

11/05/2007

Kit ingredients

Product: 3' End-Labeling Application Pack

Product code: M7710

Substance number	Description	Count	Symbols
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 05.11.2007

Revision: 05.11.2007

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

Further information obtainable from:

Promega UK Ltd.
Delta House
Southampton Science Park
Southampton SO16 7NS
UNITED KINGDOM
Tel: (44) 23 8076 0225
Fax: (44) 23 8076 7014
FREEPHONE: 0800 378994
E-mail Address: ukcustserve@promega.com
Web Address: www.promega.com/uk/

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.

3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

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Safety Data Sheet

according to 1907/2006/EC, Article 31

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Trade name: Terminal Deoxynucleotidyl Transferase

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Components:

CAS: 56-81-5	glycerol	25-50%
EINECS: 200-289-5		

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.

Ingredients with limit values that require monitoring at the workplace:

56-81-5 glycerol

WEL Long-term value: 10 mg/m³

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.

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Safety Data Sheet
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Trade name: *Terminal Deoxynucleotidyl Transferase*

(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

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	100°C

Flash point: > 100°C**Ignition temperature:** 400°C**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:** 0.1 hPa**Density at 20°C:** 1.145 g/cm³

Solubility in / Miscibility with

Water: Fully miscible

Solvent content:

Organic solvents: 50.0 %**Water:** 48.0 %**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

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Trade name: Terminal Deoxynucleotidyl Transferase

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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

*Contact Promega Safety Department for additional 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

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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Trade name: Terminal Deoxynucleotidyl Transferase

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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.

Contact:

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Delta House, Enterprise Road
Chilworth Science Park
Southampton SO16 7NS
UNITED KINGDOM
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Free Fax +44 800 181037

*** Data compared to the previous version altered.**

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

Printing date 05.11.2007

Revision: 05.11.2007

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

Further information obtainable from:

Promega UK Ltd.
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Southampton Science Park
Southampton SO16 7NS
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Tel: (44) 23 8076 0225
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FREEPHONE: 0800 378994
E-mail Address: ukcustserve@promega.com
Web Address: www.promega.com/uk/

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.

R 20/22 Harmful by inhalation and if swallowed.

Classification system:

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

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Trade name: Terminal Transferase 5X Buffer


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3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

Components:

CAS: 75-60-5	dimethylarsinic acid	 T; R 23/25	5-10%
EINECS: 200-883-4			

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:

CO₂, 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.

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.

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Trade name: Terminal Transferase 5X Buffer

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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

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

Change in condition

Melting point/Melting range: undetermined

Boiling point/Boiling range: 100°C

Flash point: Not applicable

Self-igniting: Product is not selfigniting.

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

Density at 20°C: 1.044 g/cm³

Solubility in / Miscibility with

Water: Fully miscible

Solvent content:

Organic solvents: 0.0 %

Water: 93.1 %

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Trade name: Terminal Transferase 5X Buffer

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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.

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

* 14 Transport information

Contact Promega Safety Department for additional transport information.

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Trade name: Terminal Transferase 5X Buffer

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Land transport ADR/RID (cross-border)**Description of goods:** 2206 ISOCYANATES, TOXIC, N.O.S. (CACODYLIC ACID)**Maritime transport IMDG:****Marine pollutant:** No

15 Regulations

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:

20/22 Harmful by inhalation and if swallowed.

Safety phrases:

9 Keep container in a well-ventilated place.

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

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

36 Wear suitable protective clothing.

60 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.

Relevant R-phrases

23/25 Toxic by inhalation and if swallowed.

Department issuing MSDS:

Promega Corporation

Safety Department

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

Contact:

Promega UK

Delta House, Enterprise Road

Chilworth Science Park

Southampton SO16 7NS

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Free Fax +44 800 181037

*** Data compared to the previous version altered.**

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

Printing date 05.11.2007

Revision: 05.11.2007

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

Further information obtainable from:

Promega UK Ltd.
Delta House
Southampton Science Park
Southampton SO16 7NS
UNITED KINGDOM
Tel: (44) 23 8076 0225
Fax: (44) 23 8076 7014
FREEPHONE: 0800 378994
E-mail Address: ukcustserve@promega.com
Web Address: www.promega.com/uk/

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.

3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

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Trade name: DNA Polymerase 10X Buffer

(Contd. of page 1)

Components:

CAS: 1185-53-1	Tris(hydroxymethyl)aminomethane hydrochloride	☒ Xi; R 36/37/38	5-10%
EINECS: 214-684-5			

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:

CO₂, 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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Revision: 05.11.2007

Trade name: DNA Polymerase 10X Buffer

(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

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

Change in condition

Melting point/Melting range: undetermined

Boiling point/Boiling range: 100°C

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:

Organic solvents: 0.0 %

Water: 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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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

Contact Promega Safety Department for additional 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

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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Trade name: DNA Polymerase 10X Buffer

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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.

Relevant R-phrases*36/37/38 Irritating to eyes, respiratory system and skin.***Department issuing MSDS:**

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

Contact:

*Promega UK
Delta House, Enterprise Road
Chilworth Science Park
Southampton SO16 7NS
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Free Fax +44 800 181037*

GB

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

Printing date 05.11.2007

Revision: 05.11.2007

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

Further information obtainable from:

Promega UK Ltd.
Delta House
Southampton Science Park
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Tel: (44) 23 8076 0225
Fax: (44) 23 8076 7014
FREEPHONE: 0800 378994
E-mail Address: ukcustserve@promega.com
Web Address: www.promega.com/uk/

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.

3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

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Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: Klenow Fragment

(Contd. of page 1)

Components:

CAS: 56-81-5	glycerol	25-50%
EINECS: 200-289-5		

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

WEL Long-term value: 10 mg/m³**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.

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Trade name: Klenow Fragment

(Contd. of page 2)

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

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

Change in condition

Melting point/Melting range: undetermined

Boiling point/Boiling range: 100°C

Flash point: > 100°C

Ignition temperature: 400°C

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: 0.1 hPa

Density: Not determined

Solubility in / Miscibility with

Water: Not miscible or difficult to mix

pH-value at 20°C: 0

Solvent content:

Organic solvents: 50.0 %

Water: 49.0 %

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

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Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: **Klenow Fragment**

(Contd. of page 3)

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

Contact Promega Safety Department for additional 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

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).

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

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: Klenow Fragment

(Contd. of page 4)

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.

Contact:

Promega UK
Delta House, Enterprise Road
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Free Fax +44 800 181037

GB

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

Printing date 05.11.2007

Revision: 05.11.2007

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

Further information obtainable from:

Promega UK Ltd.
Delta House
Southampton Science Park
Southampton SO16 7NS
UNITED KINGDOM
Tel: (44) 23 8076 0225
Fax: (44) 23 8076 7014
FREEPHONE: 0800 378994
E-mail Address: ukcustserve@promega.com
Web Address: www.promega.com/uk/

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.

3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

Components:

74804-12-9	Magnesium ATP		Xi; R 36/37/38	5-10%
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(Contd. on page 2)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dATP, 100mM

(Contd. of page 1)

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:

CO₂, 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.

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.

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Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dATP, 100mM

(Contd. of page 2)

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

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

Change in condition

Melting point/Melting range: undetermined

Boiling point/Boiling range: 100°C

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:

Organic solvents: 0.0 %

Water: 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.

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.

(Contd. on page 4)

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

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dATP, 100mM

(Contd. of page 3)

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

Contact Promega Safety Department for additional 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**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

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.

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

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dATP, 100mM

(Contd. of page 4)

Relevant R-phrases*36/37/38 Irritating to eyes, respiratory system and skin.***Department issuing MSDS:**

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

Contact:

*Promega UK
Delta House, Enterprise Road
Chilworth Science Park
Southampton SO16 7NS
UNITED KINGDOM
Free Phone +44 800 559900
Free Fax +44 800 181037*

GB

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

Printing date 05.11.2007

Revision: 05.11.2007

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

Further information obtainable from:

Promega UK Ltd.
Delta House
Southampton Science Park
Southampton SO16 7NS
UNITED KINGDOM
Tel: (44) 23 8076 0225
Fax: (44) 23 8076 7014
FREEPHONE: 0800 378994
E-mail Address: ukcustserve@promega.com
Web Address: www.promega.com/uk/

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.

3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

Components: Void

(Contd. on page 2)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dGTP, 100mM

(Contd. of page 1)

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:

CO₂, 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.

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.

(Contd. on page 3)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dGTP, 100mM

(Contd. of page 2)

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

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

Change in condition

Melting point/Melting range: undetermined

Boiling point/Boiling range: 100°C

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:

Organic solvents: 0.0 %

Water: 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.

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.

(Contd. on page 4)

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

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dGTP, 100mM

(Contd. of page 3)

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

Contact Promega Safety Department for additional 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**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.

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)

GB

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

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dGTP, 100mM

(Contd. of page 4)

Department issuing MSDS:

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

Contact:

Promega UK
Delta House, Enterprise Road
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GB

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

Printing date 05.11.2007

Revision: 05.11.2007

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

Further information obtainable from:

Promega UK Ltd.
Delta House
Southampton Science Park
Southampton SO16 7NS
UNITED KINGDOM
Tel: (44) 23 8076 0225
Fax: (44) 23 8076 7014
FREEPHONE: 0800 378994
E-mail Address: ukcustserve@promega.com
Web Address: www.promega.com/uk/

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.

3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

Components: Void

(Contd. on page 2)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dCTP, 100mM

(Contd. of page 1)

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:

CO₂, 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.

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.

(Contd. on page 3)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dCTP, 100mM

(Contd. of page 2)

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

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

Change in condition

Melting point/Melting range: undetermined

Boiling point/Boiling range: 100°C

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:

Organic solvents: 0.0 %

Water: 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.

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.

(Contd. on page 4)

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

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dCTP, 100mM

(Contd. of page 3)

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

Contact Promega Safety Department for additional 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**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.

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)

GB

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

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dCTP, 100mM

(Contd. of page 4)

Department issuing MSDS:

Promega Corporation
Safety Department
2800 Woods Hollow Road
Madison, WI 53711
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Contact:

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GB

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

Printing date 05.11.2007

Revision: 05.11.2007

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

Further information obtainable from:

Promega UK Ltd.
Delta House
Southampton Science Park
Southampton SO16 7NS
UNITED KINGDOM
Tel: (44) 23 8076 0225
Fax: (44) 23 8076 7014
FREEPHONE: 0800 378994
E-mail Address: ukcustserve@promega.com
Web Address: www.promega.com/uk/

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.

3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

Components: Void

(Contd. on page 2)

Safety Data Sheet

according to 1907/2006/EC, Article 31

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dTTP, 100mM

(Contd. of page 1)

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:

CO₂, 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.

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.

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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

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

Change in condition

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	100°C

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:

Organic solvents:	0.0 %
Water:	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.

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.

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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

Contact Promega Safety Department for additional 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**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.

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.

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according to 1907/2006/EC, Article 31

Printing date 05.11.2007

Revision: 05.11.2007

Trade name: dTTP, 100mM

(Contd. of page 4)

Department issuing MSDS:

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

Contact:

Promega UK
Delta House, Enterprise Road
Chilworth Science Park
Southampton SO16 7NS
UNITED KINGDOM
Free Phone +44 800 559900
Free Fax +44 800 181037

GB

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

Printing date 05.11.2007

Revision: 05.11.2007

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

Further information obtainable from:

Promega UK Ltd.
Delta House
Southampton Science Park
Southampton SO16 7NS
UNITED KINGDOM
Tel: (44) 23 8076 0225
Fax: (44) 23 8076 7014
FREEPHONE: 0800 378994
E-mail Address: ukcustserve@promega.com
Web Address: www.promega.com/uk/

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.

3 Composition/information on ingredients

Chemical characterization

Description: Mixture of substances listed below with nonhazardous additions.

Components: Void

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Trade name: Positive Control Oligo(dT)15 primer

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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:

CO₂, 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.

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

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Trade name: Positive Control Oligo(dT)15 primer

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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

Form:	Fluid
Colour:	Colourless
Odour:	Characteristic

Change in condition

Melting point/Melting range:	0°C
Boiling point/Boiling range:	100°C

Flash point: Not applicable

Self-igniting: Product is not selfigniting.

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

Density at 20°C: 1 g/cm³

Solubility in / Miscibility with

Water: Fully miscible

Solvent content:

Organic solvents:	0.0 %
Water:	99.9 %

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.

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.

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Trade name: Positive Control Oligo(dT)15 primer

(Contd. of page 3)

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

Contact Promega Safety Department for additional 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

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.

Department issuing MSDS:

Promega Corporation

Safety Department

2800 Woods Hollow Road

Madison, WI 53711

U.S.A.

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Trade name: Positive Control Oligo(dT)15 primer

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Contact:

Promega UK
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