

Safety Data Sheet

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name: LifeFactors™ StemLife™ NSC

Product Number: LS-1105

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™ StemLife™ NSC Kit, LS-1105:

rh EGF, 0.5 mL, LS-1046
L-Alanyl-L-Glutamine (200 mM), 6 mL, LS-1053
NeuraFactor, 10 mL, LS-1106
rh FGF-b, LS-1107
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

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.

Safety Data Sheet

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name: rh EGF

Product Number: LS-1046

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 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.

Safety Data Sheet

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 pressure: No data available

Odor threshold: No data available

Safety Data Sheet

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
Teratogenicity: No data available

Carcinogenicity

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

Safety Data Sheet

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 10, 2015
Replaced Version date: July 30, 2012

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Safety Data Sheet

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name: L-Alanyl-L-Glutamine [200 mM]

Product Number: LS-1053

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-Alanyl-L-Glutamine | CAS number: | 39537-23-0 |
| | Water | CAS number: | 7732-18-5 |

Composition: The item formulation is primarily a solution of L-Alanyl-L-Glutamine and water. The solution contains 1-5% L-Alanyl-L-Glutamine in water.

Synonym: Glutamine-S, Ala-Gln

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.

Safety Data Sheet

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.

Upper/lower flammability or Explosive limits: No data available

Odor: Odorless

Vapor pressure: No data available

Odor threshold: No data available

Safety Data Sheet

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
Teratogenicity: No data available

Carcinogenicity

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

Safety Data Sheet

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 Minimis) 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-Alanyl-L-Glutamine | CAS number: | 39537-23-0 |
| Water | CAS number: | 7732-18-5 |

New Jersey Right to Know Components:

| | | |
|----------------------|-------------|------------|
| L-Alanyl-L-Glutamine | CAS number: | 39537-23-0 |
|----------------------|-------------|------------|

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: April 1, 2015
Replaced Version date: July 30, 2012

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Safety Data Sheet

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name: NeuraFactor

Product Number: LS-1106

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.

Hazards not covered by GHS: This product contains raw material of human source. Each batch of Human Serum Albumin used in this medium was tested and found to be negative for Hepatitis B, Hepatitis C, HIV-1 and HIV-2 by FDA approved methods. These tests cannot offer complete assurance of the absence of these or other infectious agents.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

| | | | |
|------------------------------|---------------------|-------------|-----------|
| Principal Components: | Human Serum Albumin | CAS number: | 125-04-2 |
| | Water | CAS number: | 7732-18-5 |

Composition: The item proprietary formulation containing 1-5% Human Serum Albumin and water. All other components are less than 1% concentration.

Synonym: N/A

SECTION 4 – FIRST AID MEASURES

Potential Health Effects:

Eye: May cause irritation of the eye.

Skin: May cause skin irritation.

Ingestion: May be harmful if swallowed.

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

First aid measures:

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

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

Safety Data Sheet

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

SECTION 5 – FIRE FIGHTING MEASURES

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

Flash point: N/A

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

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

SECTION 6 – ACCIDENTAL RELEASE MEASURES

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

Environmental Precautions: No special environmental precautions are required.

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

SECTION 7 – HANDLING AND STORAGE

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

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

SECTION 8 – EXPOSURE CONTROLS 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 to faint yellow liquid above ~0° C.

Upper/lower flammability or Explosive limits: No data available

Odor: No data available

Safety Data Sheet

Vapor pressure: No data available
Odor threshold: No data available
Vapor density: No data available
pH: No data available
Relative density: No data available
Freezing point: No data available
Solubility: Completely soluble in water
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
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
Teratogenicity: No data available

Carcinogenicity

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

Safety Data Sheet

SECTION 12 – ECOLOGICAL INFORMATION

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

SECTION 13 – DISPOSAL CONSIDERATIONS

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

SECTION 14 – TRANSPORT INFORMATION

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

SECTION 15 – REGULATORY INFORMATION

SARA 302 Components: No chemicals in this product are subject to SARA Title III, Section 302.
SARA 313 Components: This product does not contain chemical components with known CAS numbers that exceed the threshold (De Minimis) 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 | CAS number: | 125-04-2 |
| 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: May 9, 2019
Replaced Version date: NA

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Safety Data Sheet

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

SECTION 1 – PRODUCT AND COMPANY INFORMATION

Product Name: rh FGF-b

Product Number: LS-1107

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 FGF-b | CAS number: | 106096-93-9 |
| | Water | CAS number: | 7732-18-5 |

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

Synonym: Fibroblast Growth Factors-basic, bFGF, FGF-2

SECTION 4 – FIRST AID MEASURES

Potential Health Effects:

Eye: May cause irritation of the eye.

Skin: May cause skin irritation.

Ingestion: May be harmful if swallowed.

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

First aid measures:

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

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

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.

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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 pressure: No data available

Odor threshold: No data available

Safety Data Sheet

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 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
Teratogenicity: No data available

Carcinogenicity

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

Safety Data Sheet

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: May 8, 2019
Replaced Version date: NA

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.

Safety Data Sheet

LIFELINE CELL TECHNOLOGY SAFETY DATA SHEET

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: (877) 845-7787

Fax: (443) 393-0393

Emergency Phone: (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:

Pictograms:



Signal word 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 |

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| | |
|----------------|---|
| 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 Sulfate: CAS #: 1405-41-0 EC #: 215-778-9
Concentration: 3-6%
Classification: Resp. Sens. 1; Skin Sens. 1; H317, H334

Amphotericin B: CAS #: 1397-89-3 EC #: 215-742-2
Concentration: 0.001-0.005%
Classification: Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3; H315, H319, H335

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.

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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:** Chemical resistant gloves required.
- Eye:** Safety glasses or goggles required.
- Clothing:** Laboratory coat required.
- General Hygiene Measures:** Wash hands thoroughly after handling.

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SECTION 9 – PHYSICAL / CHEMICAL PROPERTIES

Appearance: Frozen, yellow tinted liquid

Upper/lower flammability or Explosive limits: No data available

Odor: No data available

Vapor pressure: No data available

Odor threshold: No data available

Vapor density: No data available

pH: No data available

Relative density: No data available

Freezing point: No data available

Solubility: Soluble in water

Boiling point: No data available

Flash point: No data available

Evaporation rate: No data available

Flammability: Not flammable

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 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

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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 available

Persistence/Degradability: No data available

Bioaccumulation Potential: No data available

Mobility in Soil: No data available. Expected to be mobile in soil due to high solubility in water.

SECTION 13 – DISPOSAL CONSIDERATIONS

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 numbers that 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:

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

New Jersey Right to Know Components:

| | | |
|--------------------|-------------|-----------|
| Gentamicin Sulfate | CAS number: | 1405-41-0 |
| Amphotericin B | CAS number: | 1397-89-3 |

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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 12, 2017
Replaced Version date: NA

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