SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name:	LifeFactors [™] UroLife [™]
Product Number:	LS-1115
Company Address:	Lifeline Cell Technology 8415 Progress Drive, Suite T Frederick, MD 21701
Technical Phone: Fax: Emergency Phone:	(877) 845-7787 (301) 845-2405 (877) 845-7787
Product use:	Cell/Tissue culture

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Principal Components:

LifeFactors[™] UroLife[™] Kit, LS-1091:

rh Insulin, 0.5 mL, LS-1004 rh EGF, 0.5 mL, LS-1015 L-Glutamine (200 mM), 15 mL, LS-1031 Epinephrine, 0.5 mL, LS-1032 Apo Transferrin, 0.5 mL, LS-1033 rh TGF- α , 0.5 mL, LS-1034 Extract P, 2 mL, LS-1037 Hydrocortisone hemisuccinate, 0.5 mL, LS-1039 rh KGF- α , 1 mL, LS-1059 Gentamicin-Amphotericin B, 0.5 mL, LS-1104

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

Preparation information:

Prepared by:	Quality Department
Date Prepared:	February 18, 2021
Replaced Version date:	May 9, 2019

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name:	rh Insulin
Product Number:	LS-1004
Company Address:	Lifeline Cell Technology 8415 Progress Drive, Suite T Frederick, MD 21701
Technical Phone: Fax: Emergency Phone:	(877) 845-7787 (443) 393-0393 (877) 845-7787
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.

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 AND 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 / CHEMICAL PROPERTIES

Appearance: Frozen, clear liquid above ~0° C.

Upper/lower flammability or Explosive limits:No data availableOdor:OdorlessVapor pressure:No data availableOdor 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	
Upper/lower flam	mability or explosive limits:	No data available
Relative density:	~1 at 20° C	
Partition coefficien	nt: n-octanol/water:	No data available
Auto-ignition temp	perature: No data available	
Viscosity:	No data available	

SECTION 10 – STABILITY AND REACTIVITY

Reactivity:No data availableChemical stability:Stable under recommended storage and usage conditions.Possible hazardous reactions:No data availableConditions to be avoided:No data availableIncompatible materials:Strong oxidizing agentsHazardous decompositionproducts:Carbon oxides may be released in a fire.

SECTION 11 – 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 available 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 mutage	nicity: No data available	
Carcinogenicity:	No data available	
Reproductive toxi	city: No data available	
Teratogeniticity:	No data available	

Carcinogenicity

NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:No data availablePersistence/Degradability:No data availableBioaccumulation Potential:No data availableMobility 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 andlocal environmental regulations.Control of the second second

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 numbersthat 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:WaterCAS 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

Preparation information:

Prepared by:	Quality Department
Date Prepared:	January 22, 2015
Replaced Version date:	July 30, 2012

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name:	rh EGF
Product Number:	LS-1015
Company Address:	Lifeline Cell Technology 8415 Progress Drive, Suite T Frederick, MD 21701
Technical Phone: Fax: Emergency Phone:	(877) 845-7787 (443) 393-0393 (877) 845-7787
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 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 AND 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 / CHEMICAL PROPERTIES

Appearance: Frozen, clear liquid above ~0° C.

Upper/lower flammability or Explosive limits:No data availableOdor:OdorlessVapor pressure:No data availableOdor 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	
Upper/lower flammability or explosive limits: No data available		
Partition coefficient: n-octanol/water: No data available		
Auto-ignition tem	perature: No data available	
Viscosity:	No data available	

SECTION 10 – STABILITY AND REACTIVITY

Reactivity:No data availableChemical stability:Stable under recommended storage and usage conditions.Possible hazardous reactions:No data availableConditions to be avoided:No data availableIncompatible materials:Strong oxidizing agentsHazardous decompositionproducts:Carbon oxides may be released in a fire.

SECTION 11 – 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 available No data available	
Chronic toxicity:	No data available	
Skin corrosion: Eye damage:	No data available	
Sensitization (Respiration or Skin): No data available		
0	nicity: No data available	
Carcinogenicity:		
Reproductive toxic	city: No data available	
Teratogeniticity:	No data available	

Carcinogenicity

NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:No data availablePersistence/Degradability:No data availableBioaccumulation Potential:No data availableMobility 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 andlocal environmental regulations.Incomposite of waste in accordance with all federal, state and

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 numbersthat 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.

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

Preparation information:

Prepared by:	Quality Department
Date Prepared:	February 10, 2015
Replaced Version date:	July 30, 2012

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name:	L-Glutamine [200 mM]
Product Number:	LS-1031
Company Address:	Lifeline Cell Technology 8415 Progress Drive, Suite T Frederick, MD 21701
Technical Phone: Fax: Emergency Phone:	(877) 845-7787 (443) 393-0393 (877) 845-7787
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 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 AND 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 / CHEMICAL PROPERTIES

Appearance: Frozen, liquid with white precipitate above ~0° C, clear liquid above ~20° C.

Upper/lower flammability or Explosive limits:No data availableOdor:OdorlessVapor pressure:No data availableOdor 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	
Upper/lower flam	mability or explosive limits:	No data available
Relative density:	No data available	
Partition coefficient	nt: n-octanol/water:	No data available
Auto-ignition tem	perature: No data available	
Viscosity:	No data available	

SECTION 10 – STABILITY AND REACTIVITY

Reactivity:No data availableChemical stability:Stable under recommended storage and usage conditions.Possible hazardous reactions:No data availableConditions to be avoided:No data availableIncompatible materials:Strong oxidizing agentsHazardous decompositionproducts:Carbon oxides may be released in a fire.

SECTION 11 – 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 available No data available		
Chronic toxicity:	No data available		
Skin corrosion: Eve damage:			
Sensitization (Respiration or Skin): No data available			
Germ cell mutage	nicity: No data available		
Carcinogenicity:	No data available		
Reproductive toxi	city: No data available		
Teratogeniticity:	No data available		

Carcinogenicity

NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:No data availablePersistence/Degradability:No data availableBioaccumulation Potential:No data availableMobility in Soil:No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA hazardous waste code: Appropriate disposal containers: Appropriate Method of Disposal: local environmental regulations.

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

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 numbersthat 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
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

Preparation information:

Prepared by:	Quality Department
Date Prepared:	January 23, 2015
Replaced Version date:	July 30, 2012

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name:	(-)Epinephrine (+)Bitartrate
Product Number:	LS-1032
Company Address:	Lifeline Cell Technology 8415 Progress Drive, Suite T Frederick, MD 21701
Technical Phone: Fax: Emergency Phone:	(877) 845-7787 (443) 393-0393 (877) 845-7787
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:	(-)Epinephrine (+)Bitartrate	CAS number:	51-42-3
	Water	CAS number:	7732-18-5

Composition: The item formulation is a mixture of Heparin Sulfate sodium salt and water. With the exception of purified water, all ingredients are in concentrations of less than 1%.

Synonym: L-Adrenaline (+)-bitartrate salt, 3,4-Dihydroxy-α-(methylamino-methyl)benzyl alcohol Dhydrogen bitartrate salt, L-Adrenaline D-hydrogentartrate, L-Epinephrine D-hydrogentartrate

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 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 AND 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 / CHEMICAL PROPERTIES

Appearance: Frozen, clear liquid above ~0° C. Color change to tan or brown with degradation.

Upper/lower flammability or Explosive limits:No data availableOdor:OdorlessVapor pressure:No data availableOdor 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	
Upper/lower flam	mability or explosive limits:	No data available
Relative density:	~1 at 20° C	
Partition coefficient	nt: n-octanol/water:	No data available
Auto-ignition temperature: No data available		
Viscosity:	No data available	

SECTION 10 – STABILITY AND REACTIVITY

Reactivity:No data availableChemical stability:Stable under recommended storage and usage conditions.Possible hazardous reactions:No data availableConditions to be avoided:No data availableIncompatible materials:Strong oxidizing agentsHazardous decompositionproducts:Carbon oxides may be released in a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute toxicity

Oral LD50: Inhalation LC50: Dermal LD50: Other:	No data availabl No data availabl No data availabl No data availabl	e e		
Chronic toxicity:	No data availabl	e		
Skin corrosion: Eye damage:	No data availabl No data availabl			
Sensitization (Respiration or Skin): No data available				
Germ cell mutage	icity: No data	a available		
Carcinogenicity:	No data availabl	e		
Reproductive toxi	tity: No data	a available		
Teratogeniticity:	No data availabl	e		

Carcinogenicity

NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:No data availablePersistence/Degradability:No data availableBioaccumulation Potential:No data availableMobility 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 andlocal environmental regulations.Incomposite of waste in accordance with all federal, state and

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 numbersthat 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.

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

Preparation information:

Prepared by:	Quality Department
Date Prepared:	February 12, 2015
Replaced Version date:	July 30, 2012

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name:	Apo-Transferrin
Product Number:	LS-1033
Company Address:	Lifeline Cell Technology 8415 Progress Drive, Suite T Frederick, MD 21701
Technical Phone: Fax: Emergency Phone:	(877) 845-7787 (443) 393-0393 (877) 845-7787
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:	Apo-Transferrin	CAS number:	11096-37-0
	Water	CAS number:	7732-18-5

Composition: The item formulation is a mixture of apo-Transferrin and water. With the exception of purified water, all ingredients are in concentrations of less than 1%.

Synonym: Siderophilin

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 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 AND 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 / CHEMICAL PROPERTIES

Appearance: Frozen, clear liquid above ~0° C.

Upper/lower flammability or Explosive limits:No data availableOdor:OdorlessVapor pressure:No data availableOdor 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	
Upper/lower flammability or explosive limits:		No data available
Relative density:	~1 at 20° C	
Partition coefficient	nt: n-octanol/water:	No data available
Auto-ignition temperature: No data available		
Viscosity:	No data available	

SECTION 10 – STABILITY AND REACTIVITY

Reactivity:No data availableChemical stability:Stable under recommended storage and usage conditions.Possible hazardous reactions:No data availableConditions to be avoided:No data availableIncompatible materials:Strong oxidizing agentsHazardous decompositionproducts:Carbon oxides may be released in a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute toxicity

Oral LD50: Inhalation LC50: Dermal LD50: Other:	110 000	available
Chronic toxicity:	No data	available
Skin corrosion: Eye damage:	No data No data	
Sensitization (Respiration or Skin): No data available		
Germ cell mutage	nicity:	No data available
Carcinogenicity:	No data	available
Reproductive toxi	city:	No data available
Teratogeniticity:	No data	available

Carcinogenicity

NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:No data availablePersistence/Degradability:No data availableBioaccumulation Potential:No data availableMobility 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 andlocal environmental regulations.Center of the second s

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 numbersthat 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.

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

Preparation information:

Prepared by:	Quality Department
Date Prepared:	February 12, 2015
Replaced Version date:	July 30, 2012

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name:	rh TGF-α
Product Number:	LS-1034
Company Address:	Lifeline Cell Technology 8415 Progress Drive, Suite T Frederick, MD 21701
Technical Phone: Fax: Emergency Phone:	(877) 845-7787 (443) 393-0393 (877) 845-7787
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:	rh TGF-α	CAS number:	105186-99-0
	Water	CAS number:	7732-18-5

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

Synonym: Transforming Growth Factor- α, TGF-alpha

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 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 AND 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 / CHEMICAL PROPERTIES

Appearance: Frozen, clear liquid above ~0° C.

Upper/lower flammability or Explosive limits:No data availableOdor:OdorlessVapor pressure:No data availableOdor 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	
Upper/lower flammability or explosive limits: 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 availableChemical stability:Stable under recommended storage and usage conditions.Possible hazardous reactions:No data availableConditions to be avoided:No data availableIncompatible materials:Strong oxidizing agentsHazardous decompositionproducts:Carbon oxides may be released in a fire.

SECTION 11 – 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 available No data available
Chronic toxicity:	No data available
Sensitization (Resp Germ cell mutager Carcinogenicity:	No data available piration or Skin): No data available nicity: No data available No data available
Teratogeniticity:	city: No data available No data available

Carcinogenicity

NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:No data availablePersistence/Degradability:No data availableBioaccumulation Potential:No data availableMobility 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 andlocal environmental regulations.Incomposite of waste in accordance with all federal, state and

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 numbersthat 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.

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

Preparation information:

Prepared by:	Quality Department
Date Prepared:	February 12, 2015
Replaced Version date:	July 30, 2012

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name:	Extract-P
Product Number:	LS-1037
Company Address:	Lifeline Cell Technology 8415 Progress Drive, Suite T Frederick, MD 21701
Technical Phone: Fax: Emergency Phone:	(877) 845-7787 (443) 393-0393 (877) 845-7787
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:

Water

CAS number: 7732-18-5

Composition: The item formulation is an extraction of bovine brain tissue (pituitary glands) with salts and water. With the exception of purified water, all ingredients are in concentrations of less than 1%.

Synonym: Bovine Pituitary Extract, BPE

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 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 AND 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 / CHEMICAL PROPERTIES

Appearance: Frozen, red to dark brown, liquid above ~0° C.

Upper/lower flam	mability or Explosive limits:	No data available
Odor:	Slight musky or earthy odor	
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	
Upper/lower flammability or explosive limits: No		No data available
Relative density:	~1 at 20° C	
Partition coefficient	nt: n-octanol/water:	No data available
Auto-ignition temperature: No data available		
Viscosity:	No data available	

SECTION 10 – STABILITY AND REACTIVITY

Reactivity:No data availableChemical stability:Stable under recommended storage and usage conditions.Possible hazardous reactions:No data availableConditions to be avoided:No data availableIncompatible materials:Strong oxidizing agentsHazardous decompositionproducts:Carbon oxides may be released in a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute toxicity

Oral LD50: Inhalation LC50: Dermal LD50: Other:	No data a No data a No data a No data a	available available
Chronic toxicity:	No data a	available
Skin corrosion: Eye damage:	No data a No data a	
Sensitization (Respiration or Skin): No data available		
Germ cell mutage	nicity:	No data available
Carcinogenicity:	No data a	available
Reproductive toxi	city:	No data available
Teratogeniticity:	No data a	available

Carcinogenicity

NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:No data availablePersistence/Degradability:No data availableBioaccumulation Potential:No data availableMobility 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 andlocal environmental regulations.Content of the second second

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 numbersthat 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.

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

Preparation information:

Prepared by:	Quality Department
Date Prepared:	February 12, 2015
Replaced Version date:	July 30, 2012

SECTION 1 - PRODUCT AND COMPANY INFORMATION

Product Name:	Hydrocortisone Hemisuccinate
Product Number:	LS-1039
Company Address:	Lifeline Cell Technology 8415 Progress Drive, Suite T Frederick, MD 21701
Technical Phone: Fax: Emergency Phone:	(877) 845-7787 (443) 393-0393 (877) 845-7787
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:	Hydrocortisone hemisuccinate	CAS number:	125-04-2
	Water	CAS number:	7732-18-5

Composition: The item formulation is a vital corticosteroid hormone. With the exception of purified water, all ingredients are in concentrations of less than 0.1%.

Synonym: Hydrocortisone 21-Hemisuccinate Sodium, A-Hydrocort, Buccalsone, Corlan, Cortisol Hemisuccinate Sodium Salt, Cortisol 21-(Hydrogen Succinate), Cortisol Sodium Hemisuccinate, Cortisol Sodium Succinate, Cortisol 21-Sodium Succinate, EF-Cortelan Soluble, EMI-Corlan, Flebocortid, Hycorace, Hydrocortisone Sodium Succinate, Hydrocortisone 21-Sodium Succinate, Intracort, Nordicort, Oralsone, Sodium Hydrocortisone Succinate, Sodium Hydrocortisone 21-Succinate, Solucortef

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 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 AND 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: Hand:	Respirator is not required.
Eye: Clothing:	Chemical resistant gloves required. Safety glasses or goggles required. Laboratory coat recommended.
General Hygiene Measures:	Wash hands thoroughly after handling.

SECTION 9 - PHYSICAL / CHEMICAL PROPERTIES

Appearance: Frozen, clear liquid above ~0° C.

Upper/lower flam	mability 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	
Upper/lower flammability or explosive limits: No data available		No data available
Relative density:	~1 at 20° C	
Partition coefficient	nt: n-octanol/water:	No data available
Auto-ignition temperature: No data available		
Viscosity:	No data available	

SECTION 10 – STABILITY AND REACTIVITY

Reactivity:No data availableChemical stability:Stable under recommended storage and usage conditions.Possible hazardous reactions:No data availableConditions to be avoided:No data availableIncompatible materials:Strong oxidizing agentsHazardous decompositionproducts: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 availableInhalation LC50:No data availableDermal LD50:No data availableOther:LD50 intraperitoneal – rat - 1,320 mg/kg

Chronic toxicity: This product is a glucocorticoid. Repeated exposure can cause: damage to eyes, disturbances of electrolyte balance, osteoporosis and spontaneous fractures, hyperglycemia, delayed wound healing, increased liability to infection, acne, weight gain, emotional instability and neurological disturbances.

Skin corrosion:No data availableEye damage:No data availableSensitization (Respiration or Skin): No data availableGerm cell mutagenicity:No data availableCarcinogenicity:Some glucocorticoid show carcinogenic or teratogenetic activity.

Reproductive toxicity:No data availableTeratogeniticity:Some glucocorticoid show carcinogenic or teratogenetic activity

Carcinogenicity

NTP:not listedIARC:not listedOSHA:not listed

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:No data availablePersistence/Degradability:No data availableBioaccumulation Potential:No data availableMobility 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: local environmental regulations. 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

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 numbersthat exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.SARA 311/312:Chronic health hazard

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

Pennsylvania Right to Know Components:		
Hydrocortisone hemisuccinate	CAS number:	125-04-2
Water	CAS number:	7732-18-5

New Jersey Right to Know Com	ponents:	
Hydrocortisone hemisuccinate	CAS number:	125-04-2

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

Preparation information:

Prepared by:	Quality Department
Date Prepared:	February 12, 2015
Replaced Version date:	July 30, 2012

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name:	rh KGF
Product Number:	LS-1059
Company Address:	Lifeline Cell Technology 8415 Progress Drive, Suite T Frederick, MD 21701
Technical Phone: Fax: Emergency Phone:	(877) 845-7787 (443) 393-0393 (877) 845-7787
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 KGF	CAS number:	N/A
	Human serum albumin (HSA)	CAS number:	70024-90-7
	Water	CAS number:	7732-18-5

Composition: The item formulation is a mixture of recombinant human KGF (rh KGF), water and stabilizing agents. With the exception of purified water and 1-3% HSA, all ingredients are in concentrations of less than 1%.

Synonym: Keratinocyte Growth Factor, FGF-7, Fibroblast Growth Factor-7

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 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 AND 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 / CHEMICAL PROPERTIES

Appearance: Frozen, clear liquid above $\sim 0^{\circ}$ 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	
Upper/lower flammability or explosive limits: No data available		
Relative density:	~1 at 20° C	
Partition coefficient	nt: n-octanol/water:	No data available
Auto-ignition temperature: No data available		
Viscosity:	No data available	

SECTION 10 – STABILITY AND REACTIVITY

Reactivity:No data availableChemical stability:Stable under recommended storage and usage conditions.Possible hazardous reactions:No data availableConditions to be avoided:No data availableIncompatible materials:Strong oxidizing agentsHazardous 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: Inhalation LC50: Dermal LD50: Other:	
Chronic toxicity:	No data available
Skin corrosion:	No data available

Eye damage:No data availableSensitization (Respiration or Skin):No data availableGerm cell mutagenicity:No data availableCarcinogenicity:No data availableReproductive toxicity:No data availableTeratogeniticity:No data available

Carcinogenicity

NTP:	not listed
IARC:	not listed
OSHA:	not listed

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity:No data availablePersistence/Degradability:No data availableBioaccumulation Potential:No data availableMobility 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 hazardouAppropriate disposal containers:No specific restrictionsAppropriate Method of Disposal:Clean up and dispose olocal environmental regulations.Clean up and dispose o

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

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 numbersthat 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:

Human serum albumin (HSA)CAS number:WaterCAS number:

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

Preparation information:

Prepared by:	Quality Department
Date Prepared:	February 13, 2015
Replaced Version date:	July 30, 2012

Disclaimer: This information is furnished without warranty, expressed or implied, except that it is accurate to the best knowledge of Lifeline Cell Technology. The data on this sheet relate only to the specific materials designated herein and shall only be used as a guide. Lifeline Cell Technology assumes no legal responsibility for the use or reliance upon these data.

70024-90-7 7732-18-5

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name:	Gentamicin-Amphotericin B
Product Number:	LS-1104
Company Address:	Lifeline Cell Technology 8415 Progress Drive, Suite T Frederick, MD 21701
Technical Phone: Fax: Emergency Phone:	(877) 845-7787 (443) 393-0393 (877) 845-7787
Product use:	Cell testing reagent

SECTION 2 – HAZARDS IDENTIFICATION

Hazard Identification:

GHS Classification

Respiratory sensitization (Category 1), H334 Skin sensitization (Category 1), H317 Eye irritation (Category 2A), H361 Specific target organ toxicity – single exposure (Category 3), Respiratory system, H335

GHS Label elements including precautionary statements:



Signal word

Pictograms:

Danger

Hazard statements

H315	Cause skin irritation.
H317	May cause allergic skin reaction
H334	May cause allergy or asthma symptoms or breathing difficulty if inhaled
H335	May cause respiratory irritation

Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapors/spray
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace
P280	Wear protective gloves/protective clothing/eye protection/face protection
P285	In case of inadequate ventilation wear respiratory protection
P302+P352	If on skin: Wash with plenty of soap and water

P304+P341	If inhaled: If breathing is difficult, move victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if
	present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P362	Take off contaminated clothing and wash before reuse.
P405	Store locked up
P501	Dispose of contents/container to an approved waste disposal plant

SECTION 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Principal Components:	Gentamicin Sulfate Salt	CAS number:	1405-41-0
	Amphotericin B	CAS number:	1397-89-3
	Water	CAS number:	7732-18-5

Composition: The subject formulation is a mixture of Gentamicin Sulfate, Amphotericin B and stabilizing agents in water.

Hazardous components:

Gentamicin Sulfat	e: CAS #:	1405-41-0	EC #: 215-778-9	
	Concentration:	3-6%		
	Classification:	Resp. Sens. 1; Sl	kin Sens. 1; H317, H334	
Amphotericin B:	CAS #:	1397-89-3	EC #: 215-742-2	
	Concentration:	0.001-0.005%		
	Classification:	Skin Irrit. 2; Eye	e Irrit. 2A; STOT SE 3; H315, H319, H335	5

Synonym: GA

SECTION 4 – FIRST AID MEASURES

First aid measures in case of exposure:

General Advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled: If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

Oral Exposure: If swallowed, rinse out mouth with water. Call a physician.

Dermal Exposure: In case of contact with skin, wash with soap and water. 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.

Most important symptoms and effects, acute or delayed: Refer to section 2 for most important symptoms and effects, acute or delayed.

Recommendations for immediate medical care or treatment: No data available.

SECTION 5 – FIRE FIGHTING MEASURES

General Fire hazard:	Components in this product do not present any special fire hazard. Carbon oxides, nitrogen oxides, sulfur oxides and sodium oxides may be released in a fire.
Extinguishing media:	Use media appropriate for the material that is burning.
Advice for Firefighters:	Wear self-contained breathing apparatus.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Refer to section 8 for appropriate personal protection. Avoid breathing mist, vapors or gas. Ensure adequate ventilation. Evacuate personnel to a safe location in case of accidental release.

Environmental Precautions: Prevent leakage or spillage into the environment. Do not let product enter into drains.

Methods for Clean Up: Use personal protective equipment when cleaning spilled product. Absorb liquid with absorbent material and then place in a closed container for hazardous waste 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: Avoid contact with eyes, skin or clothing. Avoid inhalation of vapor or mist. Product may cause allergic reaction.

Storage: Keep container tightly closed and in the upright position. Store at -20°C or below.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters: Contains no substances with occupational exposure limit values.

Engineering Controls: Handle with good industrial hygiene and safety practices. Wash hands before breaks and at the end of the workday.

Personal Protective Equipment:

Respiratory:	Respirator is not required. Avoid breathing fumes and limit exposure time.	
Hand: Eye: Clothing:	Chemical resistant gloves required. Safety glasses or goggles required. Laboratory coat required.	
General Hygiene Measures:	Wash hands thoroughly after handling.	

SECTION 9 – PHYSICAL / CHEMICAL PROPERTIES

Appearance: Frozen, yellow tinted liquid Upper/lower flammability or Explosive limits: No data available No data available **Odor:** No data available Vapor pressure: Odor threshold: No data available Vapor density: No data available pH: No data available **Relative density:** No data available Freezing point: No data available Soluble in water Solubility: **Boiling point:** No data available Flash point: No data available Evaporation rate: No data available Flammability: Not flammable Upper/lower flammability or explosive limits: No data available **Partition coefficient: n-octanol/water:** No data available Auto-ignition temperature: No data available No data available Viscosity:

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:
 Oxidizing agents, strong acids

 Hazardous decomposition products:
 Carbon oxides, nitrogen oxides, sulfur oxides and sodium oxides may be released in a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity: No data available

Skin corrosion/irritation: No data available

Serious eye damage/irritation: No data available

Respiratory or Skin sensitization: No data available

Germ Cell mutagenicity: No data available

Carcinogenicity

NTP:	not listed
IARC:	not listed
OSHA:	not listed

Reproductive toxicity: No data available

Specific target organ toxicity – single exposure: No data available

Specific target organ toxicity – repeated exposure: No data available

Aspiration hazard: No data available

Additional Information:

RTECS: Not available

Liver - irregularities - Based on human evidence (Streptomycin Sulfate and Amphotericin B).

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity:No data availablePersistence/Degradability:No data availableBioaccumulation Potential:No data availableMobility in Soil:No data available.Expected to be mobile in soil due to high solubility in water.

SECTION 13 – DISPOSAL CONSIDERATIONS

Appropriate disposal of product: Offer surplus product to a licensed disposal company. Dissolve or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner or scrubber.

Appropriate disposal containers: Follow procedure for unused product.

SECTION 14 – TRANSPORT INFORMATION

DOT: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

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 numbersthat exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.SARA 311/312:Acute health hazard, Chronic health hazard

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

Pennsylvania Right to Know Components:

·	0	Water Gentamicin Sulfate Amphotericin B	CAS number: CAS number: CAS number:	7732-18-5 1405-41-0 1397-89-3
New Jersey F	Right to Kno	Dw Components: Gentamicin Sulfate Amphotericin B	CAS number: CAS number:	1405-41-0 1397-89-3

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

Preparation information:

Prepared by:	Quality Department
Date Prepared:	May 25, 2021
Replaced Version date:	May 12, 2017