LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name: LifeFactors[®] ProstaLife™

Product Number: LS-1072

Company Address: Lifeline Cell Technology

8415 Progress Drive, Suite T

Frederick, MD 21701

Technical Phone: (877) 845-7787

Fax: (443) 393-0393

Emergency Phone: (877) 845-7787

Product use: Cell/Tissue culture

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

Principal Components:

LifeFactors® ProstaLifeTM Kit, LS-1072:

Apo Transferrin, 0.5 mL, LS-1033 rhTGF-α, 0.5 mL, LS-1034 rh Insulin, 0.5 mL, LS-1004 Epinephrine, 0.5 mL, LS-1032

L-Glutamine (200 mM), 15 mL, LS-1031

Hydrocortisone hemisuccinate, 0.5 mL, LS-1039

Extract P, 2 mL, LS-1037

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

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

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: (877) 845-7787

Fax: (443) 393-0393

Emergency Phone: (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.

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 available

Odor: Odorless

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: n-octanol/water: No data available

Auto-ignition temperature: No data available

Viscosity: No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage and usage conditions.

Possible hazardous reactions: No data available

Conditions to be avoided: No data available **Incompatible materials:** Strong oxidizing agents

Hazardous decomposition products: Carbon oxides may be released in a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute toxicity

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

Chronic toxicity: No data available

Skin corrosion: No data available **Eye damage:** No data available

Sensitization (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

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: No data available **Persistence/Degradability:** No data available **Bioaccumulation Potential:** No data available

Mobility in Soil: No data available. Expected to be mobile because it is an aqueous solution.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA hazardous waste code: Not listed as a hazardous waste.

Appropriate disposal containers: No specific restrictions on waste container type.

Appropriate Method of Disposal: Clean up and dispose of waste in accordance with all federal, state and

local environmental regulations.

SECTION 14 – TRANSPORT INFORMATION

UN number: N/A **Proper Shipping Name**: None.

DOT: Non-hazardous for transport.IMDG: Non-hazardous for transport.IATA: Non-hazardous for transport.

SECTION 15 – REGULATORY INFORMATION

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

SARA 313 Components: This product does not contain chemical components with known CAS numbers

that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.

SARA 311/312: Not a hazardous substance or mixture

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

Pennsylvania Right to Know Components:

Water CAS number: 7732-18-5

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

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name: $rh TGF-\alpha$

Product Number: LS-1034

Company Address: Lifeline Cell Technology

8415 Progress Drive, Suite T

Frederick, MD 21701

Technical Phone: (877) 845-7787

Fax: (443) 393-0393

Emergency Phone: (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-αCAS number:105186-99-0WaterCAS 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.

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 available

Odor: Odorless

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: n-octanol/water: No data available

Auto-ignition temperature: No data available

Viscosity: No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage and usage conditions.

Possible hazardous reactions: No data available

Conditions to be avoided: No data available **Incompatible materials:** Strong oxidizing agents

Hazardous decomposition products: Carbon oxides may be released in a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute toxicity

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

Chronic toxicity: No data available

Skin corrosion: No data available **Eye damage:** No data available

Sensitization (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

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: No data available **Persistence/Degradability:** No data available **Bioaccumulation Potential:** No data available

Mobility in Soil: No data available. Expected to be mobile because it is an aqueous solution.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA hazardous waste code: Not listed as a hazardous waste.

Appropriate disposal containers: No specific restrictions on waste container type.

Appropriate Method of Disposal: Clean up and dispose of waste in accordance with all federal, state and

local environmental regulations.

SECTION 14 – TRANSPORT INFORMATION

UN number: N/A **Proper Shipping Name**: None.

DOT: Non-hazardous for transport.IMDG: Non-hazardous for transport.IATA: Non-hazardous for transport.

SECTION 15 – REGULATORY INFORMATION

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

SARA 313 Components: This product does not contain chemical components with known CAS numbers

that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.

SARA 311/312: Not a hazardous substance or mixture

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

Pennsylvania Right to Know Components:

Water CAS number: 7732-18-5

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

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

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: (877) 845-7787

Fax: (443) 393-0393

Emergency Phone: (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.

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 available

Odor: Odorless

Vapor density:No data availablepH:No data availableRelative 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: n-octanol/water: No data available

Auto-ignition temperature: No data available

Viscosity: No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage and usage conditions.

Possible hazardous reactions: No data available

Conditions to be avoided: No data available **Incompatible materials:** Strong oxidizing agents

Hazardous decomposition products: Carbon oxides may be released in a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute toxicity

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

Chronic toxicity: No data available

Skin corrosion: No data available **Eye damage:** No data available

Sensitization (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

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SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: No data available **Persistence/Degradability:** No data available **Bioaccumulation Potential:** No data available

Mobility in Soil: No data available. Expected to be mobile because it is an aqueous solution.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA hazardous waste code: Not listed as a hazardous waste.

Appropriate disposal containers: No specific restrictions on waste container type.

Appropriate Method of Disposal: Clean up and dispose of waste in accordance with all federal, state and

local environmental regulations.

SECTION 14 – TRANSPORT INFORMATION

UN number: N/A **Proper Shipping Name**: None.

DOT:Non-hazardous for transport.**IMDG**:Non-hazardous for transport.**IATA**:Non-hazardous for transport.

SECTION 15 – REGULATORY INFORMATION

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

SARA 313 Components: This product does not contain chemical components with known CAS numbers

that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.

SARA 311/312: Not a hazardous substance or mixture

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

Pennsylvania Right to Know Components:

Water CAS number: 7732-18-5

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

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

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: (877) 845-7787

Fax: (443) 393-0393

Emergency Phone: (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 D-hydrogen 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.

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 available

Odor: Odorless

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: n-octanol/water: No data available

Auto-ignition temperature: No data available

Viscosity: No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage and usage conditions.

Possible hazardous reactions: No data available

Conditions to be avoided: No data available **Incompatible materials:** Strong oxidizing agents

Hazardous decomposition products: Carbon oxides may be released in a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute toxicity

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

Chronic toxicity: No data available

Skin corrosion: No data available **Eye damage:** No data available

Sensitization (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

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: No data available **Persistence/Degradability:** No data available **Bioaccumulation Potential:** No data available

Mobility in Soil: No data available. Expected to be mobile because it is an aqueous solution.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA hazardous waste code: Not listed as a hazardous waste.

Appropriate disposal containers: No specific restrictions on waste container type.

Appropriate Method of Disposal: Clean up and dispose of waste in accordance with all federal, state and

local environmental regulations.

SECTION 14 – TRANSPORT INFORMATION

UN number: N/A **Proper Shipping Name**: None.

DOT: Non-hazardous for transport.IMDG: Non-hazardous for transport.IATA: Non-hazardous for transport.

SECTION 15 – REGULATORY INFORMATION

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

SARA 313 Components: This product does not contain chemical components with known CAS numbers

that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.

SARA 311/312: Not a hazardous substance or mixture

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

Pennsylvania Right to Know Components:

Water CAS number: 7732-18-5

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

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

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: (877) 845-7787

Fax: (443) 393-0393

Emergency Phone: (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.

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 available

Odor: Odorless

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 flammability or explosive limits: No data available

Relative density: No data available

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: No data available

Viscosity: No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage and usage conditions.

Possible hazardous reactions: No data available

Conditions to be avoided: No data available **Incompatible materials:** Strong oxidizing agents

Hazardous decomposition products: Carbon oxides may be released in a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute toxicity

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

Chronic toxicity: No data available

Skin corrosion: No data available **Eye damage:** No data available

Sensitization (Respiration or Skin): No data available

Germ cell mutagenicity: No data available

Carcinogenicity: No data available

Reproductive toxicity: No data available

Teratogeniticity: No data available

Carcinogenicity

SECTION 12 – ECOLOGICAL INFORMATION

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

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA hazardous waste code: Not listed as a hazardous waste.

Appropriate disposal containers: No specific restrictions on waste container type.

Appropriate Method of Disposal: Clean up and dispose of waste in accordance with all federal, state and

local environmental regulations.

SECTION 14 – TRANSPORT INFORMATION

UN number: N/A **Proper Shipping Name**: None.

DOT:Non-hazardous for transport.IMDG:Non-hazardous for transport.IATA:Non-hazardous for transport.

SECTION 15 – REGULATORY INFORMATION

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

SARA 313 Components: This product does not contain chemical components with known CAS numbers

that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.

SARA 311/312: Not a hazardous substance or mixture

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

Pennsylvania Right to Know Components:

L-Glutamine CAS number: 58-85-9 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

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

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: (877) 845-7787

Fax: (443) 393-0393

Emergency Phone: (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, 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: 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 available

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: n-octanol/water: No data available

Auto-ignition temperature: No data available

Viscosity: No data available

SECTION 10 – STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage and usage conditions.

Possible hazardous reactions: No data available

Conditions to be avoided: No data available **Incompatible materials:** Strong oxidizing agents

Hazardous decomposition products: Carbon oxides may be released in a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute toxicity

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

Other: 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 available **Eye damage:** No data available

Sensitization (Respiration or Skin): No data available

Germ cell mutagenicity: No data available

Carcinogenicity: Some glucocorticoid show carcinogenic or teratogenetic activity.

Reproductive toxicity: No data available

Teratogeniticity: Some glucocorticoid show carcinogenic or teratogenetic activity

Carcinogenicity

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

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: No data available **Persistence/Degradability:** No data available **Bioaccumulation Potential:** No data available

Mobility in Soil: No data available. Expected to be mobile because it is an aqueous solution.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA hazardous waste code: Not listed as a hazardous waste.

Appropriate disposal containers: No specific restrictions on waste container type.

Appropriate Method of Disposal: Clean up and dispose of waste in accordance with all federal, state and

local environmental regulations.

SECTION 14 – TRANSPORT INFORMATION

UN number: N/A **Proper Shipping Name**: None.

DOT: Non-hazardous for transport.IMDG: Non-hazardous for transport.IATA: Non-hazardous for transport.

SECTION 15 – REGULATORY INFORMATION

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

SARA 313 Components: This product does not contain chemical components with known CAS numbers

that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.

SARA 311/312: 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 Components:

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

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

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: (877) 845-7787

Fax: (443) 393-0393

Emergency Phone: (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.

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 flammability or Explosive limits: No data available

Odor: Slight musky or earthy odor

Vapor density: No data available

pH: Neutral

Relative density: No data available

Freezing point: $\sim 0^{\circ}$ 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: n-octanol/water: No data available

Auto-ignition temperature: No data available

Viscosity: No data available

SECTION 10 - STABILITY AND REACTIVITY

Reactivity: No data available

Chemical stability: Stable under recommended storage and usage conditions.

Possible hazardous reactions: No data available

Conditions to be avoided: No data available **Incompatible materials:** Strong oxidizing agents

Hazardous decomposition products: Carbon oxides may be released in a fire.

SECTION 11 – TOXICOLOGICAL INFORMATION

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

Acute toxicity

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

Chronic toxicity: No data available

Skin corrosion: No data available **Eye damage:** No data available

Sensitization (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

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: No data available **Persistence/Degradability:** No data available **Bioaccumulation Potential:** No data available

Mobility in Soil: No data available. Expected to be mobile because it is an aqueous solution.

SECTION 13 – DISPOSAL CONSIDERATIONS

RCRA hazardous waste code: Not listed as a hazardous waste.

Appropriate disposal containers: No specific restrictions on waste container type.

Appropriate Method of Disposal: Clean up and dispose of waste in accordance with all federal, state and

local environmental regulations.

SECTION 14 – TRANSPORT INFORMATION

UN number: N/A **Proper Shipping Name**: None.

DOT: Non-hazardous for transport.IMDG: Non-hazardous for transport.IATA: Non-hazardous for transport.

SECTION 15 – REGULATORY INFORMATION

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

SARA 313 Components: This product does not contain chemical components with known CAS numbers

that exceed the threshold (De Minimus) reporting levels established by SARA Title III, Section 313.

SARA 311/312: Not a hazardous substance or mixture

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

Pennsylvania Right to Know Components:

Water CAS number: 7732-18-5

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 DepartmentDate Prepared:February 12, 2015Replaced Version date:July 30, 2012