

## ddNTP bundle

**Cat#: orb65051 (MSDS)**

### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Name: ddNTP Bundle

### 2. HAZARDS IDENTIFICATION

This substance is not classified as dangerous according to Regulation (EC) No. 1272/2008 (EU-GHS/CLP).

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms:

Formula:

ddATP: C<sub>10</sub>H<sub>16</sub>N<sub>5</sub>O<sub>11</sub>P<sub>3</sub> (free acid)

ddCTP: C<sub>9</sub>H<sub>16</sub>N<sub>3</sub>O<sub>12</sub>P<sub>3</sub> (free acid)

ddGTP: C<sub>10</sub>H<sub>16</sub>N<sub>5</sub>O<sub>12</sub>P<sub>3</sub> (free acid)

ddTTP: C<sub>10</sub>H<sub>17</sub>N<sub>2</sub>O<sub>13</sub>P<sub>3</sub> (free acid)

Molecular Weight:

ddATP: 475.18 g/mol (free acid)

ddCTP: 451.16 g/mol (free acid)

ddGTP: 491.18 g/mol (free acid)

ddTTP: 466.17 g/mol (free acid)

Concentration: 10 mM - 11 mM

### 4. FIRST AID MEASURES

If inhaled

If breathed in, move person into fresh air. If not breathing give artificial respiration.

In case of skin contact

Wash off with soap and plenty of water.

In case of eye contact

Flush eyes with water as a precaution.

If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water.

### 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

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

Special protective equipment for fire-fighters  
Wear self-contained breathing apparatus for firefighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Avoid dust formation.

Environmental precautions

Do not let product enter drains.

Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

Handling

Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection.

Storage

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature: store at -20 °C

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal protective equipment

### **Respiratory protection**

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### **Hand protection**

For prolonged or repeated contact use protective gloves.

### **Eye protection**

Safety glasses

### **Hygiene measures**

General industrial hygiene practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form: clear aqueous solution

Safety data

pH: 7.5 ±0.5

Melting point: no data available

Boiling point: no data available

Flash point: no data available  
Ignition temperature: no data available  
Lower explosion limit: no data available  
Upper explosion limit: no data available  
Water solubility: no data available

## 10. STABILITY AND REACTIVITY

Storage stability

Stable under recommended storage conditions.

Materials to avoid

Strong oxidizing agents.

Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NO<sub>x</sub>), Oxides of phosphorus, Lithium oxides.

## 11. TOXICOLOGICAL INFORMATION

Acute toxicity

no data available

Irritation and corrosion

no data available

Sensitisation

no data available

Chronic exposure

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Signs and Symptoms of Exposure

Dermatitis Potential Health Effects

Inhalation: May be harmful if inhaled. May cause respiratory tract irritation.

Skin: May be harmful if absorbed through skin. May cause skin irritation.

Eyes: May cause eye irritation.

Ingestion: May be harmful if swallowed.

Target Organs: Liver, Kidney

## 12. ECOLOGICAL INFORMATION

Elimination information (persistence and degradability)

no data available

Ecotoxicity effects

no data available

Further information on ecology

no data available

### 13. DISPOSAL CONSIDERATIONS

#### Product

Observe all federal, state, and local environmental regulations.

Contaminated packaging

Dispose of as unused product.

### 14. TRANSPORT INFORMATION

#### ADR/RID

Not dangerous goods

#### IMDG

Not dangerous goods

#### IATA

Not dangerous goods

### 15. REGULATORY INFORMATION

Labelling according to EC Directives

The product does not need to be labelled in accordance with EC directives or respective national laws.