

## 1. IDENTIFICATION

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### 1.1 Product Identifiers

Product Name(s): CleanCap™ Cas9 mRNA  
CleanCap™ CRISPR Associated Protein 9 mRNA  
Product Number: L-7606  
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  
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: At or below -40°C.

#### **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.
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### 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.
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### 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 858-546-0004
Issue Date:	2017-01-11
Version:	3

#### 16.4 Further Information

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