

**Kit ingredients**

Product: 3' End-Labeling Application Pack

Product code: M7710

<b>Substance number</b>	<b>Description</b>	<b>Count</b>	<b>Symbols</b>
M187	Terminal Deoxynucleotidyl Transferase	1	-
M189	Terminal Transferase 5X Buffer	1	Xn
M195	DNA Polymerase 10X Buffer	1	-
M220	Klenow Fragment	1	-
U120	dATP, 100mM	1	-
U121	dGTP, 100mM	1	-
U122	dCTP, 100mM	1	-
U123	dTTP, 100mM	1	-
U202	Positive Control Oligo(dT)15 primer	1	-



**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Not classified as hazardous according to criteria of Worksafe Australia

## 1 Identification of substance

**Trade name:** Terminal Deoxynucleotidyl Transferase

**Article number:** M187

**Application of the substance / the preparation:** Laboratory chemicals

**Manufacturer/Supplier:**

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.  
1-608-274-4330  
1-800-356-9526

**MSDS author:** [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@promega.com)

**Further information obtainable from:**

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Annandale NSW 2038  
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Web Address: [www.promega.com/au/](http://www.promega.com/au/)

**Information in case of emergency:**

CHEMTREC 1-800-424-9300  
For call originating outside the United States dial 001-703-527-3887

## 2 Hazards identification

**Hazard description:** not applicable

**Information concerning to particular hazards to man and environment**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: Terminal Deoxynucleotidyl Transferase**

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### 3 Composition/information on ingredients

**Chemical characterization**

**Description:** Mixture of substances listed below with nonhazardous additions.

**Components:**

CAS: 56-81-5	glycerol	25-50%
RTECS: MA 8050000		

**Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

**General information:** No special measures required.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If symptoms persist consult doctor.

### 5 Fire fighting measures

**Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Person-related safety precautions:** Not required.

**Measures for environmental protection:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Additional information:** No dangerous substances are released.

### 7 Handling and storage

**Handling**

**Information for safe handling:** No special measures required.

**Information about fire - and explosion protection:** No special measures required.

**Storage**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

### \* 8 Exposure controls and personal protection gear

**Additional information about design of technical facilities:** No further data; see item 7.

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**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Trade name: *Terminal Deoxynucleotidyl Transferase*

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**Ingredients with limit values that require monitoring at the workplace:****56-81-5 glycerol**

NES (Australia)	10 mg/m <sup>3</sup>
PEL (USA)	15* 5** mg/m <sup>3</sup> *total dust **respirable fraction
TLV (USA)	10 ppm

**Additional information:** The lists valid during the making were used as basis.

**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:** Not required.

**Protection of hands:**

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Goggles recommended during refilling.

## 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic

**Change in condition**

<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	100°C (212°F)

**Flash point:** > 100°C (> 212°F)

**Ignition temperature:** 400°C (752°F)

**Self-igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Explosion limits:**

**Lower:** 0.9 Vol %

**Vapour pressure at 20°C (68°F):** 0.1 hPa (0 mm Hg)

**Density at 20°C (68°F):** 1.145 g/cm<sup>3</sup>

**Solubility in / Miscibility with**

**Water:** Fully miscible

**Solvent content:**

<b>Organic solvents:</b>	50.0 %
<b>Water:</b>	48.0 %

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**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: Terminal Deoxynucleotidyl Transferase**

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**Solids content:** 1.0 %

### 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous reactions:** No dangerous reactions known

**Dangerous decomposition products:** No dangerous decomposition products known

### 11 Toxicological information

**Acute toxicity:**

**Primary irritant effect:**

**on the skin:** No irritant effect.

**on the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

### 12 Ecological information

**General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13 Disposal considerations

**Product:**

**Recommendation**

Smaller quantities can be disposed of with household waste.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

**Land transport ADR/RID (cross-border)**

**ADR/RID class:** -

**Maritime transport IMDG:**

**IMDG Class:** -

**Marine pollutant:** No

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**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: Terminal Deoxynucleotidyl Transferase**

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**Air transport ICAO-TI and IATA-DGR:**  
**ICAO/IATA Class: -**

**15 Regulations**

**Australian Inventory of Chemical Substances**

All ingredients are listed.

**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

**Special labelling of certain preparations:**

Safety data sheet available for professional user on request.

**National regulations**

**Technical instructions (air):**

Class	Share in %
Water	48.0
NK	50.0

**Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing MSDS:**

Promega Corporation

Safety Department

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

\* Data compared to the previous version altered.

AUS

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Hazardous according to criteria of Worksafe Australia

## 1 Identification of substance

**Trade name:** Terminal Transferase 5X Buffer

**Article number:** M189

**Application of the substance / the preparation:** Laboratory chemicals

**Manufacturer/Supplier:**

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.  
1-608-274-4330  
1-800-356-9526

**MSDS author:** [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@promega.com)

**Further information obtainable from:**

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Web Address: [www.promega.com/au/](http://www.promega.com/au/)

**Information in case of emergency:**

CHEMTREC 1-800-424-9300

For call originating outside the United States dial 001-703-527-3887

## 2 Hazards identification

**Hazard description:**



Xn Harmful

**Information concerning to particular hazards to man and environment**

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

Harmful by inhalation and if swallowed.

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**Safety Data Sheet**  
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Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: Terminal Transferase 5X Buffer**

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**Classification system:**

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

### 3 Composition/information on ingredients

**Chemical characterization**

**Description:** Mixture of substances listed below with nonhazardous additions.

**Components:**

CAS: 75-60-5	dimethylarsinic acid	5-10%
RTECS: CH7525000		

**Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

**General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:** Immediately wash with soap, water and rinse thoroughly.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** Call for a doctor immediately.

### 5 Fire fighting measures

**Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Protective equipment:** Mount respiratory protective device.

### 6 Accidental release measures

**Person-related safety precautions:** Not required.

**Measures for environmental protection:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

### \* 7 Handling and storage

**Handling****Information for safe handling:**

Keep receptacles tightly sealed.

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

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Trade name: Terminal Transferase 5X Buffer

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**Information about fire - and explosion protection:** No special measures required.

**Storage**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** Keep receptacle tightly sealed.

## 8 Exposure controls and personal protection gear

**Additional information about design of technical facilities:** No further data; see item 7.

**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists valid during the making were used as basis.

**Personal protective equipment****General protective and hygienic measures**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

**Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Protection of hands:**

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Goggles recommended during refilling.

## 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic

**Change in condition**

<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	100°C (212°F)

**Flash point:** Not applicable

**Self-igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Density at 20°C (68°F):** 1.044 g/cm<sup>3</sup>

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**Safety Data Sheet**  
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Revision: 31.10.2007

**Trade name: Terminal Transferase 5X Buffer**

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**Solubility in / Miscibility with**  
**Water:** Fully miscible

**Solvent content:**  
**Organic solvents:** 0.0 %  
**Water:** 93.1 %

**Solids content:** 6.9 %

### 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous reactions:** Reacts with strong acids and alkali

**Dangerous decomposition products:**

Carbon monoxide and carbon dioxide

Chlorine

Nitrogen oxides

Arsenic compounds

### 11 Toxicological information

**Acute toxicity:**

**LD/LC50 values relevant for classification:**

**75-60-5 dimethylarsinic acid**

Oral	LD50	644 mg/kg (Rat)
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**Primary irritant effect:**

**on the skin:** No irritant effect.

**on the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

Harmful

### 12 Ecological information

**General notes:**

Water danger class 3 (German Regulation) (Self-assessment): extremely hazardous for water.

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

### 13 Disposal considerations

**Product:**

**Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

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Revision: 31.10.2007

**Trade name: Terminal Transferase 5X Buffer**

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**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**14 Transport information**

**Maritime transport IMDG:**

**Marine pollutant:** No

**15 Regulations**

**Australian Inventory of Chemical Substances**

All ingredients are listed.

**Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

**Hazard-determining components of labelling:**

dimethylarsinic acid

**Risk phrases:**

Harmful by inhalation and if swallowed.

**Safety phrases:**

Keep container in a well-ventilated place.

Do not breathe gas/fumes/vapour/spray (appropriate wording to be specified by the manufacturer).

After contact with skin, wash immediately with plenty of soap and water.

Wear suitable protective clothing.

This material and its container must be disposed of as hazardous waste.

**National regulations**

**Waterhazard class:** Water danger class 3 (Self-assessment): extremely hazardous for water.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing MSDS:**

Promega Corporation

Safety Department

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

**Contact:**

Promega Corporation

37 Nelson Street

Annandale NSW 2038, Australia

\* Data compared to the previous version altered.

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Not classified as hazardous according to criteria of Worksafe Australia

## 1 Identification of substance

**Trade name:** DNA Polymerase 10X Buffer

**Article number:** M195

**Application of the substance / the preparation:** Laboratory chemicals

**Manufacturer/Supplier:**

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.  
1-608-274-4330  
1-800-356-9526

**MSDS author:** [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@promega.com)

**Further information obtainable from:**

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Tel: (61) 03 9818 1466  
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Toll free Tel: 1800 335 435  
E-mail Address: [aus\\_custserv@au.promega.com](mailto:aus_custserv@au.promega.com)  
Web Address: [www.promega.com/au/](http://www.promega.com/au/)

**Information in case of emergency:**

CHEMTREC 1-800-424-9300  
For call originating outside the United States dial 001-703-527-3887

## 2 Hazards identification

**Hazard description:** not applicable

**Information concerning to particular hazards to man and environment**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

AUS

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# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 31.10.2007

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Trade name: DNA Polymerase 10X Buffer

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### 3 Composition/information on ingredients

#### Chemical characterization

**Description:** Mixture of substances listed below with nonhazardous additions.

#### Components:

1185-53-1	Tris(hydroxymethyl)aminomethane hydrochloride	5-10%
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**Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

**General information:** No special measures required.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If symptoms persist consult doctor.

### 5 Fire fighting measures

#### Suitable extinguishing agents:

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Person-related safety precautions:** Not required.

#### Measures for environmental protection:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

#### Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Additional information:** No dangerous substances are released.

### 7 Handling and storage

#### Handling

**Information for safe handling:** No special measures required.

**Information about fire - and explosion protection:** No special measures required.

#### Storage

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

### 8 Exposure controls and personal protection gear

**Additional information about design of technical facilities:** No further data; see item 7.

#### Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists valid during the making were used as basis.

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Trade name: DNA Polymerase 10X Buffer

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**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:** Not required.

**Protection of hands:**

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Goggles recommended during refilling.

## 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic

**Change in condition**

<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	100°C (212°F)

**Flash point:** Not applicable

**Self-igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Density:** Not determined

**Solubility in / Miscibility with**

**Water:** Fully miscible

**Solvent content:**

<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	89.0 %

**Solids content:** 10.2 %

## 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous reactions:** No dangerous reactions known

**Dangerous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

**Acute toxicity:**

**Primary irritant effect:**

**on the skin:** No irritant effect.

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**Safety Data Sheet**  
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Revision: 31.10.2007

**Trade name: DNA Polymerase 10X Buffer**

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**on the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

**Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

## 12 Ecological information

**General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## 13 Disposal considerations

**Product:**

**Recommendation**

Smaller quantities can be disposed of with household waste.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## 14 Transport information

**Land transport ADR/RID (cross-border)**

ADR/RID class: -

**Maritime transport IMDG:**

IMDG Class: -

Marine pollutant: No

**Air transport ICAO-TI and IATA-DGR:**

ICAO/IATA Class: -

## 15 Regulations

**Australian Inventory of Chemical Substances**

All ingredients are listed.

**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

**Special labelling of certain preparations:**

Safety data sheet available for professional user on request.

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AUS

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: DNA Polymerase 10X Buffer**

(Contd. of page 4)

**National regulations****Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.**16 Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**Department issuing MSDS:**

Promega Corporation

Safety Department

2800 Woods Hollow Road

Madison, WI 53711

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Revision: 31.10.2007

Not classified as hazardous according to criteria of Worksafe Australia

## 1 Identification of substance

**Trade name:** Klenow Fragment

**Article number:** M220

**Application of the substance / the preparation:** Laboratory chemicals

**Manufacturer/Supplier:**

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.  
1-608-274-4330  
1-800-356-9526

**MSDS author:** [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@promega.com)

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For call originating outside the United States dial 001-703-527-3887

## 2 Hazards identification

**Hazard description:** not applicable

**Information concerning to particular hazards to man and environment**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Trade name: **Klenow Fragment**

(Contd. of page 1)

### 3 Composition/information on ingredients

**Chemical characterization**

**Description:** Mixture of substances listed below with nonhazardous additions.

**Components:**

CAS: 56-81-5	glycerol	25-50%
RTECS: MA 8050000		

**Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

**General information:** No special measures required.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If symptoms persist consult doctor.

### 5 Fire fighting measures

**Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Person-related safety precautions:** Not required.

**Measures for environmental protection:** Do not allow to enter sewers/ surface or ground water.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Additional information:** No dangerous substances are released.

### 7 Handling and storage

**Handling**

**Information for safe handling:** No special measures required.

**Information about fire - and explosion protection:** No special measures required.

**Storage**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

### 8 Exposure controls and personal protection gear

**Additional information about design of technical facilities:** No further data; see item 7.

**Ingredients with limit values that require monitoring at the workplace:**

**56-81-5 glycerol**

NES (Australia)	10 mg/m <sup>3</sup>
PEL (USA)	15* 5** mg/m <sup>3</sup>
	*total dust **respirable fraction
TLV (USA)	10 ppm

(Contd. on page 3)

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: Klenow Fragment**

(Contd. of page 2)

**Additional information:** The lists valid during the making were used as basis.**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:** Not required.**Protection of hands:**

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Goggles recommended during refilling.**9 Physical and chemical properties****General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic

**Change in condition**

<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	100°C (212°F)

**Flash point:** > 100°C (> 212°F)**Ignition temperature:** 400°C (752°F)**Self-igniting:** Product is not selfigniting.**Danger of explosion:** Product does not present an explosion hazard.**Explosion limits:****Lower:** 0.9 Vol %**Vapour pressure at 20°C (68°F):** 0.1 hPa (0 mm Hg)**Density:** Not determined**Solubility in / Miscibility with****Water:** Not miscible or difficult to mix**pH-value at 20°C (68°F):** 0**Solvent content:**

<b>Organic solvents:</b>	50.0 %
<b>Water:</b>	49.0 %

**Solids content:** 1.0 %**10 Stability and reactivity****Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

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**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: Klenow Fragment**

(Contd. of page 3)

**Dangerous reactions:** No dangerous reactions known**Dangerous decomposition products:** No dangerous decomposition products known**11 Toxicological information****Acute toxicity:****Primary irritant effect:****on the skin:** No irritant effect.**on the eye:** Irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

**12 Ecological information****General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

**13 Disposal considerations****Product:****Recommendation**

Smaller quantities can be disposed of with household waste.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

**14 Transport information****Land transport ADR/RID (cross-border)**

ADR/RID class: -

**Maritime transport IMDG:**

IMDG Class: -

Marine pollutant: No

**Air transport ICAO-TI and IATA-DGR:**

ICAO/IATA Class: -

AUS

(Contd. on page 5)

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Trade name: **Klenow Fragment**

(Contd. of page 4)

**15 Regulations****Australian Inventory of Chemical Substances**

All ingredients are listed.

**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

**Special labelling of certain preparations:**

Safety data sheet available for professional user on request.

**National regulations****Technical instructions (air):**

Class	Share in %
Water	49.0
NK	50.0

**Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**Department issuing MSDS:**

Promega Corporation

Safety Department

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

AUS

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Not classified as hazardous according to criteria of Worksafe Australia

## 1 Identification of substance

**Trade name:** dATP, 100mM

**Article number:** U120

**Application of the substance / the preparation:** Laboratory chemicals

**Manufacturer/Supplier:**

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.  
1-608-274-4330  
1-800-356-9526

**MSDS author:** [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@promega.com)

**Further information obtainable from:**

37 Nelson Street  
Annandale NSW 2038  
AUSTRALIA  
Sydney  
Tel: (61) 02 9565 1100  
Fax: (61) 02 9550 4454  
Toll free Tel: 1800 225 123  
Toll free Fax: 1800 626 017  
Melbourne  
Tel: (61) 03 9818 1466  
Fax: (61) 03 9818 1244  
Toll free Tel: 1800 335 435  
E-mail Address: [aus\\_custserv@au.promega.com](mailto:aus_custserv@au.promega.com)  
Web Address: [www.promega.com/au/](http://www.promega.com/au/)

**Information in case of emergency:**

CHEMTREC 1-800-424-9300

For call originating outside the United States dial 001-703-527-3887

## 2 Hazards identification

**Hazard description:** not applicable

**Information concerning to particular hazards to man and environment**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Trade name: dATP, 100mM

(Contd. of page 1)

### 3 Composition/information on ingredients

#### Chemical characterization

**Description:** Mixture of substances listed below with nonhazardous additions.

#### Components:

74804-12-9	Magnesium ATP	5-10%
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**Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

**General information:** No special measures required.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If symptoms persist consult doctor.

### 5 Fire fighting measures

#### Suitable extinguishing agents:

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Person-related safety precautions:** Not required.

#### Measures for environmental protection:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

#### Measures for cleaning/collecting:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Additional information:** No dangerous substances are released.

### 7 Handling and storage

#### Handling

**Information for safe handling:** No special measures required.

**Information about fire - and explosion protection:** No special measures required.

#### Storage

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

### 8 Exposure controls and personal protection gear

**Additional information about design of technical facilities:** No further data; see item 7.

#### Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists valid during the making were used as basis.

(Contd. on page 3)

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dATP, 100mM**

(Contd. of page 2)

**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:** Not required.

**Protection of hands:**

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Goggles recommended during refilling.

## 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic

**Change in condition**

<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	100°C (212°F)

**Flash point:** Not applicable

**Self-igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Density:** Not determined

**Solubility in / Miscibility with**

**Water:** Fully miscible

**Solvent content:**

<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	94.4 %

**Solids content:** 10.0 %

## 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous reactions:** No dangerous reactions known

**Dangerous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

**Acute toxicity:**

**Primary irritant effect:**

**on the skin:** No irritant effect.

(Contd. on page 4)

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dATP, 100mM**

(Contd. of page 3)

**on the eye:** Irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

**12 Ecological information****General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**13 Disposal considerations****Product:****Recommendation**

Smaller quantities can be disposed of with household waste.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**14 Transport information****Land transport ADR/RID (cross-border)**

ADR/RID class: -

**Maritime transport IMDG:**

IMDG Class: -

Marine pollutant: No

**Air transport ICAO-TI and IATA-DGR:**

ICAO/IATA Class: -

**15 Regulations****Australian Inventory of Chemical Substances**

7732-18-5 | water, distilled, conductivity or of similar purity

**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

**Special labelling of certain preparations:**

Safety data sheet available for professional user on request.

(Contd. on page 5)

AUS

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dATP, 100mM**

(Contd. of page 4)

**National regulations****Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.**16 Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**Department issuing MSDS:**

Promega Corporation

Safety Department

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

AUS

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Not classified as hazardous according to criteria of Worksafe Australia

## 1 Identification of substance

**Trade name:** dGTP, 100mM

**Article number:** U121

**Application of the substance / the preparation:** Laboratory chemicals

**Manufacturer/Supplier:**

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.  
1-608-274-4330  
1-800-356-9526

**MSDS author:** [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@promega.com)

**Further information obtainable from:**

37 Nelson Street  
Annandale NSW 2038  
AUSTRALIA  
Sydney  
Tel: (61) 02 9565 1100  
Fax: (61) 02 9550 4454  
Toll free Tel: 1800 225 123  
Toll free Fax: 1800 626 017  
Melbourne  
Tel: (61) 03 9818 1466  
Fax: (61) 03 9818 1244  
Toll free Tel: 1800 335 435  
E-mail Address: [aus\\_custserv@au.promega.com](mailto:aus_custserv@au.promega.com)  
Web Address: [www.promega.com/au/](http://www.promega.com/au/)

**Information in case of emergency:**

CHEMTREC 1-800-424-9300

For call originating outside the United States dial 001-703-527-3887

## 2 Hazards identification

**Hazard description:** not applicable

**Information concerning to particular hazards to man and environment**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

AUS

(Contd. on page 2)

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dGTP, 100mM**

(Contd. of page 1)

## 3 Composition/information on ingredients

**Chemical characterization****Description:** Mixture of substances listed below with nonhazardous additions.**Components:** Void**Additional information:** For the wording of the listed risk phrases refer to section 16.

## 4 First aid measures

**General information:** No special measures required.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Generally the product does not irritate the skin.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** If symptoms persist consult doctor.

## 5 Fire fighting measures

**Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**Protective equipment:** No special measures required.

## 6 Accidental release measures

**Person-related safety precautions:** Not required.**Measures for environmental protection:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Additional information:** No dangerous substances are released.

## 7 Handling and storage

**Handling****Information for safe handling:** No special measures required.**Information about fire - and explosion protection:** No special measures required.**Storage****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** None.

## 8 Exposure controls and personal protection gear

**Additional information about design of technical facilities:** No further data; see item 7.**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists valid during the making were used as basis.

(Contd. on page 3)

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dGTP, 100mM**

(Contd. of page 2)

**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:** Not required.

**Protection of hands:**

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Goggles recommended during refilling.

## 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic

**Change in condition**

**Melting point/Melting range:** undetermined  
**Boiling point/Boiling range:** 100°C (212°F)

**Flash point:** Not applicable

**Self-igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Density:** Not determined

**Solubility in / Miscibility with**

**Water:** Fully miscible

**Solvent content:**

<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	94.3 %

**Solids content:** 10.0 %

## 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous reactions:** No dangerous reactions known

**Dangerous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

**Acute toxicity:****Primary irritant effect:**

**on the skin:** No irritant effect.

(Contd. on page 4)

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dGTP, 100mM**

(Contd. of page 3)

**on the eye:** Irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

## 12 Ecological information

**General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

## 13 Disposal considerations

**Product:****Recommendation**

Smaller quantities can be disposed of with household waste.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## 14 Transport information

**Land transport ADR/RID (cross-border)**

ADR/RID class: -

**Maritime transport IMDG:**

IMDG Class: -

Marine pollutant: No

**Air transport ICAO-TI and IATA-DGR:**

ICAO/IATA Class: -

## 15 Regulations

**Australian Inventory of Chemical Substances**

7732-18-5 | water, distilled, conductivity or of similar purity

**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

**National regulations**

**Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

AUS

(Contd. on page 5)

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dGTP, 100mM**

(Contd. of page 4)

**16 Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**Department issuing MSDS:***Promega Corporation**Safety Department**2800 Woods Hollow Road**Madison, WI 53711**U.S.A.*

AUS

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Not classified as hazardous according to criteria of Worksafe Australia

## 1 Identification of substance

**Trade name:** dCTP, 100mM

**Article number:** U122

**Application of the substance / the preparation:** Laboratory chemicals

**Manufacturer/Supplier:**

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.  
1-608-274-4330  
1-800-356-9526

**MSDS author:** [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@promega.com)

**Further information obtainable from:**

37 Nelson Street  
Annandale NSW 2038  
AUSTRALIA  
Sydney  
Tel: (61) 02 9565 1100  
Fax: (61) 02 9550 4454  
Toll free Tel: 1800 225 123  
Toll free Fax: 1800 626 017  
Melbourne  
Tel: (61) 03 9818 1466  
Fax: (61) 03 9818 1244  
Toll free Tel: 1800 335 435  
E-mail Address: [aus\\_custserv@au.promega.com](mailto:aus_custserv@au.promega.com)  
Web Address: [www.promega.com/au/](http://www.promega.com/au/)

**Information in case of emergency:**

CHEMTREC 1-800-424-9300  
For call originating outside the United States dial 001-703-527-3887

## 2 Hazards identification

**Hazard description:** not applicable

**Information concerning to particular hazards to man and environment**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dCTP, 100mM**

(Contd. of page 1)

## 3 Composition/information on ingredients

**Chemical characterization****Description:** Mixture of substances listed below with nonhazardous additions.**Components:** Void**Additional information:** For the wording of the listed risk phrases refer to section 16.

## 4 First aid measures

**General information:** No special measures required.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Generally the product does not irritate the skin.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** If symptoms persist consult doctor.

## 5 Fire fighting measures

**Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**Protective equipment:** No special measures required.

## 6 Accidental release measures

**Person-related safety precautions:** Not required.**Measures for environmental protection:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Additional information:** No dangerous substances are released.

## 7 Handling and storage

**Handling****Information for safe handling:** No special measures required.**Information about fire - and explosion protection:** No special measures required.**Storage****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** None.

## 8 Exposure controls and personal protection gear

**Additional information about design of technical facilities:** No further data; see item 7.**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists valid during the making were used as basis.

(Contd. on page 3)

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dCTP, 100mM**

(Contd. of page 2)

**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:** Not required.

**Protection of hands:**

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Goggles recommended during refilling.

## 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic

**Change in condition**

<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	100°C (212°F)

**Flash point:** Not applicable

**Self-igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Density:** Not determined

**Solubility in / Miscibility with**

**Water:** Fully miscible

**Solvent content:**

<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	94.7 %

**Solids content:** 10.0 %

## 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous reactions:** No dangerous reactions known

**Dangerous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

**Acute toxicity:**

**Primary irritant effect:**

**on the skin:** No irritant effect.

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**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dCTP, 100mM**

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**on the eye:** Irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

**12 Ecological information****General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**13 Disposal considerations****Product:****Recommendation**

Smaller quantities can be disposed of with household waste.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**14 Transport information****Land transport ADR/RID (cross-border)**

ADR/RID class: -

**Maritime transport IMDG:**

IMDG Class: -

Marine pollutant: No

**Air transport ICAO-TI and IATA-DGR:**

ICAO/IATA Class: -

**15 Regulations****Australian Inventory of Chemical Substances**

7732-18-5 | water, distilled, conductivity or of similar purity

**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

**National regulations**

**Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

AUS

(Contd. on page 5)

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dCTP, 100mM**

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**16 Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**Department issuing MSDS:***Promega Corporation**Safety Department**2800 Woods Hollow Road**Madison, WI 53711**U.S.A.*

AUS

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Not classified as hazardous according to criteria of Worksafe Australia

## 1 Identification of substance

**Trade name:** dTTP, 100mM

**Article number:** U123

**Application of the substance / the preparation:** Laboratory chemicals

**Manufacturer/Supplier:**

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.  
1-608-274-4330  
1-800-356-9526

**MSDS author:** [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@promega.com)

**Further information obtainable from:**

37 Nelson Street  
Annandale NSW 2038  
AUSTRALIA  
Sydney  
Tel: (61) 02 9565 1100  
Fax: (61) 02 9550 4454  
Toll free Tel: 1800 225 123  
Toll free Fax: 1800 626 017  
Melbourne  
Tel: (61) 03 9818 1466  
Fax: (61) 03 9818 1244  
Toll free Tel: 1800 335 435  
E-mail Address: [aus\\_custserv@au.promega.com](mailto:aus_custserv@au.promega.com)  
Web Address: [www.promega.com/au/](http://www.promega.com/au/)

**Information in case of emergency:**

CHEMTREC 1-800-424-9300

For call originating outside the United States dial 001-703-527-3887

## 2 Hazards identification

**Hazard description:** not applicable

**Information concerning to particular hazards to man and environment**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dTTP, 100mM**

(Contd. of page 1)

### 3 Composition/information on ingredients

**Chemical characterization****Description:** Mixture of substances listed below with nonhazardous additions.**Components:** Void**Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

**General information:** No special measures required.**After inhalation:** Supply fresh air; consult doctor in case of complaints.**After skin contact:** Generally the product does not irritate the skin.**After eye contact:** Rinse opened eye for several minutes under running water.**After swallowing:** If symptoms persist consult doctor.

### 5 Fire fighting measures

**Suitable extinguishing agents:**CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Person-related safety precautions:** Not required.**Measures for environmental protection:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Additional information:** No dangerous substances are released.

### 7 Handling and storage

**Handling****Information for safe handling:** No special measures required.**Information about fire - and explosion protection:** No special measures required.**Storage****Requirements to be met by storerooms and receptacles:** No special requirements.**Information about storage in one common storage facility:** Not required.**Further information about storage conditions:** None.

### 8 Exposure controls and personal protection gear

**Additional information about design of technical facilities:** No further data; see item 7.**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists valid during the making were used as basis.

(Contd. on page 3)

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Trade name: dTTP, 100mM

(Contd. of page 2)

**Personal protective equipment****General protective and hygienic measures**

The usual precautionary measures are to be adhered to when handling chemicals.

**Respiratory protection:** Not required.

**Protection of hands:**

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Goggles recommended during refilling.

## 9 Physical and chemical properties

**General Information**

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic

**Change in condition**

<b>Melting point/Melting range:</b>	undetermined
<b>Boiling point/Boiling range:</b>	100°C (212°F)

**Flash point:** Not applicable

**Self-igniting:** Product is not selfigniting.

**Danger of explosion:** Product does not present an explosion hazard.

**Density:** Not determined

**Solubility in / Miscibility with**

**Water:** Fully miscible

**Solvent content:**

<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	94.5 %

**Solids content:** 10.0 %

## 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

**Dangerous reactions:** No dangerous reactions known

**Dangerous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

**Acute toxicity:**

**Primary irritant effect:**

**on the skin:** No irritant effect.

(Contd. on page 4)

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dTTP, 100mM**

(Contd. of page 3)

**on the eye:** Irritating effect.**Sensitization:** No sensitizing effects known.**Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

**12 Ecological information****General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**13 Disposal considerations****Product:****Recommendation**

Smaller quantities can be disposed of with household waste.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**14 Transport information****Land transport ADR/RID (cross-border)**

ADR/RID class: -

**Maritime transport IMDG:**

IMDG Class: -

Marine pollutant: No

**Air transport ICAO-TI and IATA-DGR:**

ICAO/IATA Class: -

**15 Regulations****Australian Inventory of Chemical Substances**

7732-18-5 | water, distilled, conductivity or of similar purity

**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

**National regulations**

**Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

AUS

(Contd. on page 5)

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: dTTP, 100mM**

(Contd. of page 4)

**16 Other information**

*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**Department issuing MSDS:***Promega Corporation**Safety Department**2800 Woods Hollow Road**Madison, WI 53711**U.S.A.*

AUS

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Not classified as hazardous according to criteria of Worksafe Australia

## 1 Identification of substance

**Trade name:** Positive Control Oligo(dT)15 primer

**Article number:** U202

**Application of the substance / the preparation:** Laboratory chemicals

**Manufacturer/Supplier:**

Promega Corporation  
2800 Woods Hollow Road  
Madison, WI 53711  
U.S.A.  
1-608-274-4330  
1-800-356-9526

**MSDS author:** [Regulatory.Affairs@promega.com](mailto:Regulatory.Affairs@promega.com)

**Further information obtainable from:**

37 Nelson Street  
Annandale NSW 2038  
AUSTRALIA  
Sydney  
Tel: (61) 02 9565 1100  
Fax: (61) 02 9550 4454  
Toll free Tel: 1800 225 123  
Toll free Fax: 1800 626 017  
Melbourne  
Tel: (61) 03 9818 1466  
Fax: (61) 03 9818 1244  
Toll free Tel: 1800 335 435  
E-mail Address: [aus\\_custserv@au.promega.com](mailto:aus_custserv@au.promega.com)  
Web Address: [www.promega.com/au/](http://www.promega.com/au/)

**Information in case of emergency:**

CHEMTREC 1-800-424-9300

For call originating outside the United States dial 001-703-527-3887

## 2 Hazards identification

**Hazard description:** not applicable

**Information concerning to particular hazards to man and environment**

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

**Classification system:**

The classification is in line with current EC lists. It is extended, by information from technical literature and company information.

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Trade name: Positive Control Oligo(dT)15 primer

(Contd. of page 1)

### 3 Composition/information on ingredients

**Chemical characterization**

**Description:** Mixture of substances listed below with nonhazardous additions.

**Components:** Void

**Additional information:** For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

**General information:** No special measures required.

**After inhalation:** Supply fresh air; consult doctor in case of complaints.

**After skin contact:** Generally the product does not irritate the skin.

**After eye contact:** Rinse opened eye for several minutes under running water.

**After swallowing:** If symptoms persist consult doctor.

### 5 Fire fighting measures

**Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Protective equipment:** No special measures required.

### 6 Accidental release measures

**Person-related safety precautions:** Not required.

**Measures for environmental protection:** Dilute with plenty of water.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

**Additional information:** No dangerous substances are released.

### 7 Handling and storage

**Handling**

**Information for safe handling:** No special measures required.

**Information about fire - and explosion protection:** No special measures required.

**Storage**

**Requirements to be met by storerooms and receptacles:** No special requirements.

**Information about storage in one common storage facility:** Not required.

**Further information about storage conditions:** None.

### 8 Exposure controls and personal protection gear

**Additional information about design of technical facilities:** No further data; see item 7.

**Ingredients with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

**Additional information:** The lists valid during the making were used as basis.

**Personal protective equipment**

**General protective and hygienic measures**

The usual precautionary measures are to be adhered to when handling chemicals.

(Contd. on page 3)

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

Trade name: Positive Control Oligo(dT)15 primer

(Contd. of page 2)

**Respiratory protection:** Not required.**Protection of hands:**

Protective gloves.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

**Penetration time of glove material:**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye protection:** Goggles recommended during refilling.

## 9 Physical and chemical properties

### General Information

<b>Form:</b>	Fluid
<b>Colour:</b>	Colourless
<b>Odour:</b>	Characteristic

### Change in condition

<b>Melting point/Melting range:</b>	0°C (32°F)
<b>Boiling point/Boiling range:</b>	100°C (212°F)

<b>Flash point:</b>	Not applicable
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<b>Self-igniting:</b>	Product is not selfigniting.
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<b>Danger of explosion:</b>	Product does not present an explosion hazard.
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<b>Density at 20°C (68°F):</b>	1 g/cm <sup>3</sup>
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### Solubility in / Miscibility with

<b>Water:</b>	Fully miscible
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### Solvent content:

<b>Organic solvents:</b>	0.0 %
<b>Water:</b>	99.9 %

<b>Solids content:</b>	10.0 %
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## 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.**Dangerous reactions:** No dangerous reactions known**Dangerous decomposition products:** No dangerous decomposition products known

## 11 Toxicological information

**Acute toxicity:****Primary irritant effect:****on the skin:** No irritant effect.**on the eye:** Irritating effect.**Sensitization:** No sensitizing effects known.

(Contd. on page 4)

AUS

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: Positive Control Oligo(dT)15 primer**

(Contd. of page 3)

**Additional toxicological information:**

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

**12 Ecological information**

**General notes:** Generally not hazardous for water.

**13 Disposal considerations****Product:****Recommendation**

Smaller quantities can be disposed of with household waste.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**Uncleaned packaging:**

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agents:** Water, if necessary together with cleansing agents.

**14 Transport information****Land transport ADR/RID (cross-border)**

**ADR/RID class:** -

**Maritime transport IMDG:**

**IMDG Class:** -

**Marine pollutant:** No

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA Class:** -

**15 Regulations****Australian Inventory of Chemical Substances**

7732-18-5 | water, distilled, conductivity or of similar purity

**Labelling according to EU guidelines:**

Observe the general safety regulations when handling chemicals

The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (German GefStoffV).

**National regulations**

**Waterhazard class:** Generally not hazardous for water.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

(Contd. on page 5)

AUS

**Safety Data Sheet**  
according to 1907/2006/EC, Article 31

Printing date 31.10.2007

Revision: 31.10.2007

**Trade name: Positive Control Oligo(dT)15 primer**

(Contd. of page 4)

**Department issuing MSDS:**

*Promega Corporation*

*Safety Department*

*2800 Woods Hollow Road*

*Madison, WI 53711*

*U.S.A.*

AUS