

## 1. IDENTIFICATION

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### 1.1 Product Identifiers

Product Name(s): Adenosine-5'-Triphosphate  
ATP  
Product Number: N-1510  
CAS Number: Not applicable.

### 1.2 Uses

Recommended use: Laboratory chemicals, manufacture of substances.  
Uses advised against: No Information Available

### 1.3 Details of the Supplier of the Safety Data Sheet

Supplier address: TriLink BioTechnologies, Inc.  
9955 Mesa Rim Road  
San Diego, CA 92121  
USA  
Company phone: 858-546-0004  
800-863-6801 (toll free)  
Fax: 858-546-0020  
Email address: info@trilinkbiotech.com

### 1.4 Emergency Telephone Number

Emergency Phone: 858-546-0004  
800-863-6801 (toll free)  
7 am – 5 pm PST, Monday-Friday

## 2. HAZARD IDENTIFICATION

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### 2.1 Classification

Not a dangerous substance or mixture

### 2.2 Label Elements

Not a hazardous substance or mixture.

### 2.3 Hazards not Otherwise Classified (HNOC) or not covered by GHS

None

## 3. COMPOSITION

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### 3.1 Substances

No ingredients are hazardous according to OSHA criteria. No components need to be disclosed according to the applicable regulations.

## 4. FIRST AID MEASURES

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### 4.1 First Aid Measures

Eye contact: Immediately flush eyes with copious amounts of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.  
Skin contact: Immediately wash skin with soap and water.  
Inhalation: Remove to fresh air.  
Ingestion: If swallowed, wash out mouth with water provided person is conscious. Consult a physician.

#### **4.2 Most Important Symptoms and Effects, both Acute and Delayed**

No information available.

#### **4.3 Indication of any Immediate Medical Attention and Special Treatment Needed**

No information available.

### **5. FIRE-FIGHTING MEASURE**

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#### **5.1 Extinguishing Media**

Suitable Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **5.2 Special Hazards Arising from Product**

No information available.

#### **5.3 Advice for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### **6. ACCIDENTAL RELEASE MEASURES**

---

#### **6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Ensure adequate ventilation. Avoid breathing vapors, mists or gas. See Section 8 for personal protection.

#### **6.2 Environmental Precautions**

See Section 12 for additional ecological information.

#### **6.3 Methods and Materials for Containment and Clean Up**

Prevent further leakage or spillage if safe to do so. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. This material and its container must be disposed of as hazardous waste.

### **7. HANDLING & STORAGE**

---

#### **7.1 Precautions for Safe Handling**

Ensure adequate ventilation. Avoid breathing vapors, mists or gas. See Section 8 for personal protection.

#### **7.2 Conditions for Safe Storage**

Keep/store only in original container. Storage Temperature: -20°C or below.

#### **7.3 Incompatibilities**

None known based on information supplied.

### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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#### **8.1 Control Parameters**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### **8.2 Appropriate Engineering Controls**

General industrial hygiene practices.

#### **8.3 Individual Protection Measures**

Eye/Face Protection: Wear safety glasses with side shields (or goggles).

Skin/Body Protection: Wear suitable protective clothing and gloves.  
Respiratory Protection: Use in well ventilated areas.  
General: Handle in accordance with good industrial hygiene and safety practice.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

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### **9.1 Information on Basic Physical and Chemical Properties**

|                                  |   |
|----------------------------------|---|
| Physical state:                  | Liquid  |
| Appearance:                      | Colorless   |
| Odor:                            | Mild  |
| pH:                              | Refer to <a href="http://trilinkbiotech.com">trilinkbiotech.com</a> for specific information. |
| Melting Point/Freezing Point:    | No information available  |
| Boiling Point/Boiling Range:     | No information available  |
| Flash Point:                     | No information available  |
| Evaporation Rate:                | No information available  |
| Flammability (solid, gas):       | No information available  |
| Upper/Lower Flammability Limits: | No information available  |
| Vapor Pressure:                  | No information available  |
| Vapor Density:                   | No information available  |
| Relative Density:                | No information available  |
| Specific Density:                | No information available  |
| Water Solubility:                | No information available  |
| Partition Coefficient:           | No information available  |
| Autoignition Temperature:        | No information available  |
| Decomposition Temperature:       | No information available  |
| Viscosity:                       | No information available  |
| Oxidizing Properties:            | No information available  |

## **10. STABILITY AND REACTIVITY**

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### **10.1 Reactivity**

No information available.

### **10.2 Chemical stability**

Stable under normal conditions.

### **10.3 Possibility of hazardous reactions**

Can react briskly with oxidizers, danger of explosion.

### **10.4 Conditions to avoid**

Incompatible materials. Ignition sources. Heat.

### **10.5 Incompatible materials**

Strong oxidizing agents.

### **10.6 Hazardous decomposition products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

## **11. TOXICOLOGICAL INFORMATION**

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### **11.1 Information on likely routes of exposure**

|              |   |
|--------------|---|
| Inhalation   | Avoid breathing vapors or mists. May cause irritation of respiratory tract.   |
| Eye contact  | Redness. May cause slight irritation.   |
| Skin contact | Prolonged contact may cause redness and irritation. Repeated exposure may cause skin dryness or cracking.   |
| Ingestion    | May cause drowsiness or dizziness. Ingestion causes burns of the upper digestive and respiratory tracts. Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting. |

## 11.2 Information on toxicological effects

Symptoms No information available.

## 11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure

|                                    |   |
|------------------------------------|---|
| Skin corrosion/Irritation:         | Mild                                    |
| Serious Eye Damage/Eye Irritation: | Mild                                    |
| Skin or Respiratory Sensitization: | No information available                |
| Germ Cell Mutagenicity:            | No information available                |
| Carcinogenicity:                   | No information available                |
| Reproductive Toxicity:             | No information available                |
| Developmental Toxicity:            | No information available                |
| Teratogenicity:                    | No information available                |
| STOT – Single Exposure:            | No information available                |
| STOT – Repeated Exposure:          | No information available                |
| Target Organs:                     | Kidneys, eyes, skin, respiratory system |
| Chronic Toxicity:                  | No information available                |
| Subchronic Toxicity:               | No information available                |
| Neurological Effects:              | No information available                |
| Aspiration Hazard:                 | No information available                |
| Other Adverse Effects:             | No information available                |

## 12. ECOLOGICAL INFORMATION

### 12.1 Marine pollutant

No information available

### 12.2 Ecotoxicity

No information available

### 12.3 Persistence and degradability

No information available

### 12.4 Bioaccumulation

No information available

### 12.5 Mobility

No information available

### 12.6 Other adverse effects

|                            |                          |
|----------------------------|--------------------------|
| Ozone:                     | No information available |
| Ozone Depletion Potential: | No information available |

### 13. DISPOSAL CONSIDERATIONS

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#### 13.1 Waste treatment methods

|                         |  |
|-------------------------|--|
| Relevant Information:   | Keep out of drains, sewers, ditches and waterways.   |
| Disposal Method:        | 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 a chemical incinerator. |
| Contaminated Packaging: | Dispose of as unused product.  |

### 14. TRANSPORT INFORMATION

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|      |                      |
|------|----------------------|
| Dot: | Not dangerous goods. |
|------|----------------------|

### 15. REGULATORY INFORMATION

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#### 15.1 US Federal Regulations

|                        |   |
|------------------------|---|
| Clean Water Act (CWA): | This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).   |
| CERCLA:                | This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material. |

#### 15.2 US State Regulations

|                            |   |
|----------------------------|---|
| California Proposition 65: | This product does not contain any Proposition 65 chemicals. |
|----------------------------|---|

### 16. OTHER INFORMATION

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#### 16.1 HMIS Rating

|                        |   |
|------------------------|---|
| Health Hazard:         | 0 |
| Flammability:          | 0 |
| Physical Hazard:       | 0 |
| Chronic Health Hazard: | 0 |

#### 16.2 NFPA Rating

|                    |   |
|--------------------|---|
| Health Hazard:     | 0 |
| Fire Hazard:       | 0 |
| Reactivity Hazard: | 0 |

#### 16.3 Preparation Information

|              |   |
|--------------|---|
| Prepared By: | TriLink BioTechnologies, Inc.<br>858-546-0004 |
| Issue Date:  | 2016-05-31                                    |
| Version:     | 3   |

#### 16.4 Further Information

Copyright 2016 TriLink BioTechnologies, inc. License granted to make unlimited paper copies for internal use only. The above information is believed to be accurate, but not necessarily all inclusive, and thus should only be used as a guide in the handling and use of this material. The

data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. TriLink BioTechnologies, Inc. shall not take responsibility for any damage resulting from handling or from contact with the above product.

**1. IDENTIFICATION**

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**1.1 Product Identifiers**

Product Name(s): Cytidine-5'-Triphosphate  
CTP  
Product Number: N-1511  
CAS Number: Not applicable.

**1.2 Uses**

Recommended use: Laboratory chemicals, manufacture of substances.  
Uses advised against: No Information Available

**1.3 Details of the Supplier of the Safety Data Sheet**

Supplier address: TriLink BioTechnologies, Inc.  
9955 Mesa Rim Road  
San Diego, CA 92121  
USA  
Company phone: 858-546-0004  
800-863-6801 (toll free)  
Fax: 858-546-0020  
Email address: info@trilinkbiotech.com

**1.4 Emergency Telephone Number**

Emergency Phone: 858-546-0004  
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7 am – 5 pm PST, Monday-Friday

**2. HAZARD IDENTIFICATION**

---

**2.1 Classification**

Not a dangerous substance or mixture

**2.2 Label Elements**

Not a hazardous substance or mixture.

**2.3 Hazards not Otherwise Classified (HNOC) or not covered by GHS**

None

**3. COMPOSITION**

---

**3.1 Substances**

No ingredients are hazardous according to OSHA criteria. No components need to be disclosed according to the applicable regulations.

**4. FIRST AID MEASURES**

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**4.1 First Aid Measures**

Eye contact: Immediately flush eyes with copious amounts of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.  
Skin contact: Immediately wash skin with soap and water.  
Inhalation: Remove to fresh air.  
Ingestion: If swallowed, wash out mouth with water provided person is conscious. Consult a physician.

#### **4.2 Most Important Symptoms and Effects, both Acute and Delayed**

No information available.

#### **4.3 Indication of any Immediate Medical Attention and Special Treatment Needed**

No information available.

### **5. FIRE-FIGHTING MEASURE**

---

#### **5.1 Extinguishing Media**

Suitable Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **5.2 Special Hazards Arising from Product**

No information available.

#### **5.3 Advice for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### **6. ACCIDENTAL RELEASE MEASURES**

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#### **6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Ensure adequate ventilation. Avoid breathing vapors, mists or gas. See Section 8 for personal protection.

#### **6.2 Environmental Precautions**

See Section 12 for additional ecological information.

#### **6.3 Methods and Materials for Containment and Clean Up**

Prevent further leakage or spillage if safe to do so. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. This material and its container must be disposed of as hazardous waste.

### **7. HANDLING & STORAGE**

---

#### **7.1 Precautions for Safe Handling**

Ensure adequate ventilation. Avoid breathing vapors, mists or gas. See Section 8 for personal protection.

#### **7.2 Conditions for Safe Storage**

Keep/store only in original container. Storage Temperature: -20°C or below.

#### **7.3 Incompatibilities**

None known based on information supplied.

### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

---

#### **8.1 Control Parameters**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### **8.2 Appropriate Engineering Controls**

General industrial hygiene practices.

#### **8.3 Individual Protection Measures**

Eye/Face Protection: Wear safety glasses with side shields (or goggles).



Skin/Body Protection: Wear suitable protective clothing and gloves.  
Respiratory Protection: Use in well ventilated areas.  
General: Handle in accordance with good industrial hygiene and safety practice.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

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### **9.1 Information on Basic Physical and Chemical Properties**

Physical state: Liquid  
Appearance: Colorless  
Odor: Mild  
pH: Refer to [trilinkbiotech.com](http://trilinkbiotech.com) for specific information.  
Melting Point/Freezing Point: No information available  
Boiling Point/Boiling Range: No information available  
Flash Point: No information available  
Evaporation Rate: No information available  
Flammability (solid, gas): No information available  
Upper/Lower Flammability Limits: No information available  
Vapor Pressure: No information available  
Vapor Density: No information available  
Relative Density: No information available  
Specific Density: No information available  
Water Solubility: No information available  
Partition Coefficient: No information available  
Autoignition Temperature: No information available  
Decomposition Temperature: No information available  
Viscosity: No information available  
Oxidizing Properties: No information available

## **10. STABILITY AND REACTIVITY**

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### **10.1 Reactivity**

No information available.

### **10.2 Chemical stability**

Stable under normal conditions.

### **10.3 Possibility of hazardous reactions**

Can react briskly with oxidizers, danger of explosion.

### **10.4 Conditions to avoid**

Incompatible materials. Ignition sources. Heat.

### **10.5 Incompatible materials**

Strong oxidizing agents.

### **10.6 Hazardous decomposition products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

## **11. TOXICOLOGICAL INFORMATION**

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### **11.1 Information on likely routes of exposure**

|              |   |
|--------------|---|
| Inhalation   | Avoid breathing vapors or mists. May cause irritation of respiratory tract.   |
| Eye contact  | Redness. May cause slight irritation.   |
| Skin contact | Prolonged contact may cause redness and irritation. Repeated exposure may cause skin dryness or cracking.   |
| Ingestion    | May cause drowsiness or dizziness. Ingestion causes burns of the upper digestive and respiratory tracts. Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting. |

## 11.2 Information on toxicological effects

Symptoms No information available.

## 11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure

|                                    |   |
|------------------------------------|---|
| Skin corrosion/Irritation:         | Mild                                    |
| Serious Eye Damage/Eye Irritation: | Mild                                    |
| Skin or Respiratory Sensitization: | No information available                |
| Germ Cell Mutagenicity:            | No information available                |
| Carcinogenicity:                   | No information available                |
| Reproductive Toxicity:             | No information available                |
| Developmental Toxicity:            | No information available                |
| Teratogenicity:                    | No information available                |
| STOT – Single Exposure:            | No information available                |
| STOT – Repeated Exposure:          | No information available                |
| Target Organs:                     | Kidneys, eyes, skin, respiratory system |
| Chronic Toxicity:                  | No information available                |
| Subchronic Toxicity:               | No information available                |
| Neurological Effects:              | No information available                |
| Aspiration Hazard:                 | No information available                |
| Other Adverse Effects:             | No information available                |

## 12. ECOLOGICAL INFORMATION

### 12.1 Marine pollutant

No information available

### 12.2 Ecotoxicity

No information available

### 12.3 Persistence and degradability

No information available

### 12.4 Bioaccumulation

No information available

### 12.5 Mobility

No information available

### 12.6 Other adverse effects

|                            |                          |
|----------------------------|--------------------------|
| Ozone:                     | No information available |
| Ozone Depletion Potential: | No information available |

### 13. DISPOSAL CONSIDERATIONS

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#### 13.1 Waste treatment methods

|                         |  |
|-------------------------|--|
| Relevant Information:   | Keep out of drains, sewers, ditches and waterways.   |
| Disposal Method:        | 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 a chemical incinerator. |
| Contaminated Packaging: | Dispose of as unused product.  |

### 14. TRANSPORT INFORMATION

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|      |                      |
|------|----------------------|
| Dot: | Not dangerous goods. |
|------|----------------------|

### 15. REGULATORY INFORMATION

---

#### 15.1 US Federal Regulations

|                        |   |
|------------------------|---|
| Clean Water Act (CWA): | This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).   |
| CERCLA:                | This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material. |

#### 15.2 US State Regulations

|                            |   |
|----------------------------|---|
| California Proposition 65: | This product does not contain any Proposition 65 chemicals. |
|----------------------------|---|

### 16. OTHER INFORMATION

---

#### 16.1 HMIS Rating

|                        |   |
|------------------------|---|
| Health Hazard:         | 0 |
| Flammability:          | 0 |
| Physical Hazard:       | 0 |
| Chronic Health Hazard: | 0 |

#### 16.2 NFPA Rating

|                    |   |
|--------------------|---|
| Health Hazard:     | 0 |
| Fire Hazard:       | 0 |
| Reactivity Hazard: | 0 |

#### 16.3 Preparation Information

|              |   |
|--------------|---|
| Prepared By: | TriLink BioTechnologies, Inc.<br>858-546-0004 |
| Issue Date:  | 2016-05-31                                    |
| Version:     | 3   |

#### 16.4 Further Information

Copyright 2016 TriLink BioTechnologies, inc. License granted to make unlimited paper copies for internal use only. The above information is believed to be accurate, but not necessarily all inclusive, and thus should only be used as a guide in the handling and use of this material. The

data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. TriLink BioTechnologies, Inc. shall not take responsibility for any damage resulting from handling or from contact with the above product.

## 1. IDENTIFICATION

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### 1.1 Product Identifiers

Product Name(s): Guanosine-5'-Triphosphate  
GTP  
Product Number: N-1512  
CAS Number: Not applicable.

### 1.2 Uses

Recommended use: Laboratory chemicals, manufacture of substances.  
Uses advised against: No Information Available

### 1.3 Details of the Supplier of the Safety Data Sheet

Supplier address: TriLink BioTechnologies, Inc.  
9955 Mesa Rim Road  
San Diego, CA 92121  
USA  
Company phone: 858-546-0004  
800-863-6801 (toll free)  
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### 2.1 Classification

Not a dangerous substance or mixture

### 2.2 Label Elements

Not a hazardous substance or mixture.

### 2.3 Hazards not Otherwise Classified (HNOC) or not covered by GHS

None

## 3. COMPOSITION

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### 3.1 Substances

No ingredients are hazardous according to OSHA criteria. No components need to be disclosed according to the applicable regulations.

## 4. FIRST AID MEASURES

---

### 4.1 First Aid Measures

Eye contact: Immediately flush eyes with copious amounts of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.  
Skin contact: Immediately wash skin with soap and water.  
Inhalation: Remove to fresh air.  
Ingestion: If swallowed, wash out mouth with water provided person is conscious. Consult a physician.

#### **4.2 Most Important Symptoms and Effects, both Acute and Delayed**

No information available.

#### **4.3 Indication of any Immediate Medical Attention and Special Treatment Needed**

No information available.

### **5. FIRE-FIGHTING MEASURE**

---

#### **5.1 Extinguishing Media**

Suitable Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **5.2 Special Hazards Arising from Product**

No information available.

#### **5.3 Advice for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### **6. ACCIDENTAL RELEASE MEASURES**

---

#### **6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Ensure adequate ventilation. Avoid breathing vapors, mists or gas. See Section 8 for personal protection.

#### **6.2 Environmental Precautions**

See Section 12 for additional ecological information.

#### **6.3 Methods and Materials for Containment and Clean Up**

Prevent further leakage or spillage if safe to do so. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. This material and its container must be disposed of as hazardous waste.

### **7. HANDLING & STORAGE**

---

#### **7.1 Precautions for Safe Handling**

Ensure adequate ventilation. Avoid breathing vapors, mists or gas. See Section 8 for personal protection.

#### **7.2 Conditions for Safe Storage**

Keep/store only in original container. Storage Temperature: -20°C or below.

#### **7.3 Incompatibilities**

None known based on information supplied.

### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

---

#### **8.1 Control Parameters**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### **8.2 Appropriate Engineering Controls**

General industrial hygiene practices.

#### **8.3 Individual Protection Measures**

Eye/Face Protection: Wear safety glasses with side shields (or goggles).

Skin/Body Protection: Wear suitable protective clothing and gloves.  
Respiratory Protection: Use in well ventilated areas.  
General: Handle in accordance with good industrial hygiene and safety practice.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

---

### **9.1 Information on Basic Physical and Chemical Properties**

|                                  |   |
|----------------------------------|---|
| Physical state:                  | Liquid  |
| Appearance:                      | Colorless   |
| Odor:                            | Mild  |
| pH:                              | Refer to tralinkbiotech.com for specific information. |
| Melting Point/Freezing Point:    | No information available                              |
| Boiling Point/Boiling Range:     | No information available                              |
| Flash Point:                     | No information available                              |
| Evaporation Rate:                | No information available                              |
| Flammability (solid, gas):       | No information available                              |
| Upper/Lower Flammability Limits: | No information available                              |
| Vapor Pressure:                  | No information available                              |
| Vapor Density:                   | No information available                              |
| Relative Density:                | No information available                              |
| Specific Density:                | No information available                              |
| Water Solubility:                | No information available                              |
| Partition Coefficient:           | No information available                              |
| Autoignition Temperature:        | No information available                              |
| Decomposition Temperature:       | No information available                              |
| Viscosity:                       | No information available                              |
| Oxidizing Properties:            | No information available                              |

## **10. STABILITY AND REACTIVITY**

---

### **10.1 Reactivity**

No information available.

### **10.2 Chemical stability**

Stable under normal conditions.

### **10.3 Possibility of hazardous reactions**

Can react briskly with oxidizers, danger of explosion.

### **10.4 Conditions to avoid**

Incompatible materials. Ignition sources. Heat.

### **10.5 Incompatible materials**

Strong oxidizing agents.

### **10.6 Hazardous decomposition products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

## **11. TOXICOLOGICAL INFORMATION**

---

### **11.1 Information on likely routes of exposure**

|              |   |
|--------------|---|
| Inhalation   | Avoid breathing vapors or mists. May cause irritation of respiratory tract.   |
| Eye contact  | Redness. May cause slight irritation.   |
| Skin contact | Prolonged contact may cause redness and irritation. Repeated exposure may cause skin dryness or cracking.   |
| Ingestion    | May cause drowsiness or dizziness. Ingestion causes burns of the upper digestive and respiratory tracts. Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting. |

## 11.2 Information on toxicological effects

Symptoms No information available.

## 11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure

|                                    |   |
|------------------------------------|---|
| Skin corrosion/Irritation:         | Mild                                    |
| Serious Eye Damage/Eye Irritation: | Mild                                    |
| Skin or Respiratory Sensitization: | No information available                |
| Germ Cell Mutagenicity:            | No information available                |
| Carcinogenicity:                   | No information available                |
| Reproductive Toxicity:             | No information available                |
| Developmental Toxicity:            | No information available                |
| Teratogenicity:                    | No information available                |
| STOT – Single Exposure:            | No information available                |
| STOT – Repeated Exposure:          | No information available                |
| Target Organs:                     | Kidneys, eyes, skin, respiratory system |
| Chronic Toxicity:                  | No information available                |
| Subchronic Toxicity:               | No information available                |
| Neurological Effects:              | No information available                |
| Aspiration Hazard:                 | No information available                |
| Other Adverse Effects:             | No information available                |

## 12. ECOLOGICAL INFORMATION

### 12.1 Marine pollutant

No information available

### 12.2 Ecotoxicity

No information available

### 12.3 Persistence and degradability

No information available

### 12.4 Bioaccumulation

No information available

### 12.5 Mobility

No information available

### 12.6 Other adverse effects

|                            |                          |
|----------------------------|--------------------------|
| Ozone:                     | No information available |
| Ozone Depletion Potential: | No information available |



### 13. DISPOSAL CONSIDERATIONS

---

#### 13.1 Waste treatment methods

|                         |  |
|-------------------------|--|
| Relevant Information:   | Keep out of drains, sewers, ditches and waterways.   |
| Disposal Method:        | 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 a chemical incinerator. |
| Contaminated Packaging: | Dispose of as unused product.  |

### 14. TRANSPORT INFORMATION

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|      |                      |
|------|----------------------|
| Dot: | Not dangerous goods. |
|------|----------------------|

### 15. REGULATORY INFORMATION

---

#### 15.1 US Federal Regulations

|                        |   |
|------------------------|---|
| Clean Water Act (CWA): | This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).   |
| CERCLA:                | This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material. |

#### 15.2 US State Regulations

|                            |   |
|----------------------------|---|
| California Proposition 65: | This product does not contain any Proposition 65 chemicals. |
|----------------------------|---|

### 16. OTHER INFORMATION

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#### 16.1 HMIS Rating

|                        |   |
|------------------------|---|
| Health Hazard:         | 0 |
| Flammability:          | 0 |
| Physical Hazard:       | 0 |
| Chronic Health Hazard: | 0 |

#### 16.2 NFPA Rating

|                    |   |
|--------------------|---|
| Health Hazard:     | 0 |
| Fire Hazard:       | 0 |
| Reactivity Hazard: | 0 |

#### 16.3 Preparation Information

|              |   |
|--------------|---|
| Prepared By: | TriLink BioTechnologies, Inc.<br>858-546-0004 |
| Issue Date:  | 2016-05-31                                    |
| Version:     | 3   |

#### 16.4 Further Information

Copyright 2016 TriLink BioTechnologies, inc. License granted to make unlimited paper copies for internal use only. The above information is believed to be accurate, but not necessarily all inclusive, and thus should only be used as a guide in the handling and use of this material. The

data in this SDS relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process. TriLink BioTechnologies, Inc. shall not take responsibility for any damage resulting from handling or from contact with the above product.

## 1. IDENTIFICATION

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### 1.1 Product Identifiers

Product Name(s): Uridine-5'-Triphosphate  
UTP  
Product Number: N-1513  
CAS Number: Not applicable.

### 1.2 Uses

Recommended use: Laboratory chemicals, manufacture of substances.  
Uses advised against: No Information Available

### 1.3 Details of the Supplier of the Safety Data Sheet

Supplier address: TriLink BioTechnologies, Inc.  
9955 Mesa Rim Road  
San Diego, CA 92121  
USA  
Company phone: 858-546-0004  
800-863-6801 (toll free)  
Fax: 858-546-0020  
Email address: info@trilinkbiotech.com

### 1.4 Emergency Telephone Number

Emergency Phone: 858-546-0004  
800-863-6801 (toll free)  
7 am – 5 pm PST, Monday-Friday

## 2. HAZARD IDENTIFICATION

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### 2.1 Classification

Not a dangerous substance or mixture

### 2.2 Label Elements

Not a hazardous substance or mixture.

### 2.3 Hazards not Otherwise Classified (HNOC) or not covered by GHS

None

## 3. COMPOSITION

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### 3.1 Substances

No ingredients are hazardous according to OSHA criteria. No components need to be disclosed according to the applicable regulations.

## 4. FIRST AID MEASURES

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### 4.1 First Aid Measures

Eye contact: Immediately flush eyes with copious amounts of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.  
Skin contact: Immediately wash skin with soap and water.  
Inhalation: Remove to fresh air.  
Ingestion: If swallowed, wash out mouth with water provided person is conscious. Consult a physician.

#### **4.2 Most Important Symptoms and Effects, both Acute and Delayed**

No information available.

#### **4.3 Indication of any Immediate Medical Attention and Special Treatment Needed**

No information available.

### **5. FIRE-FIGHTING MEASURE**

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#### **5.1 Extinguishing Media**

Suitable Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

#### **5.2 Special Hazards Arising from Product**

No information available.

#### **5.3 Advice for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

### **6. ACCIDENTAL RELEASE MEASURES**

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#### **6.1 Personal Precautions, Protective Equipment and Emergency Procedures**

Ensure adequate ventilation. Avoid breathing vapors, mists or gas. See Section 8 for personal protection.

#### **6.2 Environmental Precautions**

See Section 12 for additional ecological information.

#### **6.3 Methods and Materials for Containment and Clean Up**

Prevent further leakage or spillage if safe to do so. Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. This material and its container must be disposed of as hazardous waste.

### **7. HANDLING & STORAGE**

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#### **7.1 Precautions for Safe Handling**

Ensure adequate ventilation. Avoid breathing vapors, mists or gas. See Section 8 for personal protection.

#### **7.2 Conditions for Safe Storage**

Keep/store only in original container. Storage Temperature: -20°C or below.

#### **7.3 Incompatibilities**

None known based on information supplied.

### **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

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#### **8.1 Control Parameters**

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

#### **8.2 Appropriate Engineering Controls**

General industrial hygiene practices.

#### **8.3 Individual Protection Measures**

Eye/Face Protection: Wear safety glasses with side shields (or goggles).

Skin/Body Protection: Wear suitable protective clothing and gloves.  
Respiratory Protection: Use in well ventilated areas.  
General: Handle in accordance with good industrial hygiene and safety practice.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

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### **9.1 Information on Basic Physical and Chemical Properties**

Physical state: Liquid  
Appearance: Colorless  
Odor: Mild  
pH: Refer to [trilinkbiotech.com](http://trilinkbiotech.com) for specific information.  
Melting Point/Freezing Point: No information available  
Boiling Point/Boiling Range: No information available  
Flash Point: No information available  
Evaporation Rate: No information available  
Flammability (solid, gas): No information available  
Upper/Lower Flammability Limits: No information available  
Vapor Pressure: No information available  
Vapor Density: No information available  
Relative Density: No information available  
Specific Density: No information available  
Water Solubility: No information available  
Partition Coefficient: No information available  
Autoignition Temperature: No information available  
Decomposition Temperature: No information available  
Viscosity: No information available  
Oxidizing Properties: No information available

## **10. STABILITY AND REACTIVITY**

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### **10.1 Reactivity**

No information available.

### **10.2 Chemical stability**

Stable under normal conditions.

### **10.3 Possibility of hazardous reactions**

Can react briskly with oxidizers, danger of explosion.

### **10.4 Conditions to avoid**

Incompatible materials. Ignition sources. Heat.

### **10.5 Incompatible materials**

Strong oxidizing agents.

### **10.6 Hazardous decomposition products**

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide (CO<sub>2</sub>).

## **11. TOXICOLOGICAL INFORMATION**

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### **11.1 Information on likely routes of exposure**

|              |   |
|--------------|---|
| Inhalation   | Avoid breathing vapors or mists. May cause irritation of respiratory tract.   |
| Eye contact  | Redness. May cause slight irritation.   |
| Skin contact | Prolonged contact may cause redness and irritation. Repeated exposure may cause skin dryness or cracking.   |
| Ingestion    | May cause drowsiness or dizziness. Ingestion causes burns of the upper digestive and respiratory tracts. Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting. |

## 11.2 Information on toxicological effects

Symptoms No information available.

## 11.3 Delayed and immediate effects as well as chronic effects from short and long-term exposure

|                                    |   |
|------------------------------------|---|
| Skin corrosion/Irritation:         | Mild                                    |
| Serious Eye Damage/Eye Irritation: | Mild                                    |
| Skin or Respiratory Sensitization: | No information available                |
| Germ Cell Mutagenicity:            | No information available                |
| Carcinogenicity:                   | No information available                |
| Reproductive Toxicity:             | No information available                |
| Developmental Toxicity:            | No information available                |
| Teratogenicity:                    | No information available                |
| STOT – Single Exposure:            | No information available                |
| STOT – Repeated Exposure:          | No information available                |
| Target Organs:                     | Kidneys, eyes, skin, respiratory system |
| Chronic Toxicity:                  | No information available                |
| Subchronic Toxicity:               | No information available                |
| Neurological Effects:              | No information available                |
| Aspiration Hazard:                 | No information available                |
| Other Adverse Effects:             | No information available                |

## 12. ECOLOGICAL INFORMATION

### 12.1 Marine pollutant

No information available

### 12.2 Ecotoxicity

No information available

### 12.3 Persistence and degradability

No information available

### 12.4 Bioaccumulation

No information available

### 12.5 Mobility

No information available

### 12.6 Other adverse effects

|                            |                          |
|----------------------------|--------------------------|
| Ozone:                     | No information available |
| Ozone Depletion Potential: | No information available |

### 13. DISPOSAL CONSIDERATIONS

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#### 13.1 Waste treatment methods

|                         |  |
|-------------------------|--|
| Relevant Information:   | Keep out of drains, sewers, ditches and waterways.   |
| Disposal Method:        | 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 a chemical incinerator. |
| Contaminated Packaging: | Dispose of as unused product.  |

### 14. TRANSPORT INFORMATION

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|      |                      |
|------|----------------------|
| Dot: | Not dangerous goods. |
|------|----------------------|

### 15. REGULATORY INFORMATION

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#### 15.1 US Federal Regulations

|                        |   |
|------------------------|---|
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| Chronic Health Hazard: | 0 |

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