

MATERIAL SAFETY DATA SHEET

Telephone: (978)927-5054
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Fax: (978)921-1350
E-mail: info@neb.com
Revision Date: 10/09

ProtoScript®AMV LongAmp™ *Taq* RT-PCR Kit E5300

SECTION 1-CHEMICAL INFORMATION

Product Name: dATP Sara 313: No Cas.# 1927-31-7

SECTION 2-COMPOSITION/INFORMATION ON INGREDIENT

1. Water Cas.# 7732-18-5

2. 2´ Deoxyadenosine 5´- triphosphate disodium salt Molecular weight: 535.15 Formula: $C_{10}H_{14}N_5Na_2O_{12}P_3$

SECTION 3-HAZARDOUS IDENTIFICATION

Emergency Overview: The hazards identified with this product are those associated with the following component: None **OSHA Hazards:** Irritant

HMIS Rating

Health: 1 Flammability: 0 Reactivity: 0

NFPA Rating

Health: 1 Flammability: 0 Reactivity: 0

SECTION 4-FIRST AID MEASURES

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

Inhalation Exposure: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water. Call a physician.

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

SECTION 5-FIRE FIGHTING MEASURES

Extinguishing Media: Water spray. Carbon dioxide, dry chemical powder or appropriate foam.

Special Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Fire and Explosion Hazards: Combustible liquid. Emits toxic fumes under fire conditions.

Flammability: N/A

SECTION 6-ACCIDENTAL RELEASE MEASURES

Personal Precautions: Exercise appropriate precaution to minimize direct contact with skin or eyes. Avoid dust formation.

Environmental Precautions: Do not let product enter drains.

Handling: Provide appropriate exhaust ventilation.

Storage: Keep tightly closed in a dry and well ventilated place. Store at -20°C.

SECTION 8-EXPOSURE CONTROLS/PPE

Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment: Gloves suitable to prevent exposure.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles. **Skin Specific:** Chemical resistant

General Hygiene Measures: Wash hands thoroughly after handling. Wash contaminated clothing before use.

Respiratory Protection: None required.

SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear Liquid Color: Colorless

Property Value Temperature or Pressure

N/A На Boiling Point Range: N/A Melting Point Range: N/A Freezing Point: N/A Vapor Pressure: N/A Vapor Density: N/A Volatile%: N/A Vicosity: N/A Auto Ignition Temp: N/A Refractive Index: N/A Solubility in Water: N/A

SECTION 10-STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Materials to Avoid: Acid chlorides, Phosphorus halides, strong oxidizing agents, strong acids, strong reducing agents.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulfur dioxides.

Hazardous Polymerization: Will not occur.

SECTION 11-TOXICOLOGICAL INFORMATION

Route of Exposure

Skin Absorption: May be harmful if absorbed.

Contact: May cause skin irritation. **Eye Contact:** May cause eye irritation.

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

Ingestion: May be harmful if swallowed.

SECTION 12-ECOLOGICAL INFORMATION

Data not available at this time.

SECTION 13-DISPOSAL CONSIDERATIONS

Appropriate Method of Disposal of Substance or Preparation: Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

SECTION 14-TRANSPORT INFORMATION

DOT

Proper Shipping Name: None Non-hazardous for air transport.

IMDG

Non-hazardous

IATA

Hazard Label: None

Non-hazardous for air transport.

SECTION 15-REGULATORY INFORMATION

OSHA Hazards: Irritant.

US Classification and Label Test

US Statements: Caution. Avoid contact and inhalation. Target Organ (s): Kidneys.

United States Regulatory Information:

Sara Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the

information required by the CPR.

DSL: Yes NDSL: No

EU Additional Classification

S: 23 24/25

Safety Statements: Do not breath vapor. Avoid contact with skin and eyes.

Massachusetts Right To Know Components

Not subject to the Massachusetts Right to Know Act

SECTION 16-OTHER INFORMATION

DISCLAIMER

For R & D use only. Not for drug, household or other uses.



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ProtoScript®AMV LongAmp™ *Taq* RT-PCR Kit E5300

SECTION 1-CHEMICAL INFORMATION

Product Name: dCTP Sara 313: No Cas.# 102783-51-7

SECTION 2-COMPOSITION/INFORMATION ON INGREDIENT

1. Water Cas.# 7732-18-5

2. 2´ Deoxycytidine 5´- triphosphate disodium salt Molecular 511.12 Formula: $C_9H_{14}N_3Na_2O_{13}P_3$

SECTION 3-HAZARDOUS IDENTIFICATION

Emergency Overview: The hazards identified with this product are those associated with the following component: None OSHA Hazards: Irritant

HMIS Rating

Health: 1 Flammability: 0 Reactivity: 0

NFPA Rating Health: 0 Flammability: 0

Reactivity: 0

SECTION 4-FIRST AID MEASURES

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

Inhalation Exposure: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water. Call a physician.

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

SECTION 5-FIRE FIGHTING MEASURES

Extinguishing Media: Water spray. Carbon dioxide, dry chemical powder or appropriate foam.

Special Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Fire and Explosion Hazards: Combustible liquid. Emits toxic fumes under fire conditions.

Flammability: N/A

SECTION 6-ACCIDENTAL RELEASE MEASURES

Personal Precautions: Exercise appropriate precaution to minimize direct contact with skin or eyes. Avoid dust formation.

Environmental Precautions: Do not let product enter drains.

Handling: Provide appropriate exhaust ventilation.

Storage: Keep tightly closed in a dry and well ventilated place. Store at -20°C.

SECTION 8-EXPOSURE CONTROLS/PPE

Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment: Gloves suitable to prevent exposure.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles. **Skin Specific:** Chemical resistant

General Hygiene Measures: Wash hands thoroughly after handling. Wash contaminated clothing before use.

Respiratory Protection: None required.

SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear Liquid Color: Colorless

Property Value Temperature or Pressure N/A

рΗ Boiling Point Range: N/A Melting Point Range: N/A Freezing Point: N/A Vapor Pressure: N/A Vapor Density: N/A Volatile%: N/A Vicosity: N/A Auto Ignition Temp: N/A Refractive Index: N/A Solubility in Water: N/A

SECTION 10-STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Materials to Avoid: Acid chlorides, Phosphorus halides, strong oxidizing agents, strong acids, strong reducing agents.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulfur dioxides.

Hazardous Polymerization: Will not occur.

SECTION 11-TOXICOLOGICAL INFORMATION

Route of Exposure

Skin Absorption: May be harmful if absorbed.

Contact: May cause skin irritation. **Eye Contact:** May cause eye irritation.

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

Ingestion: May be harmful if swallowed.

SECTION 12–ECOLOGICAL INFORMATION

Appropriate Method of Disposal of Substance or Preparation: Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

SECTION 14-TRANSPORT INFORMATION

DOT

Proper Shipping Name: None Non-hazardous for air transport.

IMDG

Non-hazardous

IATA

Hazard Label: None

Non-hazardous for air transport.

SECTION 15-REGULATORY INFORMATION

OSHA Hazards: Irritant.

US Classification and Label Test

US Statements: Caution. Avoid contact and inhalation. Target Organ (s): Kidneys.

United States Regulatory Information:

Sara Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the

information required by the CPR.

DSL: Yes NDSL: No

EU Additional Classification

S: 23 24/25

Safety Statements: Do not breath vapor. Avoid contact with skin and eyes.

Massachusetts Right To Know Components

Not subject to the Massachusetts Right to Know Act

SECTION 16-OTHER INFORMATION

DISCLAIMER

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ProtoScript®AMV LongAmp™ Taq RT-PCR Kit E5300

SECTION 1-CHEMICAL INFORMATION

Product Name: dTTP Sara 313: No Cas.# 18423-43-3

SECTION 2-COMPOSITION/INFORMATION ON INGREDIENT

1. Water Cas.# 7732-18-5

2. 2´ Deoxythymidine 5´- triphosphate sodium salt Molecular weight: 504.15 Formula: $C_{10}H_{16}N_2O_{14}P_3Na$

SECTION 3-HAZARDOUS IDENTIFICATION

Emergency Overview: The hazards identified with this product are those associated with the following component: None

OSHA Hazards: Irritant

HMIS Rating

Health: 1 Flammability: 0 Reactivity: 0

NFPA Rating

Health: 0 Flammability: 0 Reactivity: 0

SECTION 4-FIRST AID MEASURES

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

Inhalation Exposure: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water. Call a physician.

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

SECTION 5-FIRE FIGHTING MEASURES

Extinguishing Media: Water spray. Carbon dioxide, dry chemical powder or appropriate foam.

Special Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Fire and Explosion Hazards: Combustible liquid. Emits toxic fumes under fire conditions.

Flammability: N/A

SECTION 6-ACCIDENTAL RELEASE MEASURES

Personal Precautions: Exercise appropriate precaution to minimize direct contact with skin or eyes. Avoid dust formation.

Environmental Precautions: Do not let product enter drains.

Handling: Provide appropriate exhaust ventilation.

Storage: Keep tightly closed in a dry and well ventilated place. Store at -20°C.

SECTION 8-EXPOSURE CONTROLS/PPE

Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment: Gloves suitable to prevent exposure.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles. **Skin Specific:** Chemical resistant

General Hygiene Measures: Wash hands thoroughly after handling. Wash contaminated clothing before use.

Respiratory Protection: None required.

SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear Liquid Color: Colorless

Property Value Temperature or Pressure

N/A На Boiling Point Range: N/A Melting Point Range: N/A Freezing Point: N/A Vapor Pressure: N/A Vapor Density: N/A Volatile%: N/A Vicosity: N/A Auto Ignition Temp: N/A Refractive Index: N/A Solubility in Water: N/A

SECTION 10-STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Materials to Avoid: Acid chlorides, Phosphorus halides, strong oxidizing agents, strong acids, strong reducing agents.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulfur dioxides.

Hazardous Polymerization: Will not occur.

SECTION 11-TOXICOLOGICAL INFORMATION

Route of Exposure

Skin Absorption: May be harmful if absorbed.

Contact: May cause skin irritation. **Eye Contact:** May cause eye irritation.

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

Ingestion: May be harmful if swallowed.

SECTION 12-ECOLOGICAL INFORMATION

Appropriate Method of Disposal of Substance or Preparation: Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

SECTION 14-TRANSPORT INFORMATION

DOT

Proper Shipping Name: None Non-hazardous for air transport.

IMDG

Non-hazardous

IATA

Hazard Label: None

Non-hazardous for air transport.

SECTION 15-REGULATORY INFORMATION

OSHA Hazards: Irritant.

US Classification and Label Test

US Statements: Caution. Avoid contact and inhalation. Target Organ (s): Kidneys.

United States Regulatory Information:

Sara Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the

information required by the CPR.

DSL: Yes NDSL: No

EU Additional Classification

S: 23 24/25

Safety Statements: Do not breath vapor. Avoid contact with skin and eyes.

Massachusetts Right To Know Components

Not subject to the Massachusetts Right to Know Act

SECTION 16-OTHER INFORMATION

DISCLAIMER

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NEW ENGLAND BioLabs inc.

New England Biolabs 240 County Road Ipswich, MA 01938

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Revision Date: 10/09

ProtoScript®AMV LongAmp™ Taq RT-PCR Kit E5300

SECTION 1-CHEMICAL INFORMATION

Product Name: dGTP Sara 313: No Cas.# 93919-41-6

SECTION 2-COMPOSITION/INFORMATION ON INGREDIENT

1. Water Cas.# 7732-18-5

2. 2´ Deoxyguanosine 5´- triphosphate trisodium salt Molecular 507.18 Formula: $C_{10}H_{13}N_5Na_3O_{13}P_3$

SECTION 3-HAZARDOUS IDENTIFICATION

Emergency Overview: The hazards identified with this product are those associated with the following component: None OSHA Hazards: Irritant

HMIS Rating

Health: 1 Flammability: 0

Reactivity: 0

NFPA Rating

Health: 1 Flammability: 0

Reactivity: 0

SECTION 4-FIRST AID MEASURES

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

Inhalation Exposure: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water. Call a physician.

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

SECTION 5-FIRE FIGHTING MEASURES

Extinguishing Media: Water spray. Carbon dioxide, dry chemical powder or appropriate foam.

Special Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Fire and Explosion Hazards: Combustible liquid. Emits toxic fumes under fire conditions.

Flammability: N/A

SECTION 6-ACCIDENTAL RELEASE MEASURES

Personal Precautions: Exercise appropriate precaution to minimize direct contact with skin or eyes. Avoid dust formation.

Environmental Precautions: Do not let product enter drains.

Handling: Provide appropriate exhaust ventilation.

Storage: Keep tightly closed in a dry and well ventilated place. Store at -20°C.

SECTION 8-EXPOSURE CONTROLS/PPE

Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment: Gloves suitable to prevent exposure.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles. **Skin Specific:** Chemical resistant

General Hygiene Measures: Wash hands thoroughly after handling. Wash contaminated clothing before use.

Respiratory Protection: None required.

SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear Liquid Color: Colorless

Property Value Temperature or Pressure

N/A На Boiling Point Range: N/A Melting Point Range: N/A Freezing Point: N/A Vapor Pressure: N/A Vapor Density: N/A Volatile%: N/A Vicosity: N/A Auto Ignition Temp: N/A Refractive Index: N/A Solubility in Water: N/A

SECTION 10-STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Materials to Avoid: Acid chlorides, Phosphorus halides, strong oxidizing agents, strong acids, strong reducing agents.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulfur dioxides.

Hazardous Polymerization: Will not occur.

SECTION 11-TOXICOLOGICAL INFORMATION

Route of Exposure

Skin Absorption: May be harmful if absorbed.

Contact: May cause skin irritation. **Eye Contact:** May cause eye irritation.

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

Ingestion: May be harmful if swallowed.

SECTION 12-ECOLOGICAL INFORMATION

Appropriate Method of Disposal of Substance or Preparation: Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

SECTION 14-TRANSPORT INFORMATION

DOT

Proper Shipping Name: None Non-hazardous for air transport.

IMDG

Non-hazardous

IATA

Hazard Label: None

Non-hazardous for air transport.

SECTION 15-REGULATORY INFORMATION

OSHA Hazards: Irritant.

US Classification and Label Test

US Statements: Caution. Avoid contact and inhalation. Target Organ (s): Kidneys.

United States Regulatory Information:

Sara Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the

information required by the CPR.

DSL: Yes NDSL: No

EU Additional Classification

S: 23 24/25

Safety Statements: Do not breath vapor. Avoid contact with skin and eyes.

Massachusetts Right To Know Components

Not subject to the Massachusetts Right to Know Act

SECTION 16-OTHER INFORMATION

DISCLAIMER

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ProtoScript®AMV LongAmp™ *Taq* RT-PCR Kit E5300

SECTION 1-CHEMICAL INFORMATION

Product Name: AMV Reverse Transcriptase Reaction Buffer Sara 313: No Cas.# None

SECTION 2-COMPOSITION/INFORMATION ON INGREDIENT

 1. Tris-HCI
 Cas.
 #77-86-1

 2. Potassium acetate
 Cas.
 #127-08-2

 3. Dithiothreitol
 Cas.
 #3483-12-3

 4. Magnesium acetate
 Cas.
 #142-72-3

SECTION 3-HAZARDOUS IDENTIFICATION

Emergency Overview: The hazards identified with this product are those associated with the following component: None **OSHA Hazards:** No known hazards.

HMIS Rating

Health: 1* Flammability: 0 Reactivity: 0 NFPA Rating

Health: 1 Flammability: 0 Reactivity: 0

SECTION 4-FIRST AID MEASURES

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

Inhalation Exposure: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water.

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

SECTION 5-FIRE FIGHTING MEASURES

Extinguishing Media: Water spray. Carbon dioxide, dry chemical powder or appropriate foam.

Special Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Fire and Explosion Hazards: Combustible liquid. Emits toxic fumes under fire conditions.

Flammability: N/A

SECTION 6-ACCIDENTAL RELEASE MEASURES

Personal Precautions: Exercise appropriate precaution to minimize direct contact with skin or eyes. Avoid dust formation.

Environmental Precautions: Do not let product enter drains.

^{*}Additional chronic hazards present.

Handling: Provide appropriate exhaust ventilation.

Storage: Keep tightly closed in a dry and well ventilated place. Store at -20°C.

SECTION 8-EXPOSURE CONTROLS/PPE

Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment: Gloves suitable to prevent exposure.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles. **Skin Specific:** Chemical resistant

General Hygiene Measures: Wash hands thoroughly after handling. Wash contaminated clothing before use.

Respiratory Protection: None required.

SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear Liquid Color: Colorless

Property Value Temperature or Pressure

7.6 На Boiling Point Range: N/A Melting Point Range: N/A Freezing Point: N/A Vapor Pressure: N/A Vapor Density: N/A Volatile%: N/A Vicosity: N/A Auto Ignition Temp: N/A Refractive Index: N/A Solubility in Water: Soluble

SECTION 10-STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Materials to Avoid: Acid chlorides, Phosphorus halides, strong oxidizing agents, strong acids, strong reducing agents.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulfur dioxides.

Hazardous Polymerization: Will not occur.

SECTION 11-TOXICOLOGICAL INFORMATION

Route of Exposure

Skin Absorption: May be harmful if absorbed.

Contact: May cause skin irritation. **Eye Contact:** May cause eye irritation.

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

Ingestion: May be harmful if swallowed.

SECTION 12-ECOLOGICAL INFORMATION

Appropriate Method of Disposal of Substance or Preparation: Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

SECTION 14-TRANSPORT INFORMATION

DOT

Proper Shipping Name: None Non-hazardous for air transport.

IMDG

Non-hazardous

IATA

Hazard Label: None

Non-hazardous for air transport.

SECTION 15-REGULATORY INFORMATION

OSHA Hazards: None known.
US Classification and Label Test

US Statements: Caution. Avoid contact and inhalation. Target Organ (s): Kidneys.

United States Regulatory Information:

Sara Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the

information required by the CPR.

DSL: Yes NDSL: No

EU Additional Classification

S: 23 24/25

Safety Statements: Do not breath vapor. Avoid contact with skin and eyes.

Massachusetts Right To Know Components

Not subject to the Massachusetts Right to Know Act

SECTION 16-OTHER INFORMATION

DISCLAIMER

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MATERIAL SAFETY DATA SHEET



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Revision Date: 10/09

ProtoScript®AMV LongAmp™ *Taq* RT-PCR Kit E5300

SECTION 1-CHEMICAL INFORMATION

Product Name: Murine RNase Inhibitor Sara 313: No Cas.# 56-81-6

SECTION 2-COMPOSITION/INFORMATION ON INGREDIENT

 1. Glycerol
 50%
 Cas.# 56-81-6

 2. Potassium Chloride
 < 1%</td>
 Cas.# 7447-40-7

 3. K-HEPES
 < 1%</td>
 Cas.# NA

 4. Dithiothreitol
 < 1%</td>
 Cas. # 3483-12-3

SECTION 3-HAZARDOUS IDENTIFICATION

Emergency Overview: The hazards identified with this product are those associated with the following component: None

OSHA Hazards: Irritant

HMIS Rating

Health: 2 Flammability: 0 Reactivity: 0 NFPA Rating Health: 2

Flammability: 0
Reactivity: 0

SECTION 4-FIRST AID MEASURES

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

Inhalation Exposure: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water. Call a physician.

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

SECTION 5-FIRE FIGHTING MEASURES

Extinguishing Media: Water spray. Carbon dioxide, dry chemical powder or appropriate foam.

Special Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Fire and Explosion Hazards: Combustible liquid. Emits toxic fumes under fire conditions.

Flammability: N/A

SECTION 6-ACCIDENTAL RELEASE MEASURES

Personal Precautions: Exercise appropriate precaution to minimize direct contact with skin or eyes. Avoid dust formation.

Environmental Precautions: Do not let product enter drains.

Handling: Provide appropriate exhaust ventilation.

Storage: Keep tightly closed in a dry and well ventilated place. Store at -20°C.

SECTION 8-EXPOSURE CONTROLS/PPE

Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment: Gloves suitable to prevent exposure.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles. **Skin Specific:** Chemical resistant

General Hygiene Measures: Wash hands thoroughly after handling. Wash contaminated clothing before use.

Respiratory Protection: None required.

SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear Liquid Color: Colorless

Property Value Temperature or Pressure

N/A На Boiling Point Range: N/A Melting Point Range: N/A Freezing Point: N/A Vapor Pressure: N/A Vapor Density: N/A Volatile%: N/A Vicosity: N/A Auto Ignition Temp: N/A Refractive Index: N/A Solubility in Water: N/A

SECTION 10-STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Materials to Avoid: Acid chlorides, Phosphorus halides, strong oxidizing agents, strong acids, strong reducing agents.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulfur dioxides.

Hazardous Polymerization: Will not occur.

SECTION 11-TOXICOLOGICAL INFORMATION

Route of Exposure

Skin Absorption: May be harmful if absorbed.

Contact: May cause skin irritation. **Eye Contact:** May cause eye irritation.

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

Ingestion: May be harmful if swallowed.

SECTION 12-ECOLOGICAL INFORMATION

Appropriate Method of Disposal of Substance or Preparation: Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

SECTION 14-TRANSPORT INFORMATION

D01

Proper Shipping Name: None Non-hazardous for air transport.

IMDG

Non-hazardous

IATA

Hazard Label: None

Non-hazardous for air transport.

SECTION 15-REGULATORY INFORMATION

OSHA Hazards: Irritant.

US Classification and Label Test

US Statements: Caution. Avoid contact and inhalation. Target Organ (s): Kidneys.

United States Regulatory Information:

Sara Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the

information required by the CPR.

DSL: Yes NDSL: No

EU Additional Classification

S: 23 24/25

Safety Statements: Do not breath vapor. Avoid contact with skin and eyes.

Massachusetts Right To Know Components

Not subject to the Massachusetts Right to Know Act

SECTION 16-OTHER INFORMATION

DISCLAIMER

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MATERIAL SAFETY DATA SHEET

Telephone: (978)927-5054
Toll free: (800)632-5227
Fax: (978)921-1350
E-mail: info@neb.com
Revision Date: 9/09

ProtoScript®AMV LongAmp™ *Taq* RT-PCR Kit E5300

SECTION 1-CHEMICAL INFORMATION

Product Name: AMV Reverse Transcriptase Sara 313: No Cas.# 9068-38-6

SECTION 2-COMPOSITION/INFORMATION ON INGREDIENT

1.	Glycerol	50%	Cas.#	56-81-6
2.	Potassium Phosphate	< 1%	Cas.#	7778-77-2
4.	Triton X-100	< 1%	Cas.#	9002-93-1
3.	Dithiothreitol	< 1%	Cas.#	3483-12-3

SECTION 3-HAZARDOUS IDENTIFICATION

Emergency Overview: The hazards identified with this product are those associated with the following component: None **OSHA Hazards:** No known hazards.

HMIS Rating

Health: 1*
Flammability: 0
Reactivity: 1
NFPA Rating
Health: 1

Flammability: 0 Reactivity: 1

SECTION 4-FIRST AID MEASURES

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

Inhalation Exposure: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water.

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

SECTION 5-FIRE FIGHTING MEASURES

Extinguishing Media: Water spray. Carbon dioxide, dry chemical powder or appropriate foam.

Special Fire Fighting Procedures: Wear self contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

Fire and Explosion Hazards: Combustible liquid. Emits toxic fumes under fire conditions.

Flammability: N/A

SECTION 6-ACCIDENTAL RELEASE MEASURES

Personal Precautions: Exercise appropriate precaution to minimize direct contact with skin or eyes. Avoid dust formation.

Environmental Precautions: Do not let product enter drains.

^{*}Additional chronic hazards present.

Handling: Provide appropriate exhaust ventilation.

Storage: Keep tightly closed in a dry and well ventilated place. Store at -20°C.

SECTION 8-EXPOSURE CONTROLS/PPE

Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment: Gloves suitable to prevent exposure.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles. **Skin Specific:** Chemical resistant

General Hygiene Measures: Wash hands thoroughly after handling. Wash contaminated clothing before use.

Respiratory Protection: None required.

SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear Liquid Color: Colorless

Property Value Temperature or Pressure

Boiling Point Range: 182°C Melting Point Range: 20°C

Flash Point: 320°F, 160°C Method: Closed cup

Auto Ignition Temp: 370°C Vapor Pressure: <1 mmHg 20°C

Vapor Density: 3.1 g/l Specific Gravity: 1.262 Solubility in Water: Soluble

SECTION 10-STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Materials to Avoid: Acid chlorides, Phosphorus halides, strong oxidizing agents, strong acids, strong reducing agents.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulfur dioxides.

Hazardous Polymerization: Will not occur.

SECTION 11-TOXICOLOGICAL INFORMATION

Route of Exposure

Skin Absorption: May be harmful if absorbed.

Contact: May cause skin irritation. **Eye Contact:** May cause eye irritation.

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

Ingestion: May be harmful if swallowed.

SECTION 12-ECOLOGICAL INFORMATION

Data not available at this time.

SECTION 13-DISPOSAL CONSIDERATIONS

Appropriate Method of Disposal of Substance or Preparation: Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

SECTION 14-TRANSPORT INFORMATION

DOT

Proper Shipping Name: None Non-hazardous for air transport.

IMDG

Non-hazardous

IATA

Hazard Label: None

Non-hazardous for air transport.

SECTION 15-REGULATORY INFORMATION

OSHA Hazards: None known.
US Classification and Label Test

US Statements: Caution. Avoid contact and inhalation. Target Organ (s): Kidneys.

United States Regulatory Information:

Sara Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the

information required by the CPR.

DSL: Yes NDSL: No

EU Additional Classification

S: 23 24/25

Safety Statements: Do not breath vapor. Avoid contact with skin and eyes.

Massachusetts Right To Know Components

Not subject to the Massachusetts Right to Know Act

SECTION 16-OTHER INFORMATION

DISCLAIMER

For R & D use only. Not for drug, household or other uses.



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Revision Date: 10/09

ProtoScript®AMV LongAmp™ Taq RT-PCR Kit E5300

SECTION 1-CHEMICAL INFORMATION

Product Name: Random Primer Mix Sara 313: No Cas.# None

SECTION 2-COMPOSITION/INFORMATION ON INGREDIENT

Sequence: 5'd (NNNNNNNN) '3 (N=A, G, C,T)

SECTION 3-HAZARDOUS IDENTIFICATION

Emergency Overview: The hazards identified with this product are those associated with the following component: None **OHSA Hazards:** No known hazards.

HMIS Rating

Health: 1*
Flammability: 0
Reactivity: 1

NFPA Rating

Health: 1 Flammability: 0 Reactivity: 1

SECTION 4-FIRST AID MEASURES

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

Inhalation Exposure: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water.

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

SECTION 7-HANDLING AND STORAGE

Handling: Provide appropriate exhaust ventilation.

Storage: Keep tightly closed in a dry and well ventilated place. Store at -20°C.

SECTION 14-TRANSPORT INFORMATION

DOT

Proper Shipping Name: None Non-hazardous for air transport.

IMDG

Non-hazardous

IATA

Hazard Label: None

Non-hazardous for air transport.

^{*}Additional chronic hazards present.

SECTION 15-REGULATORY INFORMATION

OSHA Hazards: None known.
US Classification and Label Test

US Statements: Caution. Avoid contact and inhalation. Target Organ (s): Kidneys.

United States Regulatory Information:

Sara Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the

information required by the CPR.

DSL: Yes NDSL: No

EU Additional Classification

S: 23 24/25

Safety Statements: Do not breath vapor. Avoid contact with skin and eyes.

Massachusetts Right To Know Components

Not subject to the Massachusetts Right to Know Act

SECTION 16-OTHER INFORMATION

DISCLAIMER

For R & D use only. Not for drug, household or other uses.

Environmental Precautions: Do not let product enter drains.

Methods For Cleaning Up: Cover with dry lime, sand, or soda ash. Sweep up and shovel. Place in covered container for disposal.

SECTION 7-HANDLING AND STORAGE

Handling: Provide appropriate exhaust ventilation.

Storage: Keep tightly closed in a dry and well ventilated place. Store at -20°C.

SECTION 8-EXPOSURE CONTROLS/PPE

Engineering Controls: Safety shower and eye bath. Mechanical exhaust required.

Personal Protective Equipment: Gloves suitable to prevent exposure.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles. **Skin Specific:** Chemical resistant

General Hygiene Measures: Wash hands thoroughly after handling. Wash contaminated clothing before use.

Respiratory Protection: None required.

SECTION 9-PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear Liquid Color: Colorless

Property Value Temperature or Pressure

Boiling Point Range: 182°C Melting Point Range: 20°C

Flash Point: 320°F, 160°C Method: Closed cup

Auto Ignition Temp: 370°C Vapor Pressure: < 1 mmHg 20°C

Vapor Density: 3.1 g/l Specific Gravity: 1.262 Solubility in Water: Soluble

SECTION 10-STABILITY AND REACTIVITY

Stability: Stable under recommended storage conditions.

Materials to Avoid: Acid chlorides, Phosphorus halides, strong oxidizing agents, strong acids, strong reducing agents.

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Sulfur dioxides.

Hazardous Polymerization: Will not occur.

SECTION 11-TOXICOLOGICAL INFORMATION

Route of Exposure

Skin Absorption: May be harmful if absorbed.

Contact: May cause skin irritation. **Eye Contact:** May cause eye irritation.

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

Ingestion: May be harmful if swallowed.

SECTION 12–ECOLOGICAL INFORMATION

Appropriate Method of Disposal of Substance or Preparation: Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.

SECTION 14-TRANSPORT INFORMATION

DOT

Proper Shipping Name: None Non-hazardous for air transport.

IMDG

Non-hazardous

IATA

Hazard Label: None

Non-hazardous for air transport.

SECTION 15-REGULATORY INFORMATION

OSHA Hazards: None known.
US Classification and Label Test

US Statements: Caution. Avoid contact and inhalation. Target Organ (s): Kidneys.

United States Regulatory Information:

Sara Listed: No

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information required by the CPR.

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Safety Statements: Do not breath vapor. Avoid contact with skin and eyes.

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ProtoScript®AMV LongAmp™ *Taq* RT-PCR Kit E5300

SECTION 1-CHEMICAL INFORMATION

Product Name: Nuclease-free Water Sara 313: No Cas.# None

SECTION 2-COMPOSITION/INFORMATION ON INGREDIENT

Η,0

SECTION 3-HAZARDOUS IDENTIFICATION

Emergency Overview: The hazards identified with this product are those associated with the following component: None **OHSA Hazards:** No known hazards.

HMIS Rating

Health: 0*
Flammability: 0
Reactivity: 0
NFPA Rating

Health: 0

Flammability: 0 Reactivity: 0

*Additional chronic hazards present.

SECTION 4-FIRST AID MEASURES

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

Inhalation Exposure: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Dermal Exposure: In case of contact, immediately wash skin with soap and copious amounts of water.

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

SECTION 7-HANDLING AND STORAGE

Handling: Provide appropriate exhaust ventilation.

Storage: Keep tightly closed in a dry and well ventilated place. Store at -20°C.

SECTION 14-TRANSPORT INFORMATION

DOT

Proper Shipping Name: None Non-hazardous for air transport.

IMDG

Non-hazardous

IATA

Hazard Label: None

Non-hazardous for air transport.

SECTION 15-REGULATORY INFORMATION

OSHA Hazards: None known.
US Classification and Label Test

US Statements: Caution. Avoid contact and inhalation. Target Organ (s): Kidneys.

United States Regulatory Information:

Sara Listed: No

TSCA Inventory Item: Yes

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the

information required by the CPR.

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