SAFETY DATA SHEET
Date Issued: December 4, 2014

1. PRODUCT AND COMPANY IDENTIFICATION
   Product Name: dNTP Mix, 25 mM each
   Catalog Number: 40053
   Unit Size: 1 mL
   Manufacturer/Supplier: Biotium, Inc.
   46117 Landing Parkway, Fremont, CA 94538, USA
   Phone: 1-510-265-1027, Fax: 1-510-265-1352
   Web: http://www.biotium.com

2. HAZARDS IDENTIFICATION
   Classification according to Regulation (EC) No 1272/2008[CLP]
   None
   Classification according to Directive 1999/45/EC
   None

   Labelling according to Regulation (EC) No 1272/2008[CLP]
   Hazard pictogram None
   Signal word None
   Hazard statements None
   Precautionary statements None

   HMIS Classification
   Health hazard: 0
   Flammability: 0
   Physical hazards: 0

   NFPA Rating
   Health hazard: 0
   Fire: 0
   Reactivity Hazard: 0

3. COMPOSITION/INFORMATION ON INGREDIENTS
   This product contains no substances which at their given concentrations, are considered to be hazardous to health. We recommend handling all chemicals with caution.

4. FIRST-AID MEASURES
   General advice
   Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.
   If inhaled
   If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
   In case of skin contact
   Wash off with soap and plenty of water. Consult a physician.
   In case of eye contact
   Flush eyes with water as a precaution.
   If swallowed
   Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

5. FIREFIGHTING MEASURES
Suitable extinguishing media
Carbon dioxide, dry chemical extinguishers, foam extinguishers or water.
**Special protective equipment for firefighters**
Wear self contained breathing apparatus for firefighting if necessary.

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Avoid breathing vapors, mist or gas. Remove all sources of ignition.

**Environmental precautions**
Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**
Contain spillage. Soak up spilled substance with inert absorbent material. Keep in suitable, closed containers for disposal.

### 7. HANDLING AND STORAGE

**Precautions for safe handling**
Avoid inhalation of vapor or mist.
Avoid direct contact with substance.

**Conditions for safe storage**
Keep container tightly closed in a dry and well-ventilated place.
Store at -20°C.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Components with workplace control parameters**

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>country</td>
<td>Austria</td>
</tr>
<tr>
<td>limit, 8 hours</td>
<td></td>
</tr>
<tr>
<td>limit, short term</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>country</th>
<th>Hungary</th>
<th>Italy</th>
<th>Poland</th>
<th>Spain</th>
<th>Sweden</th>
<th>Netherlands</th>
<th>Switzerland</th>
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<tbody>
<tr>
<td>limit, 8 hours</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>limit, short term</td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>country</th>
<th>United Kingdom</th>
<th>USA- NIOSH</th>
<th>USA- OSHA</th>
<th>Australia</th>
<th>Canada</th>
<th>Japan</th>
<th>South Korea</th>
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</thead>
<tbody>
<tr>
<td>limit, 8 hours</td>
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</tbody>
</table>

**Personal protective equipment**

**Hand protection**
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove’s outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Respiratory protection
Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Eye protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>dNTP Mix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear solution</td>
</tr>
<tr>
<td>Odor</td>
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</tr>
<tr>
<td>Odor threshold</td>
<td>No data</td>
</tr>
<tr>
<td>pH</td>
<td>7.5</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>No data</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data</td>
</tr>
<tr>
<td>Evaporate rate</td>
<td>No data</td>
</tr>
<tr>
<td>Flammability</td>
<td>No data</td>
</tr>
<tr>
<td>Explosive limits</td>
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</tr>
<tr>
<td>Vapor pressure</td>
<td>No data</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data</td>
</tr>
<tr>
<td>Solubility</td>
<td>No data</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data</td>
</tr>
<tr>
<td>Viscosity</td>
<td>No data</td>
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<tr>
<td>Explosive properties</td>
<td>No data</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data</td>
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</table>

10. STABILITY AND REACTIVITY

Chemical stability
Stable under recommended storage conditions.

Possibility of hazardous reactions
No data available

Conditions to avoid
Heat, flames and sparks.

Materials to avoid
No data available

Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides
Other decomposition products - no data available

11. TOXICOLOGICAL INFORMATION

Acute toxicity

<table>
<thead>
<tr>
<th>Route</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD50</td>
<td>None</td>
</tr>
<tr>
<td>Inhalation LC50</td>
<td>None</td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>None</td>
</tr>
</tbody>
</table>
Other information on acute toxicity

- **Skin corrosion/irritation**: No data available
- **Serious eye damage/eye irritation**: No data available
- **Respiratory or skin sensitization**: No data available
- **Germ cell mutagenicity**: No data available

**Carcinogenicity**
- 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.
- ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
- OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

**Reproductive toxicity**: No data available

**Specific target organ toxicity** - single exposure (Globally Harmonized System)
No data available

**Specific target organ toxicity** - repeated exposure (Globally Harmonized System)
No data available

**Aspiration hazard**: No data available

**Potential health effects**
- **Inhalation**: May be harmful if inhaled. May cause respiratory tract irritation.
- **Ingestion**: May be harmful if swallowed.
- **Skin**: May be harmful if absorbed through skin. May cause skin irritation.
- **Eyes**: May cause eye irritation.

**Additional Information**
- RTECS: None

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**12. ECOLOGICAL INFORMATION**

- **Toxicity**: No information available
- **Persistence and degradability**: No information available
- **Biodegradation**: No information available
- **Mobility in soil**: No information available
- **Results of PBT and vPvB assessment**: No information available
- **Other adverse effects**: No information available
- **Additional information**: No information available

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**13. DISPOSAL CONSIDERATIONS**

Do not dispose product directly into sewage. Consult local state or national regulation for proper disposal.

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**14. TRANSPORT INFORMATION**

- **IATA, IMDG, DOT (US)**: Not dangerous good during transportation
- **UN number**: None
- **UN proper shipping name**: None
- **Transport hazard class**: None
- **Packing group**: None
- **Environmental hazards**: None
15. REGULATION INFORMATION

US Federal Regulations
US Toxic Substances Control Act (TSCA): Not listed
SARA 302: No chemicals were found.
SARA 313: No chemicals were found.
SARA 311/312 Hazards: No chemicals were found.

16. OTHER INFORMATION

Classification according to Regulation (EC) Nr. 1272/2008
Refer to section 2 and section 3

Prepared by: Regulatory Department
Biotium Inc.

Version no. 1

The information provided above is believed to be correct to our best knowledge, but does not purport to be all inclusive, and shall be used only as a guide. This material is sold for research purposes only and is not required to appear on the TSCA inventory. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals. Biotium shall not be held liable for any damage resulting from handling or contact with the above product.