

MATERIAL SAFETY DATA SHEET

Page 1 of 7
 Revised 2/02/04
 Replaces 11/17/03
 Printed 2/02/04

50 BP DNA LADDER
 INVITROGEN CORPORATION
 MSDS ID: 10416

1. PRODUCT AND COMPANY INFORMATION

INVITROGEN CORPORATION
 1600 FARADAY AVE.
 CARLSBAD, CA 92008
 760/603-7200

GIBCO PRODUCTS
 INVITROGEN CORPORATION
 3175 STALEY ROAD P.O. BOX 68
 GRAND ISLAND, NY 14072
 716/774-6700

INVITROGEN CORPORATION
 3 FOUNTAIN DR.
 INCHINNAN BUSINESS PARK
 PAISLEY, PA4 9RF
 SCOTLAND
 44-141 814-6100

INVITROGEN CORPORATION
 P.O. BOX 12-502
 PENROSE
 AUCKLAND 1135
 NEW ZEALAND
 64-9-579-3024

INVITROGEN CORPORATION
 2270 INDUSTRIAL ST.
 BURLINGTON, ONT
 CANADA L7P 1A1
 905/335-2255

INVITROGEN AUSTRALIA PTY LIMITED
 2A/14 LIONEL ROAD
 MOUNT WAVERLY VIC 3149
 AUSTRALIA
 1-800-331-627

EMERGENCY NUMBER (SPILLS, EXPOSURES): 301/431-8585 (24 HOUR)
 800/451-8346 (24 HOUR)
 NON-EMERGENCY INFORMATION: 800/955-6288

Product Name: 50 BP DNA LADDER
 Stock Number: 10416

NOTE: If this product is a kit or is supplied with more than one material,
 please refer to the MSDS for each component for hazard information.

Product Use:
 These products are for laboratory research use only and are not intended for
 human or animal diagnostics, therapeutic, or other clinical uses.

Synonyms:
 Not available.

2. COMPOSITION, INFORMATION ON INGREDIENTS

The following list shows components of this product classified as hazardous
 based on physical properties and health effects:

| Component | CAS No. | Percent |
|-------------------------|---------|---------|
| No hazardous components | | |

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50 BP DNA LADDER
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Page 2 of 7
Revised 2/02/04
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3. HAZARDS IDENTIFICATION

***** EMERGENCY OVERVIEW *****
Occupational exposure presents little or no health hazard.

Potential Health Effects:

Eye:
May cause irritation of the eye.

Skin:
May cause skin irritation.

Inhalation:
No toxicity expected from inhalation.

Ingestion:
Mildly irritating to mouth, throat, and stomach. Can cause abdominal discomfort.

Chronic:
No data on cancer.

4. FIRST AID MEASURES

Eye:
Flush with water in an eyewash for at least 15 minutes, holding eyelids open. Remove contact lenses, clean before re-use. Obtain medical attention if symptoms develop (redness, itching, etc.).

Skin:
Wash with plenty of soap and water. Obtain medical attention if symptoms develop (redness, itching, etc.). Remove contaminated clothes, wash before re-use.

Inhalation:
Remove person to fresh air. Obtain medical attention unless effects are mild and temporary.

Ingestion:
Give plenty of water, if conscious. If vomiting occurs naturally, wash mouth out. Be prepared to induce vomiting upon a physician's advice. Obtain medical attention if symptoms develop.

Note To Physician:
Treat symptomatically.

MATERIAL SAFETY DATA SHEET

50 BP DNA LADDER
INVITROGEN CORPORATION
MSDS ID: 10416

Page 3 of 7
Revised 2/02/04
Replaces 11/17/03
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5. FIRE FIGHTING MEASURES

Flashpoint Deg C:
Upper Flammable Limit %:
Lower Flammable Limit %:
Autoignition Temperature Deg C:

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

Extinguishing Media:
Use means appropriate for surrounding materials.

Firefighting Techniques/Equipment:
Standard turnout gear ("bunker gear"). Positive-pressure self-contained breathing apparatus.

Hazardous Combustion Products:
Includes carbon dioxide, carbon monoxide, dense smoke.

6. ACCIDENTAL RELEASE MEASURES

Accidental releases may be subject to special reporting requirements and other regulatory mandates. Refer to Section 8 for personal protection equipment recommendations.

Spill Cleanup:
Absorb spill. Common absorbent materials should be effective. Deposit in appropriate containers for removal and disposal.

7. HANDLING AND STORAGE

Storage of some materials is regulated by federal, state, and/or local laws.

Storage Pressure:
Ambient

Handling Procedures:
Keep closed or covered when not in use.

Storage Procedures:
Suitable for most general chemical storage areas.

MATERIAL SAFETY DATA SHEET

Page 4 of 7
Revised 2/02/04
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8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Exposure Limits:

| Component | OSHA PEL (ppm) | AGCIH TWA (ppm) |
|-------------------------|-------------------|--------------------|
| No hazardous components | | |

Engineering Controls:

Area ventilation is generally adequate.

Personal Protective Equipment:

Eye:

Safety glasses should be the minimum eye protection.

Skin:

Gloves should be used as minimum hand protection.

Respiratory:

No respiratory protection will be needed under normal industrial operating conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------------|---------------------------|
| Appearance/physical state: | Clear, colorless liquid. |
| Odor: | No odor. |
| Boiling Point (C): | 100 |
| Melting Point (C): | 0 |
| Solubility in water: | 100% |
| pH: | 7.0 |
| Vapor Pressure: | 0.0212 ATM AT 20°C |
| Vapor Density: | 17.3 G/M3 |
| Specific Gravity/Density: | 1.00 |
| Octanol/water Partition Coeff: | Not established. |
| Volatiles: | Not established. |
| Evaporation Rate: | 0.3 (BUTYL ACETATE = 1.0) |
| Viscosity: | 0.98 cp at 20°C |

10. STABILITY AND REACTIVITY

Stability:

Stable under ordinary conditions of use and storage.

Conditions to Avoid:

Strong oxidizers.

Hazardous Decomposition Products:

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50 BP DNA LADDER
INVITROGEN CORPORATION
MSDS ID: 10416

Page 5 of 7
Revised 2/02/04
Replaces 11/17/03
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10. STABILITY AND REACTIVITY (CONT.)

None known.

Hazardous Polymerization:
Not expected to occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Dermal/Skin:
Not determined.

Inhalation/Respiratory:
Not determined.

Oral/Ingestion:
Not determined.

Target Organs: No data found.

Carcinogenicity:

NTP:
Not tested.

IARC:
Not listed.

OSHA:
Not regulated.

Other Toxicological Information

12. Ecological Information

Ecotoxicological Information: No ecological information available.

Environmental Fate (Degradation, Transformation, and Persistence):
Bioconcentration is not expected to occur.

13. DISPOSAL CONSIDERATIONS

Regulatory Information:
Not applicable.

MATERIAL SAFETY DATA SHEET

Page 6 of 7
Revised 2/02/04
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13. DISPOSAL CONSIDERATIONS (CONT.)

Disposal Method:
Clean up and dispose of waste in accordance with all federal, state, and local environmental regulations.

14. TRANSPORT INFORMATION

Proper Shipping Name: Not Determined.
Subsidiary Hazards:

15. REGULATORY INFORMATION

UNITED STATES:

TSCA:
This product is solely for research and development purposes only and may not be used, processed or distributed for a commercial purpose. It may only be handled by technically qualified individuals.Prop 65 Listed Chemicals: PROP 65 PERCENT
No Prop 65 Chemicals.

No 313 Chemicals

CANADA:

DSL/NDSL:
Not determined.COMPONENT WHMIS Classification
No hazardous components

EUROPEAN UNION:

PRODUCT RISK PHRASES: None assigned.
PRODUCT SAFETY PHRASES: Not applicable.
PRODUCT CLASSIFICATION: Not classified as hazardousComponent EINECS
No hazardous components Number

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Page 7 of 7
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16. OTHER INFORMATION

HMIS Rating 0-4:

FIRE: Not determined.
HEALTH: Not determined.
REACTIVITY: Not determined.

Abbreviations

N/A - Data is not applicable or not available
SARA - Superfund and Reauthorization Act
HMIS - Hazard Material Information System
WHMIS - Workplace Hazard Materials Information System
NTP - National Toxicology Program
OSHA - Occupational Health and Safety Administration
IARC - International Agency for Research on Cancer
PROP 65 - California Safe Drinking Water and
Toxic Enforcement Act of 1986
EINECS - European Inventory of Existing Commercial
Chemical Substances

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