

# MATERIAL SAFETY DATA SHEET

## dNTP's

Frontier Genomics Inc  
(888) 498-0188  
PO Box 211276  
Auke Bay, AK 99821  
INTERNET e-mail: info@frontiergenomics.com

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### SECTION 1 - PRODUCT

**Product Name:** Deoxynucleotide Solution Mix

### SECTION 2- CHEMICAL INFORMATION

1. 2' -deoxycytidine-5'	Triphosphate Cas.	None	SARA 313: NO
2. 2' -deoxythymidine-5'	Triphosphate Cas.	None	SARA 313: NO
3. 2' -deoxyadenosine-5'	Triphosphate Cas.	None	SARA 313: NO
4. 2' -deoxyguanosine-5'	Triphosphate Cas.	None	SARA 313: NO

### SECTION 3-HAZARDOUS IDENTIFICATION

HMIS Rating

Health: 0

Flammability: 0

Reactivity: 1

NFPA Rating

Health: 0

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:** If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

**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.

**Unusual Fire and Explosions Hazard (s):**

Carbon Dioxide, dry chemical powder or appropriate foam.

Emits toxic fumes under fire conditions.

**Special Firefighting Procedures:** Wear self contained breathing

**Flash point:** N/A

Apparatus and protective clothing to prevent contact with skin and eyes.

**Flammability:** N/A

**Auto ignition Temp:** N/A

## **SECTION 6 –ACCIDENTAL RELEASE MEASURES**

**METHODS FOR CLEANING UP:**

**PROCEDURE(S) OF PERSONAL PRECAUTION(S):**

Absorb on sand or vermiculite and place in closed containers for disposal.

Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of vapors.

Ventilate area and wash spill site after material pickup is complete.

## **SECTION 7– HANDLING AND STORAGE**

Flush spill area with copious amounts of water.

**Handling:**

**User Exposure: Avoid Inhalation.**

**Storage:** –° 20C

**Keep tightly closed.**

**Avoid contact with eyes, skin and clothing.**

**Avoid prolonged or repeated exposure.**

## **SECTION 8 – EXPOSURE CONTROLS/PPE**

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

**Personal Protective Equipment:**

**Respiratory**

**General Hygiene Measures:**

**Hand:**

Compatible chemical-resistant gloves.

Wash hands thoroughly after handling.

**Eye:**

Wash contaminated clothing before use.

Chemical safety goggles.

## **SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES**

**Physical State:** Liquid

**Appearance:**

**Property Value**

N/A = not available

**Molecular Weight:** NA

**pH:** NA

**BP/BP Range:** NA

**MP/MP Range:** NA  
**Freezing Point:** NA  
**Vapor Pressure:** NA  
**Vapor Density:** NA  
**Saturated Vapor:** NA  
**SG/Density:** NA  
**Bulk Density:** NA  
**Odor Threshold:** NA  
**Volatile %:** NA  
**Voc Content:** NA  
**Water Content:** NA  
**Solvent Content:** NA  
**Evaporation Rate:** NA  
**Viscosity:** NA  
**Surface Tension:** NA  
**Partition Coefficient:** NA  
**Decomposition Temp:** NA  
**Flash Point:** NA  
**Explosion Limits:** NA  
**Flammability:** NA  
**Autoignition Temp:** NA  
**Refraction Index:** NA  
**Optical Rotation:** NA  
**Miscellaneous Data:** NA  
**Solubility in Water:** NA

## **SECTION 11- TOXICOLOGICAL INFORMATION**

### **SECTION 10 - STABILITY AND REACTIVITY**

**Stability:** Stable

**Hazardous Polymerization:** Will not occur

**Materials to avoid:** Strong oxidizing agents

**Hazardous Decomposition Products:**

Hazardous decomposition products: Carbon monoxide, Carbon dioxide, Nitrogen oxides

**Route of Exposure:**

**Skin Absorption:** May be harmful if absorbed through the skin.

**Skin 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.

**Sign and Symptoms of Exposure:**

To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

## **SECTION 12- ECOLOGICAL INFORMATION**

Data Not yet Available

## **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 the material 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

### **IATA**

Non-Hazardous for Transport: Non-hazardous for air transport.

## **SECTION 15- REGULATORY INFORMATION**

### **Canada Regulatory Information**

### **United States Regulatory Information:**

This product has been classification in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR

WHMIS Classification:

**Sara Listed:** No

**DSL:** No

**NDSL:** No

## **SECTION 16–REGULATORY INFORMATION**

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

**WARRANTY:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Frontier Genomics Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

## **SECTION 17– OTHER INFORMATION**

**Frontier Genomics shall not be held liable for any damage resulting from handling or from contact with the above product. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.**