1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product name | phi29 DNA Polymerase Reaction Buffer
Product No | B0269

**Recommended use of the chemical and restrictions on use**

| Recommended use | This product is for research and development only
| Uses advised against | No information available

**Details of the supplier of the safety data sheet**

| Supplier Address | New England BioLabs
| | 240 County Road
| | Ipswich, MA 01938
| | USA

| Company Phone Number | 978-927-5054
| | 800-632-5227 (toll free)
| Telefax | 978-921-1350
| E-mail address | info@neb.com

**Emergency telephone number**

| Emergency telephone | 978-927-5054
| | 800-632-5227 (toll free)
| | 9:00am - 5:00pm Monday-Friday EST

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**Product name** | phi29 DNA Polymerase Reaction Buffer
**Page** | 1 / 8
**Product No** | B0269

**Specification No** | No information available
2. HAZARDS IDENTIFICATION

Emergency Overview
The product contains no substances which at their given concentration, are considered to be hazardous to health. For a list of product substances, refer to the specification document found at www.neb.com.

| Appearance | Colorless | Physical state | Liquid | Odor | Mild |

Principle Routes of Exposure

Acute toxicity

Inhalation
May cause drowsiness or dizziness. Ingestion causes burns of the upper digestive and respiratory tracts. Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting.

Eyes
Redness. May cause slight irritation.

Skin
Prolonged contact may cause redness and irritation. Repeated exposure may cause skin dryness or cracking.

Ingestion
May cause drowsiness or dizziness. Ingestion causes burns of the upper digestive and respiratory tracts. Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting.

Chronic Effects

Chronic toxicity
No information available.

Symptoms
No information available.

Aggravated Medical Conditions
None known.

Interactions with Other Chemicals
No information available.

Environmental hazard
See Section 12: ECOLOGICAL INFORMATION

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product contains no substances which at their given concentration, are considered to be hazardous to health.

4. FIRST AID MEASURES

General advice
Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove from exposure, lie down. Do not breathe dust/fume/gas/mist/vapors/spray.

Eye contact
Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact
Wash skin with soap and water.

Inhalation
Remove to fresh air.

Ingestion
Clean mouth with water and drink afterwards plenty of water.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Product name phi29 DNA Polymerase Reaction Buffer

Specification No No information available
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**
CAUTION: Use of water spray when fighting fire may be inefficient.

**Specific hazards arising from the chemical**
No information available

**Protective equipment and precautions for firefighters**
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

<table>
<thead>
<tr>
<th>NFPA</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Stability</th>
<th>Special Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>HMIS</th>
<th>Health hazards</th>
<th>Flammability</th>
<th>Physical hazards</th>
<th>Personal protection</th>
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<tbody>
<tr>
<td></td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Ensure adequate ventilation, especially in confined areas.

**Personal protective equipment [PPE]**
Use personal protection recommended in Section 8.

**Environmental precautions**
See Section 12 for additional Ecological Information.

**Methods for containment**
Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up**
Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. This material and its container must be disposed of as hazardous waste.

### 7. HANDLING AND STORAGE

**Advice on safe handling**
Handle in accordance with good industrial hygiene and safety practice.

**Storage temperature**
Refer to www.neb.com for specific information.

**Storage Conditions**
Keep/store only in original container.

**Incompatible materials**
None known based on information supplied.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls
Showers. Eyewash stations.

Personal protective equipment (PPE)
Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin and body protection
Wear suitable protective clothing and gloves.

Respiratory protection
Use in well ventilated areas.

General hygiene considerations
Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>pH</td>
<td>Refer to <a href="http://www.neb.com">www.neb.com</a> for specific information</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No information available</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No information available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No information available</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
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</tr>
<tr>
<td>Flammability Limit in Air</td>
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</tr>
<tr>
<td>Upper flammability limit</td>
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</tr>
<tr>
<td>Lower flammability limit</td>
<td>No information available</td>
</tr>
<tr>
<td>Vapor pressure</td>
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</tr>
<tr>
<td>Vapor density</td>
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</tr>
<tr>
<td>Relative density</td>
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</tr>
<tr>
<td>Specific gravity</td>
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<tr>
<td>Water solubility</td>
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<tr>
<td>Solubility in other solvents</td>
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</tr>
<tr>
<td>Partition coefficient</td>
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</tr>
<tr>
<td>Autoignition temperature</td>
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</tr>
<tr>
<td>Decomposition temperature</td>
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</tr>
<tr>
<td>Kinematic viscosity</td>
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</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No information available</td>
</tr>
<tr>
<td>Explosive properties</td>
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<tr>
<td>Oxidizing properties</td>
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<tr>
<td>Softening point</td>
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</tr>
<tr>
<td>Molecular weight</td>
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</tr>
<tr>
<td>VOC content (%)</td>
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<tr>
<td>Density</td>
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</tr>
<tr>
<td>Bulk density</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Other information

Product name  phi29 DNA  
Polymerase Reaction Buffer

Product No  B0269
10. STABILITY AND REACTIVITY

Reactivity
No data available.

Stability
Stable under normal conditions.

Possibility of hazardous reactions
Can react briskly with oxidizers - danger of explosion.

Conditions to avoid
Incompatible materials, Ignition sources, Heat.

Incompatible materials
Strong oxidizing agents.

Hazardous decomposition products
Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide (CO2).

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product information
Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation
Avoid breathing vapors or mists. May cause irritation of respiratory tract.

Eye contact
Redness. May cause slight irritation.

Skin contact
Prolonged contact may cause redness and irritation. Repeated exposure may cause skin dryness or cracking.

Ingestion
May cause drowsiness or dizziness. Ingestion causes burns of the upper digestive and respiratory tracts. Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting.

Chronic toxicity

Skin corrosion/irritation Mild
Serious eye damage/eye irritation Mild
Irritation Mild
Corrosivity Mild
Sensitization Skin No information available
Respiratory No information available
Germ cell mutagenicity No information available
Carcinogenicity No information available

Reproductive toxicity No information available
Developmental toxicity No information available
Teratogenicity No information available
STOT - single exposure No information available

Product name phi29 DNA Polymerase Reaction Buffer
Product No B0269
Specification No No information available
12. ECOLOGICAL INFORMATION

Marine pollutant
No information available

Ecotoxicity
No information available

Persistence and degradability
No information available

Bioaccumulation
No information available

Mobility
No information available

Other adverse effects
No information available

Ozone depletion potential (ODP)
No information available

13. DISPOSAL CONSIDERATIONS

Relevant Information
Keep out of drains, sewers, ditches and waterways.

Disposal considerations
Use a licensed professional waste disposal service to dispose of this product. Product may be dissolved in a combustible solvent or absorbed onto a combustible material and burned by a chemical incinerator.

Contaminated packaging
Empty containers must be tripled rinsed prior to disposal.

14. TRANSPORT INFORMATION

DOT Not regulated
TDG Not regulated
MEX Not regulated
ICAO (air) Not regulated
IATA Not regulated
IMDG Not regulated
RID Not regulated

Product name phi29 DNA Polymerase Reaction Buffer
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Product No B0269
Specification No No information available
### 15. REGULATORY INFORMATION

#### International Inventories

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Complies</th>
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<tbody>
<tr>
<td>TSCA</td>
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</tr>
<tr>
<td>DSL</td>
<td></td>
</tr>
<tr>
<td>NDSL</td>
<td></td>
</tr>
</tbody>
</table>

**Legend**

- **TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
- **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

#### US Federal Regulations

**SARA 313**
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

**SARA 311/312 Hazard Categories**

<table>
<thead>
<tr>
<th>Hazard Category</th>
<th>No</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute health hazard</td>
<td></td>
</tr>
<tr>
<td>Chronic Health Hazard</td>
<td></td>
</tr>
<tr>
<td>Fire hazard</td>
<td></td>
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<tr>
<td>Sudden release of pressure hazard</td>
<td></td>
</tr>
<tr>
<td>Reactive hazard</td>
<td></td>
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</tbody>
</table>

**CWA (Clean Water Act)**
This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**
This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

#### International Regulations

**Canada**
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR

### 16. OTHER INFORMATION

**Prepared by**

<table>
<thead>
<tr>
<th>Role</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>EH&amp;S Manager</td>
<td>978-927-5054</td>
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<tr>
<td>New England BioLabs</td>
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**Issue date**

No data available

**Revision note**

SDS is valid 3 years from revision date. Contact info@neb.com for latest revision

**Disclaimer**

No information available
IMPORTANT: The information in this SDS is provided in good faith based on our knowledge as of the issue date (or subsequent revision date, if any), and is to be used only as a guide. This SDS does not constitute a guarantee (express or implied) of any kind and we make no warranties or merchantability or fitness for a particular purpose. This information relates only to the designated product as shipped and may not be valid if the product is used in combination with any other materials or is not used in accordance with our instructions. It is the responsibility of the buyer/user to ensure that its activities comply with all applicable governmental requirements. Since conditions of use of the product are not under the control of New England Biolabs, it is the duty of the buyer/user to determine the necessary conditions for the safe use of the product. New England Biolabs will not be liable for any damages resulting from handling or contact with the product.

End of Safety Data Sheet