

# Material Safety Data Sheet

## Ultrapure dNTP Set Containing dATP, dCTP, dGTP, and dTTP.

ACC# 91479

### Section 1 - Chemical Product and Company Identification

**MSDS Name:** Ultrapure dNTP Set Containing dATP, dCTP, dGTP, and dTTP.

**Catalog Numbers:** BP2564-1, BP2564-4, BP25641, BP25644

**Synonyms:** None.

**Company Identification:**

Fisher Scientific  
1 Reagent Lane  
Fair Lawn, NJ 07410

**For information, call:** 201-796-7100

**Emergency Number:** 201-796-7100

**For CHEMTREC assistance, call:** 800-424-9300

**For International CHEMTREC assistance, call:** 703-527-3887

### Section 2 - Composition, Information on Ingredients

| CAS#        | Chemical Name                     | Percent | EINECS/ELINCS |
|-------------|-----------------------------------|---------|---------------|
| 1927-31-7   | 2'-Deoxyadenosine 5'-triphosphate | 1-100   | 217-662-3     |
| 18423-43-3  | 2'-Deoxythymidine-5'-Triphosphate | 1-100   | unlisted      |
| 93919-41-6  | 2'-Deoxyguanosine-5'-Triphosphate | 1-100   | 300-026-5     |
| 102783-51-7 | 2'-Deoxycytidine-5'-Triphosphate  | 1-100   | unlisted      |

### Section 3 - Hazards Identification

#### EMERGENCY OVERVIEW

Appearance: colorless liquid.

**Caution!** May cause eye and skin irritation. May cause respiratory and digestive tract irritation. Good laboratory procedures are recommended when handling this compound. This is expected to be a low hazard for usual industrial handling.

**Target Organs:** No data found.

#### Potential Health Effects

**Eye:** May cause eye irritation.

**Skin:** May cause skin irritation.

**Ingestion:** May cause irritation of the digestive tract. Low hazard for usual industrial handling. The toxicological properties of this substance have not been fully investigated.

**Inhalation:** May cause respiratory tract irritation. Low hazard for usual industrial handling. The toxicological properties of this substance have not been fully investigated.

**Chronic:** No information found.

### Section 4 - First Aid Measures

**Eyes:** Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. If irritation develops, get medical aid.

**Skin:** Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists. Wash clothing before reuse.

**Ingestion:** Never give anything by mouth to an unconscious person. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water. Get medical aid if irritation or symptoms occur.

**Inhalation:** Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.

**Notes to Physician:** Treat symptomatically and supportively.

### Section 5 - Fire Fighting Measures

**General Information:** Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas.

**Extinguishing Media:** Use agent most appropriate to extinguish fire. Cool containers with flooding quantities of water until well after fire is out. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Flash Point:** Not applicable.

**Autoignition Temperature:** Not applicable.

**Explosion Limits, Lower:** Not available.

**Upper:** Not available.

**NFPA Rating:** (estimated) Health: 1; Flammability: 0; Instability: 0

## Section 6 - Accidental Release Measures

**General Information:** Use proper personal protective equipment as indicated in Section 8.

**Spills/Leaks:** Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

## Section 7 - Handling and Storage

**Handling:** Wash thoroughly after handling. Wash hands before eating. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation.

**Storage:** Store in a cool, dry, well-ventilated area away from incompatible substances. Deep freeze (below -20°C).

## Section 8 - Exposure Controls, Personal Protection

**Engineering Controls:** Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

### Exposure Limits

| Chemical Name                     | ACGIH       | NIOSH       | OSHA - Final PELs |
|-----------------------------------|-------------|-------------|-------------------|
| 2'-Deoxyadenosine 5'-triphosphate | none listed | none listed | none listed       |
| 2'-Deoxythymidine-5'-Triphosphate | none listed | none listed | none listed       |
| 2'-Deoxyguanosine-5'-Triphosphate | none listed | none listed | none listed       |
| 2'-Deoxycytidine-5'-Triphosphate  | none listed | none listed | none listed       |

**OSHA Vacated PELs:** 2'-Deoxyadenosine 5'-triphosphate: No OSHA Vacated PELs are listed for this chemical. 2'-Deoxythymidine-5'-Triphosphate: No OSHA Vacated PELs are listed for this chemical. 2'-Deoxyguanosine-5'-Triphosphate: No OSHA Vacated PELs are listed for this chemical. 2'-Deoxycytidine-5'-Triphosphate: No OSHA Vacated PELs are listed for this chemical.

### Personal Protective Equipment

**Eyes:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin:** Glove protection is not normally required.

**Clothing:** Protective garments not normally required.

**Respirators:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

## Section 9 - Physical and Chemical Properties

**Physical State:** Liquid

**Appearance:** colorless

**Odor:** none reported

**pH:** 7.5

**Vapor Pressure:** Not available.

**Vapor Density:** >1.0

**Evaporation Rate:** Not available.

**Viscosity:** Not available.

**Boiling Point:** > 100 deg C

**Freezing/Melting Point:** > 0 deg C

**Decomposition Temperature:** Not available.

**Solubility:** Soluble.

**Specific Gravity/Density:** >1.000

**Molecular Formula:** Solution

**Molecular Weight:** Not available.

## Section 10 - Stability and Reactivity

**Chemical Stability:** Stable at room temperature in closed containers under normal storage and handling conditions.

**Conditions to Avoid:** Incompatible materials, excess heat.

**Incompatibilities with Other Materials:** None reported.

**Hazardous Decomposition Products:** Nitrogen oxides, carbon monoxide, oxides of phosphorus, irritating and toxic fumes and gases, carbon dioxide.

**Hazardous Polymerization:** Will not occur.

## Section 11 - Toxicological Information

### RTECS#:

**CAS#** 1927-31-7: AU7358800

**CAS#** 18423-43-3 unlisted.

**CAS#** 93919-41-6 unlisted.

**CAS#** 102783-51-7 unlisted.

### LD50/LC50:

Not available.  
Not available.  
Not available.  
Not available.

**Carcinogenicity:**

CAS# 1927-31-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.  
CAS# 18423-43-3: Not listed by ACGIH, IARC, NTP, or CA Prop 65.  
CAS# 93919-41-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65.  
CAS# 102783-51-7: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

**Epidemiology:** No information found

**Teratogenicity:** No information found

**Reproductive Effects:** No information found

**Mutagenicity:** No information found

**Neurotoxicity:** No information found

**Other Studies:**

## Section 12 - Ecological Information

No information available.

## Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.

**RCRA U-Series:** None listed.

## Section 14 - Transport Information

|                       | US DOT   | Canada TDG           |
|-----------------------|--|----------------------|
| <b>Shipping Name:</b> | CARBON DIOXIDE, SOLID USED FOR DIAGNOSTIC OR TREATMENT PURPOSE | CARBON DIOXIDE SOLID |
| <b>Hazard Class:</b>  | 9  | 9                    |
| <b>UN Number:</b>     |  | UN1845               |
| <b>Packing Group:</b> | III  | III                  |

## Section 15 - Regulatory Information

### US FEDERAL

**TSCA**

CAS# 1927-31-7 is not listed on the TSCA inventory. It is for research and development use only.  
CAS# 18423-43-3 is not listed on the TSCA inventory. It is for research and development use only.  
CAS# 93919-41-6 is not listed on the TSCA inventory. It is for research and development use only.  
CAS# 102783-51-7 is not listed on the TSCA inventory. It is for research and development use only.

**Health & Safety Reporting List**

None of the chemicals are on the Health & Safety Reporting List.

**Chemical Test Rules**

None of the chemicals in this product are under a Chemical Test Rule.

**Section 12b**

None of the chemicals are listed under TSCA Section 12b.

**TSCA Significant New Use Rule**

None of the chemicals in this material have a SNUR under TSCA.

**CERCLA Hazardous Substances and corresponding RQs**

None of the chemicals in this material have an RQ.

**SARA Section 302 Extremely Hazardous Substances**

None of the chemicals in this product have a TPQ.

**Section 313** No chemicals are reportable under Section 313.

**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depleters.

This material does not contain any Class 2 Ozone depleters.

**Clean Water Act:**

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

**OSHA:**

None of the chemicals in this product are considered highly hazardous by OSHA.

**STATE**

CAS# 1927-31-7 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 18423-43-3 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 93919-41-6 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

CAS# 102783-51-7 is not present on state lists from CA, PA, MN, MA, FL, or NJ.

## California Prop 65

California No Significant Risk Level: None of the chemicals in this product are listed.

## European/International Regulations

### European Labeling in Accordance with EC Directives

#### Hazard Symbols:

Not available.

#### Risk Phrases:

#### Safety Phrases:

S 37 Wear suitable gloves.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 28A After contact with skin, wash immediately with plenty of water

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#### WGK (Water Danger/Protection)

CAS# 1927-31-7: No information available.

CAS# 18423-43-3: No information available.

CAS# 93919-41-6: No information available.

CAS# 102783-51-7: No information available.

#### Canada - DSL/NDSL

None of the chemicals in this product are listed on the DSL or NDSL list.

#### Canada - WHMIS

not available.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

#### Canadian Ingredient Disclosure List

## Section 16 - Additional Information

**MSDS Creation Date:** 4/03/2000

**Revision #4 Date:** 3/04/2004

*The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.*