

IMCMY250225 INCOGNITO™ T7 mScript™ Complete N1meΨ-mRNA Production System SDS Checklist

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Art. Nr.: 150390

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: T7 mScript™ Enzyme Solution

Product Number: Component of kit.

**Other means
of identification:** None

1.2 Recommended Use and Restrictions on Use

Enzyme solution. Use within prescribed temperature parameters. Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|--|--------------------------------------|------------|-----------|---------------|
| Glycerol | $C_3H_5(OH)_3$ | 56-81-5 | 200-289-5 | Proprietary |
| Ethylenediaminetetraacetic acid (EDTA) disodium dihydrate | $C_{10}H_{14}N_2Na_2O_8 \cdot 2H_2O$ | 6381-92-6 | 205-358-3 | Proprietary |
| Other proprietary components are not considered hazardous. | | | | |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. If feeling unwell, get medical advice/attention.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | Carbon oxides, nitrogen oxides, sodium oxides, and sulfur oxide gas may be produced under fire conditions. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. Avoid concentration to solids by evaporation. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. Bulk materials and spill debris should be disposed of as hazardous waste. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

Precautions for safe handling:

Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas.

General hygiene advice:

Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday.

Measures to prevent fire:

Not available

Measures to prevent aerosol/dust generation:

Not available

Measures to protect the environment:

Not available

7.2 Conditions for safe storage, including any incompatibilities.

Technical measures and storage conditions:

Store at -20°C in a freezer without a defrost cycle. Do not store at -70°C.

Packaging materials:

Store in original container.

Requirements for storage rooms and vessels:

Not available

Incompatible materials:

Strong oxidizing agents, bases, alkali metals, and reducing agents.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

| Chemical Name | Limit Type | Country | Exposure Limit | Information Source |
|------------------------|------------|---------|---|--------------------|
| Glycerol (CAS 56-81-5) | TWA | USA | 5 mg/m ³ , mist, respirable fraction 15 mg/m ³ , mist, total particulate | Cal/OSHA PEL |

Limit Types: Occupational exposure limits (OELs), permissible exposure limits (PELs), threshold limit values (TLVs) or time-weighted average (TWA).

TWA is a measurement of a worker's average exposure to a hazardous substance or airborne pollutant over a set period of time (e.g., 8 hr, 1 week).

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | None |
| Odor threshold: | None |
| pH: | 7.5 |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | Avoid concentration of liquid mixture to solids. |
| Incompatible materials: | Strong oxidizing agents, bases, alkali metals, and reducing agents. |
| Hazardous decomposition products: | Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products formed under fire conditions. See section 5 in the event of a fire. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

| | |
|----------------------------|--|
| Likely routes of exposure: | Inhalation, ingestion, eye and skin contact. |
|----------------------------|--|

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|------|
| Additional information: | None |
|-------------------------|------|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

Ethylenediaminetetraacetic acid, disodium salt (CAS# 6381-92-6) and RNA polymerase are not listed in the TSCA. Remaining ingredients are listed in the TSCA inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients are listed except RNA polymerase.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients are listed.

SECTION 16: Other Information

16.1 Disclaimer

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: 10X T7 mScript™ Transcription Buffer II

Product Number: Component of kit.

Other means of identification: None

1.2 Recommended Use and Restrictions on Use

Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

Skin Irritation (category 2), H315

Eye Irritation (category 2A), H319

2.2 GHS Label elements, including precautionary statements



Pictogram

Signal Word

Warning

Hazard Statement(s)

H315 Causes skin irritation.

H319 Causes eye irritation.

Precautionary Statement(s)

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/ eye protection/ face protection.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water. Remove contacts, if present and easy to do, and continue rinsing.

P332 + P313 If skin irritation occurs: get medical advice/attention

P337 + P313 If eye irritation persists: get medical advice/attention.

P362 Remove contaminated clothing and wash before reuse.

2.3 Hazards not otherwise classified

None

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|---------------|---------|------------|-----------|---------------|
| Proprietary | N/A | N/A | N/A | N/A |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

| | |
|-------------|--|
| Eye: | Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention. |
| Skin: | Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention. |
| Inhalation: | Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention. |
| Ingestion: | Rinse mouth with water. Do not induce vomiting. Consult a physician. |

4.2 Most important symptoms and effects

H315 Causes skin irritation
H319 Causes eye irritation

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | Carbon oxides, sulphur oxides and nitrogen oxides may be produced under fire conditions. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

How to contain spill: Absorb onto inert material (sawdust or absorbent paper).

Cleaning-up methods: Shovel/sweep up debris and store in a sealed plastic container for disposal. Bulk materials and spill debris should be disposed of as hazardous waste.

Reference to other sections: See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal.

SECTION 7: Handling and Storage

7.1 Safe handling

Precautions for safe handling:

Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas.

General hygiene advice:

Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday.

Measures to prevent fire:

Not available

Measures to prevent aerosol/dust generation:

Not available

Measures to protect the environment:

Not available

7.2 Conditions for safe storage, including any incompatibilities.

Technical measures and storage conditions:

Store at -20°C in a freezer without a defrost cycle. Do not store at -70°C. Known to be hygroscopic.

Packaging materials:

Store in original container.

Requirements for storage rooms and vessels:

Store in well-ventilated area.

Incompatible materials:

Strong oxidizing agents, acid, acid chlorides, acid anhydrides.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | Avoid concentration of liquid mixture to solids. |
| Incompatible materials: | Strong oxidizing agents, acid, acid chlorides, acid anhydrides. |
| Hazardous decomposition products: | Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products formed under fire conditions. See section 5 in the event of a fire. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

Likely routes of exposure: Inhalation, ingestion, eye and skin contact.

11.2 Potential Health Effects

| | |
|------------------------------------|------------------------|
| Eye: | Causes eye irritation |
| Skin: | Causes skin irritation |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|------|
| Additional information: | None |
|-------------------------|------|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

All ingredients are listed in the TSCA inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients are listed.

**15.8 European Inventory of Existing Commercial Chemical Substances (EINECS),
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)**

All ingredients are listed.

SECTION 16: Other Information**16.1 Disclaimer**

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: 100 mM DTT
Product Number: Component of kit.
Other means of identification: DL-Dithiothreitol, Cleland's reagent, *threo*-1,4-Dimercapto-2,3-butanediol solution

1.2 Recommended Use and Restrictions on Use

Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

Acute Toxicity, Oral (category 4), H302
Skin irritation (category 2), H315
Eye irritation (category 2), H319
Specific Target Organ Toxicity, Single Exposure (category 3), H335

2.2 GHS Label elements, including precautionary statements



Pictogram

Signal Word

Warning

Hazard Statement(s)

H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

Precautionary Statement(s)

P261 Avoid breathing dust/fumes/mist/vapors/spray.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink, or smoke when using this product.
P280 Wear eye protection/face protection/protective gloves.
P301 + P312 + P330 If swallowed: call a POISON center/doctor if you feel unwell.
Rinse mouth with water.
P302 + P352 If on skin: wash with plenty of soap and water.
P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue to rinse.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P362 Take off contaminated clothing and wash before reuse.

2.3 Hazards not otherwise classified

Unknown

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|-------------------|--|------------|-----------|---------------|
| DL-dithiothreitol | C ₄ H ₁₀ O ₂ S ₂ | 3483-12-3 | 222-468-7 | 100 mM |
| Proprietary | N/A | N/A | N/A | N/A |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

| | |
|-------------|--|
| Eye: | Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention. |
| Skin: | Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention. |
| Inhalation: | Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention. |
| Ingestion: | Rinse mouth with water. Do not induce vomiting. If feeling unwell, get medical attention. |

4.2 Most important symptoms and effects

| | |
|---------|--|
| ACUTE | Harmful if swallowed, causes skin irritation, causes serious eye irritation, may cause respiratory irritation. |
| DELAYED | No data available |
| CHRONIC | No data available |

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | Hazardous fumes may be generated in case of a fire including carbon dioxide, carbon monoxide, sulfur oxides, sodium oxides, nitrogen oxides, and hydrogen sulfide. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation. Do not touch or walk through spilled material.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|---|
| Technical measures and storage conditions: | Store at -20°C in a freezer without a defrost cycle. |
| Packaging materials: | Store tightly sealed in original container. |
| Requirements for storage rooms and vessels: | Store in well-ventilated area. |
| Incompatible materials: | Strong oxidizing agents, bases, alkali metals, reducing agents. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be used. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Unpleasant |
| Odor threshold: | Not available |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid: | Exposure to moisture, product is hygroscopic. |
| Incompatible materials: | Strong oxidizing agents, bases, alkali metals, reducing agents. |
| Hazardous decomposition products: | Under fire conditions, dangerous fumes such as carbon oxides, nitrogen oxides, sodium oxides, sulfur oxides, and hydrogen sulfide may be produced. See section 5 for fire fighting measures. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

| | |
|----------------------------|--|
| Likely routes of exposure: | Inhalation, ingestion, eye and skin contact. |
|----------------------------|--|

11.2 Potential Health Effects

| | |
|------------------------------------|--|
| Eye: | Causes eye irritation. |
| Skin: | Causes skin irritation. May be toxic. |
| Inhalation: | Causes irritation to mucous membranes and upper respiratory tract. May be toxic. |
| Ingestion: | May be toxic. |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

Causes skin irritation.

Causes serious eye irritation.

May cause respiratory irritation.

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|------|
| Additional information: | None |
|-------------------------|------|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

Acute health hazard. See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

DTT is listed in the TSCA inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients are listed.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients are listed.

SECTION 16: Other Information

16.1 Disclaimer

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: 25 mM N1meΨTP PreMix

Product Number: Component of kit.

Other means of identification: None

1.2 Recommended Use and Restrictions on Use

Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|--|--|--------------|-----------|---------------|
| Adenosine 5'-triphosphate disodium salt | $C_{10}H_{14}N_5Na_2O_{13}P_3$ | 987-65-5 | 213-579-1 | 25 mM |
| Cytidine 5'-triphosphate disodium salt dihydrate | $C_9H_{14}N_3O_{14}P_3 \cdot Na_2 \cdot 2H_2O$ | 81012-87-5 | 815-308-8 | 25 mM |
| N1-methyl-pseudouridine 5'-triphosphate trisodium salt | $C_{10}H_{17}N_2Na_3O_{15}P_3$ | 1428903-59-6 | N/A | 25 mM |
| Guanosine 5'-triphosphate trisodium salt | $C_{10}H_{13}N_5Na_3O_{14}P_3$ | 36051-31-7 | 252-847-2 | 25 mM |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | No data available. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation. Do not touch or walk through spilled material.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|--|
| Technical measures and storage conditions: | Store at -20°C in a freezer without a defrost cycle. |
| Packaging materials: | Store in original container. |
| Requirements for storage rooms and vessels: | Not available |
| Incompatible materials: | Strong oxidizing agents. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions should not occur. |
| Conditions to avoid: | No data available. |
| Incompatible materials: | Strong oxidizing agents. |
| Hazardous decomposition products: | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

Likely routes of exposure: Inhalation, ingestion, eye and skin contact.

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|------|
| Additional information: | None |
|-------------------------|------|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

Ingredients are not listed in the TSCA inventory; for research use only.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Ingredients are not listed.

**15.8 European Inventory of Existing Commercial Chemical Substances (EINECS),
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)**

All ingredients except N1-methyl-pseudouridine-5'-triphosphate are listed in inventory.

SECTION 16: Other Information**16.1 Disclaimer**

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: RNase-Free DNase I, 1 U/μl

Product Number: Component of kit.

Other means of identification: Deoxyribonuclease I

1.2 Recommended Use and Restrictions on Use

Enzyme Solution. Avoid concentration of components by evaporation. This product is a laboratory reagent for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|---|--|------------|-----------|---------------|
| Deoxyribonuclease I | N/A | 9003-98-9 | 232-667-0 | 1 U/μl |
| Glycerol | C ₃ H ₅ (OH) ₃ | 56-81-5 | 200-289-5 | 50% |
| 2-Amino-2-(hydroxymethyl)-1,3-propanediol | NH ₂ C(CH ₂ OH) ₃ | 77-86-1 | 201-064-4 | 50 mM |
| Calcium Chloride | CaCl ₂ | 10043-52-4 | 233-140-8 | 10 mM |
| Magnesium Chloride | MgCl ₂ | 7786-30-3 | 232-094-6 | 10 mM |
| Triton X-100 | C ₁₆ H ₂₆ O ₂ | 9002-93-1 | 925-964-8 | 0.1% |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Gently flush with water, remove contact lenses, if present, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. If feeling unwell, get medical attention.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available |
| Special hazards arising from mixture: | No data available |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Do not touch or walk through spilled material. Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|--|
| Technical measures and storage conditions: | Store at -20°C in a freezer without a defrost cycle. |
| Packaging materials: | Store in original container. |
| Requirements for storage rooms and vessels: | Not available |
| Incompatible materials: | Strong oxidizing agents. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

| Chemical Name | Limit Type | Country | Exposure Limit | Information Source |
|------------------------|------------|---------|---|--------------------|
| Glycerol (CAS 56-81-5) | TWA | USA | 5 mg/m ³ , mist, respirable fraction 15 mg/m ³ , mist, total particulate | Cal/OSHA PEL |

Limit Types: Occupational exposure limits (OELs), permissible exposure limits (PELs), threshold limit values (TLVs) or time-weighted average (TWA).

TWA is a measurement of a worker's average exposure to a hazardous substance or airborne pollutant over a set period of time (e.g., 8 hr, 1 week).

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be used. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | General ventilation is sufficient to control worker exposure to airborne contaminants. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | 7.5 |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Not available |
| Upper flammability/explosive limit: | Not available |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Not available |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|---|
| Reactivity: | No data available. |
| Chemical stability: | Stable under recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid: | Avoid concentration of liquid mixture to solids. |
| Incompatible materials: | Strong oxidizing agents. |
| Hazardous decomposition products: | Under normal conditions of storage and use, no hazardous decomposition products are known to be produced. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

Likely routes of exposure: Inhalation, ingestion, eye and skin contact.

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|---|
| Additional information: | No known significant effects or critical hazards. |
|-------------------------|---|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|---|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

All ingredients are listed in the TSCA inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients are listed.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients are listed.

SECTION 16: Other Information

16.1 Disclaimer

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

Last Revision Date: 11 Nov 2024

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: ScriptCap™ Capping Enzyme, 10 U/μL

Product Number: Component of kit.

Other means of identification: None

1.2 Recommended Use and Restrictions on Use

Enzyme solution. Use within prescribed temperature parameters. Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|--|---|------------|-----------|---------------|
| ScriptCap™ Capping Enzyme | N/A | 56941-23-2 | N/A | 10 U/μl |
| Glycerol | C ₃ H ₅ (OH) ₃ | 56-81-5 | 200-289-5 | 50% |
| 2-Amino-2-(hydroxymethyl)-1,3-propanediol | C ₄ H ₁₁ NO ₃ | 77-86-1 | 201-064-4 | 50 mM |
| Sodium Chloride | NaCl | 7647-14-5 | 231-598-3 | 100 mM |
| Dithiothreitol (DTT) | C ₄ H ₁₀ O ₂ S ₂ | 3483-12-3 | 222-468-7 | 1 mM |
| Ethylenediaminetetraacetic acid (EDTA), disodium dihydrate | C ₁₀ H ₁₄ N ₂ Na ₂ O ₈ •2 H ₂ O | 6381-92-6 | 205-358-3 | 0.1 mM |
| Triton X-100 | C ₁₆ H ₂₆ O ₂ | 9002-93-1 | 618-344-0 | 0.1% |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | Carbon Oxides, Nitrogen Oxides, Sodium Oxides, and sulfur oxide gas may be produced under fire conditions. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Do not touch or walk through spilled material. Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

Precautions for safe handling:

Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas.

General hygiene advice:

Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday.

Measures to prevent fire:

Not available

Measures to prevent aerosol/dust generation:

Not available

Measures to protect the environment:

Not available

7.2 Conditions for safe storage, including any incompatibilities.

Technical measures and storage conditions:

Store at -20°C in a freezer without a defrost cycle. Do not store at -70°C.

Packaging materials:

Store in original container.

Requirements for storage rooms and vessels:

Not available

Incompatible materials:

Strong oxidizing agents, bases, alkali metals, reducing agents.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

| Chemical Name | Limit Type | Country | Exposure Limit | Information Source |
|------------------------|------------|---------|---|--------------------|
| Glycerol (CAS 56-81-5) | TWA | USA | 5 mg/m ³ , mist, respirable fraction 15 mg/m ³ , mist, total particulate | Cal/OSHA PEL |

Limit Types: Occupational exposure limits (OELs), permissible exposure limits (PELs), threshold limit values (TLVs) or time-weighted average (TWA).

TWA is a measurement of a worker's average exposure to a hazardous substance or airborne pollutant over a set period of time (e.g., 8 hr, 1 week).

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Odorless |
| Odor threshold: | None |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid: | Avoid concentration of liquid mixture to solids.. |
| Incompatible materials: | Strong oxidizing agents, bases, alkali metals, reducing agents. |
| Hazardous decomposition products: | Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products formed under fire conditions. See section 5 in the event of a fire. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

| | |
|----------------------------|--|
| Likely routes of exposure: | Inhalation, ingestion, eye and skin contact. |
|----------------------------|--|

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|---|
| Additional information: | No known significant effects or critical hazards. |
|-------------------------|---|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

All ingredients except EDTA disodium dihydrate and capping enzyme are listed in the TSCA inventory. This product is for research use only.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients except capping enzyme are listed.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients except capping enzyme are listed.

SECTION 16: Other Information**16.1 Disclaimer**

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: ScriptCap™ 2'-O-Methyltransferase, 100 U/μL

Product Number: Component of kit.

Other means of identification: None

1.2 Recommended Use and Restrictions on Use

Enzyme solution. Use within prescribed temperature parameters. Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|--|---|------------|-----------|---------------|
| 2'-O-Methyltransferase | N/A | 61970-02-3 | N/A | 100 U/μl |
| Glycerol | C ₃ H ₅ (OH) ₃ | 56-81-5 | 200-289-5 | 50% |
| 2-Amino-2-(hydroxymethyl)-1,3-propanediol | C ₄ H ₁₁ NO ₃ | 77-86-1 | 201-064-4 | 50 mM |
| Sodium Chloride | NaCl | 7647-14-5 | 231-598-3 | 100 mM |
| Dithiothreitol (DTT) | C ₄ H ₁₀ O ₂ S ₂ | 3483-12-3 | 222-468-7 | 1 mM |
| Ethylenediaminetetraacetic acid (EDTA), disodium dihydrate | C ₁₀ H ₁₄ N ₂ Na ₂ O ₈ •2 H ₂ O | 6381-92-6 | 205-358-3 | 0.1 mM |
| Triton X-100 | C ₁₆ H ₂₆ O ₂ | 9002-93-1 | 618-344-0 | 0.1% |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | Carbon Oxides, Nitrogen Oxides, Sodium Oxides, and Sulfur Oxide gas may be produced under fire conditions. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Do not touch or walk through spilled material. Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

Precautions for safe handling:

Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas.

General hygiene advice:

Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday.

Measures to prevent fire:

Not available

Measures to prevent aerosol/dust generation:

Not available

Measures to protect the environment:

Not available

7.2 Conditions for safe storage, including any incompatibilities.

Technical measures and storage conditions:

Store at -20°C in a freezer without a defrost cycle. Do not store at -70°C.

Packaging materials:

Store in original container.

Requirements for storage rooms and vessels:

Not available

Incompatible materials:

Strong oxidizing agents, bases, alkali metals, reducing agents.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

| Chemical Name | Limit Type | Country | Exposure Limit | Information Source |
|------------------------|------------|---------|---|--------------------|
| Glycerol (CAS 56-81-5) | TWA | USA | 5 mg/m ³ , mist, respirable fraction 15 mg/m ³ , mist, total particulate | Cal/OSHA PEL |

Limit Types: Occupational exposure limits (OELs), permissible exposure limits (PELs), threshold limit values (TLVs) or time-weighted average (TWA).

TWA is a measurement of a worker's average exposure to a hazardous substance or airborne pollutant over a set period of time (e.g., 8 hr, 1 week).

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | Avoid concentration of liquid mixture to solids. |
| Incompatible materials: | Strong oxidizing agents, bases, alkali metals, reducing agents. |
| Hazardous decomposition products: | Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products formed under fire conditions. See section 5 in the event of a fire. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

| | |
|----------------------------|--|
| Likely routes of exposure: | Inhalation, ingestion, eye and skin contact. |
|----------------------------|--|

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|---|
| Additional information: | No known significant effects or critical hazards. |
|-------------------------|---|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

Ethylenediaminetetraacetic acid, disodium salt (CAS# 6381-92-6) and 2'-O-Methyltransferase are not listed in the TSCA. Remaining ingredients are listed in the TSCA inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients except for 2'-O-Methyltransferase are listed; for research use only.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients except for 2'-O-Methyltransferase are listed.

SECTION 16: Other Information**16.1 Disclaimer**

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: 10X ScriptCap™ Capping Buffer

Product Number: Component of kit.

Other means of identification: None

1.2 Recommended Use and Restrictions on Use

Enzyme reaction buffer. Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|---|--|------------|-----------|---------------|
| 2-Amino-2-(hydroxymethyl)-1,3-propanediol | C ₄ H ₁₁ NO ₃ | 77-86-1 | 201-064-4 | 0.5 M |
| Potassium Chloride | KCl | 7447-40-7 | 231-211-8 | 60 mM |
| Magnesium Chloride | MgCl ₂ • 6H ₂ O | 7791-18-6 | 232-094-6 | 12.5 mM |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|---|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | Hydrogen chloride gas, magnesium oxide, potassium oxide may be produced under fire conditions. |
| Advice for firefighters: | Wear self-contained breathing apparatus and appropriate PPE while extinguishing the fire. Avoid concentration to solids by evaporation. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|--|
| Technical measures and storage conditions: | Store at -20°C in a freezer without a defrost cycle. |
| Packaging materials: | Store in original container. |
| Requirements for storage rooms and vessels: | Store in well-ventilated area. |
| Incompatible materials: | Strong oxidizing agents, metals. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | Avoid concentration of liquid mixture to solids. |
| Incompatible materials: | Strong oxidizing agents, metals |
| Hazardous decomposition products: | Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products formed under fire conditions. See section 5 in the event of a fire. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

Likely routes of exposure: Inhalation, ingestion, eye and skin contact.

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|------|
| Additional information: | None |
|-------------------------|------|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

All ingredients are listed in the TSCA inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients are listed.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients are listed.

SECTION 16: Other Information

16.1 Disclaimer

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: 20 mM S-adenosyl-methionine (SAM)

Product Number: Component of kit.

Other means of identification: None

1.2 Recommended Use and Restrictions on Use

Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|--|--|------------|-----------|---------------|
| S-(5'-Adenosyl)-L-methionine <i>p</i> -toluenesulfonate | C ₁₅ H ₂₂ N ₆ O ₅ S • C ₇ H ₈ O ₃ S | 52248-03-0 | N/A | 20 mM |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. Get medical attention. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

Suitable extinguishing media: Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: No data available.

Special hazards arising from mixture: Carbon oxides, Nitrogen oxides, Sulphur oxides.

Advice for firefighters: Wear self-contained breathing apparatus and full protective gear while extinguishing the fire.

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Do not touch or walk through spilled material. Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|---|
| Technical measures and storage conditions: | Store at -20°C in a freezer without a defrost cycle. Reagent is heat sensitive. |
| Packaging materials: | Store in original container. |
| Requirements for storage rooms and vessels: | Not available |
| Incompatible materials: | Strong oxidizing agents. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid: | Avoid heat, which may affect product quality. |
| Incompatible materials: | Strong oxidizing agents. |
| Hazardous decomposition products: | Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products formed under fire conditions. See section 5 in the event of a fire. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

Likely routes of exposure: Inhalation, ingestion, eye and skin contact.

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|---|
| Additional information: | No known significant effects or critical hazards. |
|-------------------------|---|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

Ingredients are not listed in the TSCA inventory; for research use only.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Ingredients are not listed; for research use only.

**15.8 European Inventory of Existing Commercial Chemical Substances (EINECS),
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)**

Ingredients are not listed.

SECTION 16: Other Information**16.1 Disclaimer**

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: 20 mM GTP
Product Number: Component of kit.
Other means of identification: Guanosine 5'-triphosphate

1.2 Recommended Use and Restrictions on Use

Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|--|--|------------|-----------|---------------|
| Guanosine 5'-triphosphate trisodium salt | $C_{10}H_{13}N_5O_{14}P_3 \cdot Na_3 \cdot H_2O$ | 36051-31-7 | 252-847-2 | 20 mM |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. If feeling unwell, get medical attention.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | No data available. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation. Do not touch or walk through spilled material.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|--|
| Technical measures and storage conditions: | Store at -20°C in a freezer without a defrost cycle. |
| Packaging materials: | Store in original container. |
| Requirements for storage rooms and vessels: | Not available |
| Incompatible materials: | Strong oxidizing agents. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Odorless |
| Odor threshold: | None |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid: | No data available. |
| Incompatible materials: | Strong oxidizing agents. |
| Hazardous decomposition products: | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

| | |
|----------------------------|--|
| Likely routes of exposure: | Inhalation, ingestion, eye and skin contact. |
|----------------------------|--|

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|---|
| Additional information: | No known significant effects or critical hazards. |
|-------------------------|---|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. Product may be dissolved in a combustible solvent or absorbed onto a combustible material and burned by chemical incinerator. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

Ingredients are not listed in the TSCA inventory; for research use only.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Ingredients are not listed.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients are listed.

SECTION 16: Other Information

16.1 Disclaimer

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: A-Plus™ Poly(A) Polymerase 4 U/μl

Product Number: Component of kit.

**Other means
of identification:** None

1.2 Recommended Use and Restrictions on Use

Enzyme solution. Use within prescribed temperature parameters. Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|--|---|------------|-----------|---------------|
| A-Plus™ Poly(A) Polymerase | N/A | N/A | N/A | 4 U/μl |
| Glycerol | C ₃ H ₅ (OH) ₃ | 56-81-5 | 200-289-5 | 50% |
| 2-Amino-2-(hydroxymethyl)- 1,3-propanediol | C ₄ H ₁₁ NO ₃ | 77-86-1 | 201-064-4 | 50 mM |
| Sodium chloride | NaCl | 7647-14-5 | 231-598-3 | 0.5 M |
| Dithiothreitol (DTT) | C ₄ H ₁₀ O ₂ S ₂ | 3483-12-3 | 222-468-7 | 1 mM |
| Ethylenediaminetetraacetic acid (EDTA) Disodium Salt Dihydrate | C ₁₀ H ₁₄ N ₂ Na ₂ O ₈ •2 H ₂ O | 6381-92-6 | 205-358-3 | 0.1 mM |
| Triton X-100 | C ₁₆ H ₂₆ O ₂ | 9002-93-1 | 925-964-8 | 0.1% |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention. .

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | Carbon Oxides, Nitrogen Oxides, Sodium Oxides, and Sulfur Oxide gas may be produced under fire conditions. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Do not touch or walk through spilled material. Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|---|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. Bulk materials and spill debris (>10 ml) should be disposed of as hazardous waste. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

Precautions for safe handling:

Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas.

General hygiene advice:

Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday.

Measures to prevent fire:

Not available

Measures to prevent aerosol/dust generation:

Not available

Measures to protect the environment:

Not available

7.2 Conditions for safe storage, including any incompatibilities.

Technical measures and storage conditions:

Store at -20°C in a freezer without a defrost cycle. Avoid concentration to solids by evaporation.

Packaging materials:

Store in original container.

Requirements for storage rooms and vessels:

Not available

Incompatible materials:

Strong oxidizing agents, strong bases.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

| Chemical Name | Limit Type | Country | Exposure Limit | Information Source |
|------------------------|------------|---------|---|--------------------|
| Glycerol (CAS 56-81-5) | TWA | USA | 5 mg/m ³ , mist, respirable fraction 15 mg/m ³ , mist, total particulate | Cal/OSHA PEL |

Limit Types: Occupational exposure limits (OELs), permissible exposure limits (PELs), threshold limit values (TLVs) or time-weighted average (TWA).

TWA is a measurement of a worker's average exposure to a hazardous substance or airborne pollutant over a set period of time (e.g., 8 hr, 1 week).

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | 7.5 |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | Avoid concentration of liquid mixture to solids. |
| Incompatible materials: | Strong oxidizing agents, strong bases. |
| Hazardous decomposition products: | Under normal conditions of storage and use, hazardous decomposition products should not be produced. Hazardous decomposition products formed under fire conditions. See section 5 in the event of a fire. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

| | |
|----------------------------|--|
| Likely routes of exposure: | Inhalation, ingestion, eye and skin contact. |
|----------------------------|--|

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|---|
| Additional information: | No known significant effects or critical hazards. |
|-------------------------|---|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

Ethylenediaminetetraacetic acid, disodium salt (CAS# 6381-92-6) and A-Plus Poly(A) Polymerase are not listed in the TSCA. Remaining ingredients are listed in the TSCA inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients except A-Plus Poly(A) Polymerase are listed.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients except A-Plus Poly(A) Polymerase are listed.

SECTION 16: Other Information

16.1 Disclaimer

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: 10X A-Plus™ Poly(A) Tailing Buffer

Product Number: Component of kit.

**Other means
of identification:** None

1.2 Recommended Use and Restrictions on Use

Enzyme reaction buffer. Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|---|--|------------|-----------|---------------|
| 2-Amino-2-(hydroxymethyl)-1,3-propanediol | C ₄ H ₁₁ NO ₃ | 77-86-1 | 201-064-4 | 0.5 M |
| Sodium Chloride | NaCl | 7647-14-5 | 231-598-3 | 2.5 M |
| Magnesium Chloride | MgCl ₂ •6H ₂ O | 7791-18-6 | 232-094-6 | 100 mM |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | No data available. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. Avoid concentration to solids by evaporation. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|--|
| Technical measures and storage conditions: | Store at -20°C in a freezer without a defrost cycle. |
| Packaging materials: | Store in original container. |
| Requirements for storage rooms and vessels: | Not available |
| Incompatible materials: | Strong oxidizing agents, bases. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Avoid concentration of liquid, stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | Avoid concentration of liquid mixture to solids. |
| Incompatible materials: | Strong oxidizing agents, bases. |
| Hazardous decomposition products: | No data available. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

Likely routes of exposure: Inhalation, ingestion, eye and skin contact.

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|------|
| Additional information: | None |
|-------------------------|------|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

All ingredients are listed in the TSCA inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients are listed.

**15.8 European Inventory of Existing Commercial Chemical Substances (EINECS),
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)**

All ingredients are listed.

SECTION 16: Other Information**16.1 Disclaimer**

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: 20 mM ATP
Product Number: Component of kit.
Other means of identification: Adenosine 5'-triphosphate

1.2 Recommended Use and Restrictions on Use

Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|---|--|------------|-----------|---------------|
| Adenosine 5'-triphosphate disodium salt | $C_{10}H_{14}N_5O_{13}P_3 \cdot Na_2 \cdot H_2O$ | 34369-07-8 | 213-579-1 | 20 mM |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

Suitable extinguishing media: Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: No data available.

Special hazards arising from mixture: No data available.

Advice for firefighters: Wear self-contained breathing apparatus and full protective gear while extinguishing the fire.

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Do not touch or walk through spilled material. Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|--|
| Technical measures and storage conditions: | Store at -20°C in a freezer without a defrost cycle. |
| Packaging materials: | Store in original container. |
| Requirements for storage rooms and vessels: | Not available |
| Incompatible materials: | Strong oxidizing agents. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Odorless |
| Odor threshold: | None |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid: | No data available. |
| Incompatible materials: | Strong oxidizing agents. |
| Hazardous decomposition products: | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

Likely routes of exposure: Inhalation, ingestion, eye and skin contact.

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|---|
| Additional information: | No known significant effects or critical hazards. |
|-------------------------|---|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|---|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. Product may be dissolved in a combustible solvent or absorbed onto a combustible material and burned by chemical incinerator |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

Ingredients are not listed in the TSCA inventory; for research use only.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Ingredients are not listed.

**15.8 European Inventory of Existing Commercial Chemical Substances (EINECS),
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)**

All ingredients are listed.

SECTION 16: Other Information**16.1 Disclaimer**

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: Min-Immune™ Gold RNase III

Product Number: Component of kit.

Other means of identification: Ribonuclease III

1.2 Recommended Use and Restrictions on Use

Enzyme solution. Use within prescribed temperature parameters. Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|--|--|------------|-----------|---------------|
| Ribonuclease III | N/A | N/A | N/A | Proprietary |
| Glycerol | C ₃ H ₈ O ₃ | 56-81-5 | 200-289-5 | 50% |
| Sodium chloride | NaCl | 7647-14-5 | 231-598-3 | 500 mM |
| 2-Amino-2-(hydroxymethyl)-1,3-propanediol | C ₄ H ₁₁ NO ₃ | 77-86-1 | 201-064-4 | 50 mM |
| Dithiothreitol (DTT) | C ₄ H ₁₀ O ₂ S ₂ | 3483-12-3 | 222-468-7 | 1 mM |
| Ethylenediaminetetraacetic acid (EDTA) Disodium Salt Dihydrate | C ₁₀ H ₁₄ N ₂ Na ₂ O ₈ •2H ₂ O | 6381-92-6 | 205-358-3 | 0.1 mM |
| Triton X-100 | C ₁₄ H ₂₂ O(C ₂ H ₄ O) _n (n=9-10) | 9002-93-1 | 618-344-0 | 0.1% |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. If feeling unwell, get medical advice/attention.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | Carbon oxides, nitrogen oxides, sodium oxides, and sulfur oxide gas may be produced under fire conditions. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

Precautions for safe handling:

Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas.

General hygiene advice:

Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday.

Measures to prevent fire:

Not available

Measures to prevent aerosol/dust generation:

Not available

Measures to protect the environment:

Not available

7.2 Conditions for safe storage, including any incompatibilities.

Technical measures and storage conditions:

Store at -20°C in a freezer without a defrost cycle. Do not store at -70°C.

Packaging materials:

Store in original container.

Requirements for storage rooms and vessels:

Not available

Incompatible materials:

Strong oxidizing agents, bases, alkali metals, and reducing agents.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

| Chemical Name | Limit Type | Country | Exposure Limit | Information Source |
|------------------------|------------|---------|---|--------------------|
| Glycerol (CAS 56-81-5) | TWA | USA | 5 mg/m ³ , mist, respirable fraction | Cal/OSHA PEL |
| | | | 15 mg/m ³ , mist, total particulate | |

Limit Types: Occupational exposure limits (OELs), permissible exposure limits (PELs), threshold limit values (TLVs) or time-weighted average (TWA).

TWA is a measurement of a worker's average exposure to a hazardous substance or airborne pollutant over a set period of time (e.g., 8 hr, 1 week).

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|---|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions should not occur. |
| Conditions to avoid: | Avoid concentration of liquid mixture to solids. |
| Incompatible materials: | Strong oxidizing agents, bases, alkali metals, and reducing agents. |
| Hazardous decomposition products: | Under normal conditions of storage and use, no hazardous decomposition products are known to be produced. See section 5 for hazardous gases produced under fire conditions. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

| | |
|----------------------------|--|
| Likely routes of exposure: | Inhalation, ingestion, eye and skin contact. |
|----------------------------|--|

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|------|
| Additional information: | None |
|-------------------------|------|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

Ethylenediaminetetraacetic acid, disodium salt (CAS# 6381-92-6) and RNase III are not listed in the TSCA. Remaining ingredients are listed in the TSCA inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients are listed except RNase III.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients are listed except RNase III.

SECTION 16: Other Information

16.1 Disclaimer

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: Min-Immune™ Gold 10X RNase III Treatment Buffer

Product Number: Component of kit.

**Other means
of identification:** None

1.2 Recommended Use and Restrictions on Use

Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|---------------|---------|------------|-----------|---------------|
| Proprietary | N/A | N/A | N/A | N/A |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. If feeling unwell, get medical advice/attention.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | Carbon oxides, nitrogen oxides, sodium oxides, and sulfur oxide gas may be produced under fire conditions. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. Bulk materials and spill debris should be disposed of as hazardous waste. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|---|
| Technical measures and storage conditions: | Store at -20°C in a freezer without a defrost cycle. Do not store at -70°C. |
| Packaging materials: | Store in original container. |
| Requirements for storage rooms and vessels: | Not available |
| Incompatible materials: | Strong oxidizing agents, bases, alkali metals, and reducing agents. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|---|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions should not occur. |
| Conditions to avoid: | Avoid concentration of liquid mixture to solids. |
| Incompatible materials: | Strong oxidizing agents, bases, alkali metals, and reducing agents. |
| Hazardous decomposition products: | Under normal conditions of storage and use, no hazardous decomposition products are known to be produced. See section 5 for hazardous gases produced under fire conditions. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

| | |
|----------------------------|--|
| Likely routes of exposure: | Inhalation, ingestion, eye and skin contact. |
|----------------------------|--|

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|------|
| Additional information: | None |
|-------------------------|------|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

All ingredients are listed in the TSCA Inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients are listed.

**15.8 European Inventory of Existing Commercial Chemical Substances (EINECS),
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)**

All ingredients are listed.

SECTION 16: Other Information**16.1 Disclaimer**

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: ScriptGuard™ RNase Inhibitor
Product Number: C-SRI6310K. Also a component of kit.
Other means of identification: None

1.2 Recommended Use and Restrictions on Use

Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|--|--|------------|-----------|---------------|
| ScriptGuard™ RNase Inhibitor | N/A | N/A | N/A | N/A |
| Glycerol | C ₃ H ₈ O ₃ | 56-81-5 | 200-289-5 | 50% |
| 2-Amino-2-(hydromethyl)-1,3-propanediol | C ₄ H ₁₁ NO ₃ | 77-86-1 | 201-064-4 | 50 mM |
| Sodium chloride | NaCl | 7647-14-5 | 231-598-3 | 100 mM |
| Dithiothreitol (DTT) | C ₄ H ₁₀ O ₂ S ₂ | 3483-12-3 | 222-468-7 | 10 mM |
| Ethylenediaminetetraacetic acid (EDTA) Disodium Salt Dihydrate | C ₁₀ H ₁₄ N ₂ O ₈ •2H ₂ O | 6381-92-6 | 205-358-3 | 0.1 mM |
| Triton X-100 | C ₁₄ H ₂₂ O(C ₂ H ₄ O) _n (n=9-10) | 9002-93-1 | 618-344-0 | 0.1% |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. If feeling unwell, get medical attention.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | Carbon oxides, nitrogen oxides, sodium oxides, and sulfur oxide gas may be produced under fire conditions. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. Avoid concentration to solids by evaporation. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation. Avoid contact with skin and eyes.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. Bulk materials and spill debris should be disposed of as hazardous waste. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

Precautions for safe handling:

Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas.

General hygiene advice:

Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday.

Measures to prevent fire:

Not available

Measures to prevent aerosol/dust generation:

Not available

Measures to protect the environment:

Not available

7.2 Conditions for safe storage, including any incompatibilities.

Technical measures and storage conditions:

Store at -20°C in a freezer without a defrost cycle. Do not store at -70°C.

Packaging materials:

Store in original container.

Requirements for storage rooms and vessels:

Not available

Incompatible materials:

Strong oxidizing agents, bases, alkali metals, and reducing agents.

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

| Chemical Name | Limit Type | Country | Exposure Limit | Information Source |
|------------------------|------------|---------|---|--------------------|
| Glycerol (CAS 56-81-5) | TWA | USA | 5 mg/m ³ , mist, respirable fraction 15 mg/m ³ , mist, total particulate | CAL/OSHA PEL |

Limit Types: Occupational exposure limits (OELs), permissible exposure limits (PELs), threshold limit values (TLVs) or time-weighted average (TWA).

TWA is a measurement of a worker's average exposure to a hazardous substance or airborne pollutant over a set period of time (e.g., 8 hr, 1 week).

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | 7.5 |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|---|
| Reactivity: | No dangerous reactions known under normal storage and usage conditions. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid: | Avoid concentration of liquid mixture to solids. |
| Incompatible materials: | Strong oxidizing agents, bases, alkali metals, and reducing agents |
| Hazardous decomposition products: | Under normal conditions of storage and use, no hazardous decomposition products are known to be produced. See section 5 for hazardous gases produced under fire conditions. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

| | |
|----------------------------|--|
| Likely routes of exposure: | Inhalation, ingestion, eye and skin contact. |
|----------------------------|--|

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:
No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|------|
| Additional information: | None |
|-------------------------|------|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|--|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

All ingredients except EDTA disodium dihydrate are listed in the TSCA Inventory. This product is for research use only.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients are listed.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients are listed.

SECTION 16: Other Information**16.1 Disclaimer**

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: RNase-Free Water
Product Number: Component of kit
Other means of identification: None

1.2 Recommended Use and Restrictions on Use

This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|---------------|------------------|------------|-----------|---------------|
| Water | H ₂ O | 7732-18-5 | 231-791-2 | N/A |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Gently wash the contaminated area with plenty of soap and water for at least 15 minutes.

Inhalation: Not expected to be an inhalation hazard under anticipated normal use conditions. If feeling unwell, consult a physician.

Ingestion: Rinse mouth with water. Do not induce vomiting. If feeling unwell, consult a physician.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

Suitable extinguishing media: Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.

Unsuitable extinguishing media: No data available.

Special hazards arising from mixture: No data available.

Advice for firefighters: Wear self-contained breathing apparatus and full protective gear while extinguishing the fire.

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation.

Environmental precautions:

No special environmental precautions known.

Methods and material for containment and cleaning up.

How to contain spill: Absorb onto inert material (sawdust or absorbent paper).

Cleaning-up methods: Shovel/sweep up debris and store in a sealed plastic container for disposal.

Reference to other sections: See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal.

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|--|
| Technical measures and storage conditions: | Store at -20°C in a freezer without a defrost cycle. |
| Packaging materials: | Store in original container. |
| Requirements for storage rooms and vessels: | Not available |
| Incompatible materials: | Not available |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be used. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

No special environmental precautions known

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Odorless |
| Odor threshold: | Not available |
| pH: | Not available |
| Melting point/freezing point: | 0°C |
| Initial boiling point and boiling range: | 100°C |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | 1.0 |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No dangerous reactions known under recommended storage and usage conditions. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid: | No data available. |
| Incompatible materials: | No data available. |
| Hazardous decomposition products: | No data available. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

| | |
|----------------------------|--|
| Likely routes of exposure: | Inhalation, ingestion, eye and skin contact. |
|----------------------------|--|

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|------|
| Additional information: | None |
|-------------------------|------|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|---|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Not available |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

All ingredients are listed in the TSCA inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients are listed.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients are listed.

SECTION 16: Other Information

16.1 Disclaimer

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: 5 M Ammonium Acetate

Product Number: Component of kit.

**Other means
of identification:** None

1.2 Recommended Use and Restrictions on Use

Avoid concentration of components by evaporation. This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|------------------|---|------------|-----------|---------------|
| Ammonium Acetate | C ₂ H ₇ NO ₂ | 631-61-8 | 211-162-9 | 5 M |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | Carbon oxides, Nitrogen oxides (NO _x) |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Do not touch or walk through spilled material. Ensure adequate ventilation. Avoid dust formation. Avoid breathing vapors, mist, or gas.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|--|
| Technical measures and storage conditions: | Store in a cool, dry location in a tightly sealed container. |
| Packaging materials: | Store in original container. |
| Requirements for storage rooms and vessels: | Not available |
| Incompatible materials: | Strong oxidizing agents, strong acids, sodium hypochlorite. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Odorless |
| Odor threshold: | None |
| pH: | Not available |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|--|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | Under recommended conditions of storage and use, hazardous reactions will not occur. |
| Conditions to avoid: | No data available. |
| Incompatible materials: | Strong oxidizing agents, strong acids, sodium hypochlorite. |
| Hazardous decomposition products: | Carbon oxides and Nitrogen oxides (NO _x) |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

Likely routes of exposure: Inhalation, ingestion, eye and skin contact.

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|---|
| Additional information: | No known significant effects or critical hazards. |
|-------------------------|---|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

Product/package disposal:

Dispose of material in accordance with all federal, state, and local regulations. Use a licensed professional waste disposal service to dispose of this product. Product may be dissolved in a combustible solvent or absorbed onto a combustible material and burned by chemical incinerator.

Waste codes/waste designations according to LoW:
Waste treatment-relevant information:

Unknown

Dispose of material in accordance with all federal, state, and local regulations.

Sewage disposal-relevant information:

Prevent material from entering drains, sewer, and waterways.

Other disposal recommendations:

None

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

UN number:

Not available

UN proper shipping name:

Not available

Transport hazard class(es):

Not available

Packing group:

Not available

Environmental hazards:

Not available

Special precautions for user:

Do not transport until safety precautions have been read and understood.

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

Chemical is listed.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Chemical is listed.

**15.8 European Inventory of Existing Commercial Chemical Substances (EINECS),
European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)**

All ingredients are listed.

SECTION 16: Other Information**16.1 Disclaimer**

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See the document footer for the last revision date.

Safety Data Sheet

Classification in accordance with Global Harmonizing System (GHS)

Note: This product is deemed non-hazardous.

SECTION 1: Identification of The Substance/Mixture and of the Company Undertaking

1.1 Product Identifier

Product Name: T7 Control DNA Template

Product Number: Component of kit.

Other means of identification: None

1.2 Recommended Use and Restrictions on Use

This product is for research and development use only.

1.3 Details of the Supplier of the Safety Data Sheet

| | |
|----------------------------|---|
| Company | CELLSCRIPT™ |
| Address | 726 Post Rd. |
| City, State, Zip Code | Madison, WI 53713 |
| Country | USA |
| Telephone Number | 888-826-5586 |
| Email Address | customerservice@cellscript.com |
| Emergency Telephone Number | 1-608-442-6484 Monday to Friday 8am-4pm CST |

SECTION 2: Hazard(s) Identification

2.1 Classification of the Substance or Mixture

This product, as supplied, is not considered hazardous.

2.2 GHS Label elements, including precautionary statements

This product, as supplied, is not considered hazardous.

2.3 Hazards not otherwise classified

This product, as supplied, is not considered hazardous.

SECTION 3: Composition / Information on Ingredients

3.1 Components of Substance or Mixture

| Chemical name | Formula | CAS number | EC number | Concentration |
|--|---|------------|-----------|---------------|
| Tris(hydroxymethyl)aminomethane | $(\text{HOCH}_2)_3\text{CNH}_2$ | 77-86-1 | 201-064-4 | 10 mM |
| Ethylenediaminetetraacetic acid (EDTA) disodium salt dihydrate | $\text{C}_{10}\text{H}_{14}\text{N}_2\text{Na}_2\text{O}_8 \cdot 2\text{H}_2\text{O}$ | 6381-92-6 | 613-386-6 | 1 mM |

Impurities: Not known.

SECTION 4: First Aid Measures

4.1 Description of first aid measures

Eye: Remove contact lenses, hold eye lids open and flush eye with plenty of water (or buffered saline eye wash) for at least 15 minutes. If eye irritation occurs, get medical advice/attention.

Skin: Remove contaminated clothing and wash before reuse. Gently wash the contaminated area with plenty of soap and water for at least 15 minutes. If skin irritation or rash develops, get medical advice/attention.

Inhalation: Move person to fresh air. If not breathing clear airway and start cardiopulmonary resuscitation (CPR), avoid mouth-to-mouth; give artificial respiration and get medical attention. If respiratory irritation, dizziness, nausea occurs, get medical advice/attention.

Ingestion: Rinse mouth with water. Do not induce vomiting. Consult a physician.

4.2 Most important symptoms and effects

ACUTE No data available
DELAYED No data available
CHRONIC No data available

4.3 Indication of any immediate medical attention and special treatment needed

No data available

SECTION 5: Fire Fighting Measures

| | |
|---------------------------------------|--|
| Suitable extinguishing media: | Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media: | No data available. |
| Special hazards arising from mixture: | No data available. |
| Advice for firefighters: | Wear self-contained breathing apparatus and full protective gear while extinguishing the fire. |

SECTION 6: Accidental Release Measures

6.1 Personal precautions and protective equipment (PPE) and emergency procedures.

Personal precautions and protective equipment (PPE):

Depending on the extent of release, consider the need for trained firefighters/ emergency responders with adequate PPE for cleaning up. Keep unnecessary people away. Wear proper PPE (see section 8). Ensure adequate ventilation.

Environmental precautions:

Prevent spills from entering storm sewers, drains or waterways. Prevent release to the environment.

Methods and material for containment and cleaning up.

| | |
|------------------------------|--|
| How to contain spill: | Absorb onto inert material (sawdust or absorbent paper). |
| Cleaning-up methods: | Shovel/sweep up debris and store in a sealed plastic container for disposal. |
| Reference to other sections: | See section 8 for further information on protective clothing and equipment, see section 13 for advice on waste disposal. |

SECTION 7: Handling and Storage

7.1 Safe handling

| | |
|--|--|
| Precautions for safe handling: | Use appropriate personal protective equipment. Do not get in eyes or on skin, breathe vapors or mists. Ensure good ventilation. Remove contaminated clothing and protective equipment when leaving work areas. |
| General hygiene advice: | Use good industrial hygiene and safety practices. Wash hands before breaks, in use, and at the end of the workday. |
| Measures to prevent fire: | Not available |
| Measures to prevent aerosol/dust generation: | Not available |
| Measures to protect the environment: | Not available |

7.2 Conditions for safe storage, including any incompatibilities.

| | |
|---|--|
| Technical measures and storage conditions: | Store at -20°C in a freezer without a defrost cycle. |
| Packaging materials: | Store in original container. |
| Requirements for storage rooms and vessels: | Not available |
| Incompatible materials: | Strong oxidizing agents. |

SECTION 8: Exposure controls/personal protection

8.1 Control Parameters

This product, as supplied, does not contain any hazardous substances with occupational exposure limits established by OSHA.

8.2 Engineering controls

Safety shower, eye wash station and ventilation systems.

8.3 Personal protection equipment & measures

| | |
|-------------------------|--|
| Eye/face protection: | Safety glasses with side shields or goggles approved by government standards such as NIOSH (US), CEN (EU) and WHMIS (CA) should be worn. |
| Skin/body protection: | Wear lab coat. |
| Hand protection: | Latex, nitrile or rubber gloves should be used when handling substance. |
| Respiratory protection: | Use in a well-ventilated area. In case of insufficient ventilation, respirators should be used that have been tested and approved by appropriate government standards such as NIOSH. |
| Hygiene measures: | Handle in accordance with good industrial hygiene and safety practice. |

8.4 General health & safety measures

Use clean laboratory practices and personal protection equipment

8.5 Environmental exposure controls

Do not let product enter drains.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

| | |
|--|---------------|
| Physical state: | Liquid |
| Appearance/color | Clear |
| Odor: | Not available |
| Odor threshold: | Not available |
| pH: | 7.5 |
| Melting point/freezing point: | Not available |
| Initial boiling point and boiling range: | Not available |
| Flash Point: | Not available |
| Evaporation rate: | Not available |
| Flammability: | Not available |
| Lower flammability/explosive limit: | Unknown |
| Upper flammability/explosive limit: | Unknown |
| Vapor pressure: | Not available |
| Vapor density: | Not available |
| Relative density: | Not available |
| Solubility: | Water soluble |
| Partition coefficient: n-octanol/water: | Unknown |
| Auto-ignition temperature: | Unknown |
| Decomposition temperature: | Unknown |
| Viscosity: | Unknown |
| Explosive properties: | Unknown |
| Oxidizing properties: | Unknown |
| Other information: | Not available |

SECTION 10: Stability and Reactivity

| | |
|-------------------------------------|---|
| Reactivity: | No data available. |
| Chemical stability: | Stable under normal recommended storage and usage conditions. |
| Possibility of hazardous reactions: | No data available. |
| Conditions to avoid: | No data available. |
| Incompatible materials: | Strong oxidizing agents. |
| Hazardous decomposition products: | No data available. |

SECTION 11: Toxicological Information

11.1 Routes of Exposure

Likely routes of exposure: Inhalation, ingestion, eye and skin contact.

11.2 Potential Health Effects

| | |
|------------------------------------|---------------|
| Eye: | Not available |
| Skin: | Not available |
| Inhalation: | Not available |
| Ingestion: | Not available |
| Toxicity: | Not available |
| Skin corrosion/irritation: | Not available |
| Serious eye damage/irritation: | Not available |
| Respiratory or skin sensitization: | Not available |
| STOT-single exposure: | Not available |
| Chronic health effects: | Not available |
| Carcinogenicity: | Not available |
| Germ cell mutagenicity: | Not available |
| Reproductive toxicity: | Not available |
| Developmental: | Not available |
| Fertility: | Not available |
| STOT-repeated exposure: | Not available |
| Aspiration hazard: | Not available |
| Other information: | None |

11.3 Numerical measures of toxicity

No data available

11.4 Symptoms

Symptoms related to the physical, chemical, and toxicological characteristics:

No data available

IARC No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the IARC.

OSHA No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the OSHA.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed carcinogen by the NTP.

SECTION 12: Ecological Information

12.1 Ecotoxicity

| | |
|-----------------------|---------------|
| Acute toxicity: | Not available |
| Chronic toxicity: | Not available |
| Eco/aquatic toxicity: | Not available |

12.2 Persistence and Degradability

| | |
|---|---------------|
| Abiotic degradation: | Not available |
| Physical- and photo-chemical elimination: | Not available |
| Biodegradation: | Not available |
| Bioaccumulative potential: | Not available |

12.3 Biological oxygen demand

| | |
|---------------------------------------|---------------|
| Theoretical oxygen demand at 10 ppm: | Not available |
| Chemical oxygen demand at 10 ppm: | Not available |
| Biological oxygen demand-5 at 10 ppm: | Not available |

12.4 Known or predicted distribution to environmental compartments

| | |
|------------------------|---------------|
| Surface tension: | Not available |
| Absorption/desorption: | Not available |
| Mobility in soil: | Not available |

12.5 Results of PBT and vPvB assessment

| | |
|--------------|---------------|
| PBT results: | Not available |
| PvB results: | Not available |

12.6 Other adverse effects

| | |
|-------------------------|------|
| Additional information: | None |
|-------------------------|------|

SECTION 13: Disposal Considerations

13.1 Waste treatment methods

| | |
|--|---|
| Product/package disposal: | Dispose of material in accordance with all federal, state, and local regulations. |
| Waste codes/waste designations according to LoW: | Unknown |
| Waste treatment-relevant information: | Dispose of material in accordance with all federal, state, and local regulations. |
| Sewage disposal-relevant information: | Prevent material from entering drains, sewer, and waterways. |
| Other disposal recommendations: | None |

SECTION 14: Transport Information

This product, as supplied, is not regulated by US Department of Transportation (DOT), ADR/RID (cross border) IMDG and IATA/ICAO.

| | |
|-------------------------------|--|
| UN number: | Not available |
| UN proper shipping name: | Not available |
| Transport hazard class(es): | Not available |
| Packing group: | Not available |
| Environmental hazards: | Not available |
| Special precautions for user: | Do not transport until safety precautions have been read and understood. |

SECTION 15: Regulatory Information

15.1 Occupational Safety and Health Administration (OSHA) Hazards

Not listed

15.2 SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 302.

15.3 SARA 313 Components

No chemicals in this material are subject to the reporting requirements of SARA Section 313.

15.4 SARA 311/312 Hazards

See section 2 for more information.

15.5 California Proposition 65

This product does not contain any chemicals known to the State of California to cause birth defects or other reproductive harm.

15.6 United States of America Toxic Substances Control Act (TSCA) List

Ethylenediaminetetraacetic acid, disodium salt (CAS# 6381-92-6) is not listed in the TSCA. Remaining ingredients are listed in the TSCA inventory.

15.7 Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

All ingredients are listed.

15.8 European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

All ingredients are listed.

SECTION 16: Other Information

16.1 Disclaimer

The information provided on the SDS is the most accurate information to the best knowledge of CELLSCRIPT™ at this time. The information provided within serves the purpose of guidance for safe handling, use, processing storage, transportation, disposal, and release. This document should not be considered as a warranty or quality specification. The information relates only to the specific material designated and is not valid when used in combination with other materials or within a process. CELLSCRIPT™ assumes no liability for damage resulting from handling or contact with this product.

16.2 Document Revision

See document footer for last revision date.