Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: phi29 DNA Polymerase
Product No: M0269

1.2. Relevant identified uses of the substance or mixture and uses advised against

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

1.3. 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

For further information, please contact:
E-mail address: info@neb.com

1.4. Emergency telephone number

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

Emergency telephone - §45 - (EC)1272/2008
Europe: 112
Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture
Regulation (EC) No 1272/2008
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements
Product identifier
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]
Signal word
None
EUH210 - Safety data sheet available on request

2.3. Other hazards

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Not applicable

3.2 Mixtures
Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of 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.

4.2. Most important symptoms and effects, both acute and delayed
No information available

4.3. Indication of any immediate medical attention and special treatment needed
Note to physicians
Treat symptomatically.
Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media
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.

5.2. Special hazards arising from the substance or mixture
No information available

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

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Ensure adequate ventilation, especially in confined areas.

For emergency responders
Use personal protection recommended in Section 8.

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

6.3. Methods and material for containment and cleaning up

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.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling
Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

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.

7.3. Specific end use(s)

Risk management methods [RMM]
The information required is contained in this Safety Data Sheet.

Product name phi29 DNA Polymerase
Product No M0269
Specification No No information available
Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Derived No Effect Level (DNEL)
No information available

Predicted No Effect Concentration (PNEC)
No information available

8.2. Exposure controls

Engineering controls
Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

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.

Environmental exposure controls
See Section 12: ECOLOGICAL INFORMATION.

Section 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>
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<tr>
<td>Flammability (solid, gas)</td>
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<tr>
<td>Flammability Limit in Air</td>
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<tr>
<td>Upper flammability limit</td>
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<tr>
<td>Lower flammability limit</td>
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<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>
<td>No information available</td>
</tr>
<tr>
<td>Specific gravity</td>
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</tr>
<tr>
<td>Water solubility</td>
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</tr>
<tr>
<td>Solubility in other solvents</td>
<td>No information available</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No information available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No information available</td>
</tr>
</tbody>
</table>

Product name: phi29 DNA Polymerase

Specification No: No information available
Section 10: STABILITY AND REACTIVITY

10.1. Reactivity
No data available.

10.2. Chemical stability
Stable under normal conditions.

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

10.4. Conditions to avoid

10.5. Incompatible materials
Strong oxidizing agents.

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

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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 may cause gastrointestinal irritation, nausea, vomiting and diarrhea
Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting

Unknown acute toxicity
50.17302 % of the mixture consists of ingredient(s) of unknown toxicity

Decomposition temperature
No information available
Kinematic viscosity
No information available
Dynamic viscosity
No information available
 Explosive properties
No information available
Oxidizing properties
No information available

Other information
Softening point
No information available
Molecular weight
No information available
VOC content (%)
No information available
Density
No information available
Bulk density
No information available

Product name
phi29 DNA Polymerase

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Product No
M0269

Specification No
No information available
The following values are calculated based on chapter 3.1 of the GHS document

**ATEmix (oral)** 25,200.00 mg/kg
**ATEmix (dermal)** 20,000.00 mg/kg
**ATEmix (inhalation-vapor)** 1,140.00 mg/l

Skin corrosion/irritation Mild
Serious eye damage/eye irritation Mild
Sensitization Not applicable
Germ cell mutagenicity Not applicable
Carcinogenicity No information available
Reproductive toxicity No information available
Developmental toxicity No information available
Teratogenicity No information available
STOT - single exposure No information available
STOT - repeated exposure No information available
Neurological effects No information available
Target organ effects Eyes, Kidneys, Respiratory system, Skin.
Other adverse effects No information available
Symptoms No information available
Aspiration hazard No information available

### Section 12: ECOLOGICAL INFORMATION

**12.1. Toxicity**

1.17302 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**12.2. Persistence and degradability**
No information available

**12.3. Bioaccumulative potential**
No information available

**12.4. Mobility in soil**
No information available

**12.5. Results of PBT and vPvB assessment**
No information available

**12.6. Other adverse effects**

Other adverse effects No information available

Endocrine disruptor information No information available

Ozone No information available

**Product name** phi29 DNA Polymerase

**Page** 6 / **Product No** M0269

**Specification No** No information available
Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

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

Waste from Residues/Unused Products
Disposal should be in accordance with applicable regional, national and local laws and regulations. Send to a licensed recycler, reclaimer or incinerator.

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

Section 14: TRANSPORT INFORMATION

IMDG
14.1 UN/ID No Not regulated
14.2 Proper shipping name Not regulated
14.3 Hazard class Not regulated
14.4 Packing group Not regulated
14.5 Marine pollutant Not applicable
14.6 Special Provisions None
14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

RID
14.1 UN/ID No Not regulated
14.2 Proper shipping name Not regulated
14.3 Hazard class Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazard Not applicable
14.6 Special Provisions None

ADR
14.1 UN/ID No Not regulated
14.2 Proper shipping name Not regulated
14.3 Hazard class Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazard Not applicable
14.6 Special Provisions None

ICAO (air)
14.1 UN/ID No Not regulated
14.2 Proper shipping name Not regulated
14.3 Hazard class Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazard Not applicable
14.6 Special Provisions None

IATA
14.1 UN/ID No Not regulated
14.2 Proper shipping name Not regulated
14.3 Hazard class Not regulated
14.4 Packing group Not regulated
14.5 Environmental hazard Not applicable
14.6 Special Provisions None

Product name phi29 DNA Polymerase
Specification No No information available
Section 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National Regulations

Occupational Illnesses (R-463-3, France)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

All of the components in the product are on the following Inventory lists TSCA (United States); Canada (DSL/NDSL), Australia (AICS), China (IECSC), Philippines (PICCS).

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Complies</th>
</tr>
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<tbody>
<tr>
<td>TSCA</td>
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<tr>
<td>EINECS</td>
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<tr>
<td>ELINCS</td>
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<tr>
<td>AICS</td>
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</tr>
<tr>
<td>KECL</td>
<td></td>
</tr>
</tbody>
</table>

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
AICS - Australian Inventory of Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical safety assessment

No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Prepared by EH&S Manager
978-927-5054
Prepared by New England BioLabs
Issue date No data available
Revision note SDS is valid 3 years from revision date. Contact info@neb.com for latest revision.

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006

Disclaimer

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

Product name phi29 DNA Polymerase
Specification No No information available
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

Product name  phi29 DNA Polymerase

Specification No  No information available

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