: SARA 313 Components: SARA 311/312: Massachusetts Right to Know Components: Pennsylvania	N/A None. Non-hazardous for transport. Non-hazardous for transport. Non-hazardous for transport. REGULATORY INFORMATION No chemicals in this product are subject to SARA Title III, Section 302. 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. Not a hazardous substance or mixture No components are subject to Massachusetts Right to Know Act.



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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