04/03/2019	Kit Components
Product code	Description
DC7020	VersaPlex <sup>TM</sup> 27PY System
Components:	
DD710	2800M Control DNA, 10ng/ul
DP107	PowerPlex 21 5X Master Mix
DK828	VersaPlex <sup>™</sup> 27PY 5X Primer Pair Mix
DG826B	VersaPlex <sup>™</sup> 27PY Allelic Ladder Mix
DW099	Water, Amplification Grade
DG500	WEN Internal Lane Standard 500



#### Printing date 04/03/2019

Reviewed on 04/03/2019

## **1 Identification**

Product identifier Trade name: <u>2800M Control DNA</u>, 10ng/ul

Article number: DD710 Application of the substance / the mixture Laboratory chemicals

Details of the supplier of the safety data sheet Manufacturer/Supplier:

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

Information department: SDS author: Regulatory.Affairs@promega.com

*Emergency telephone number:* For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### 2 Hazard(s) identification

vPvB: Not applicable.

Classification of the substance or mixture The product is not classified as hazardous according to the Globally Harmonized System (GHS). Label elements GHS label elements Void Hazard pictograms Void Signal word Void Hazard statements Void Classification system: NFPA ratings (scale 0 - 4) Health = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0= 0Fire Reactivity = 0**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Not applicable Target Organ(s): Not applicable or unknown Other hazards none known Results of PBT and vPvB assessment **PBT:** Not applicable.

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Printing date 04/03/2019

Reviewed on 04/03/2019

#### Trade name: 2800M Control DNA, 10ng/ul

(Contd. of page 1)

### 3 Composition/information on ingredients

### Chemical characterization: Mixtures

Description:

The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as a Promega Corp. trade secret.

Dangerous components: Void

Additional information: For the wording of the listed risk phrases refer to section 15.

#### 4 First-aid measures

Description of first aid measures

General information: No special measures required. After inhalation: If the patient feels unwell or is concerned, obtain medical advice. 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 the patient feels unwell or is concerned, obtain medical advice. Information for doctor: Most important symptoms and effects, both acute and delayed Dizziness None No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available.

### **5** Fire-fighting measures

Extinguishing media Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture None known No further relevant information available. Advice for firefighters No special advice Protective equipment: No special measures required.

## 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.
Environmental precautions: Dilute with plenty of water.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Reference to other sections
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 13 for disposal information.

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Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: 2800M Control DNA, 10ng/ul

(Contd. of page 2)

### 7 Handling and storage

#### Handling:

**Precautions for safe handling** No special measures required. **Information about protection against explosions and fires:** The product is not flammable.

Conditions for safe storage, including any incompatibilities

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.

Specific end use(s) No further relevant information available.

### 8 Exposure controls/personal protection

#### **Control parameters**

Components 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 that were valid during the creation were used as basis.

#### **Exposure** controls

Personal protective equipment: General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed. Breathing equipment: Not required. Protection of hands: Not required. 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

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. *Eye protection:* Not required.

Information on basic physical and General Information	chemical properties	
Appearance:		
Form:	Fluid	
Color:	Colorless	
Odor:	Not determined	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	8	
Change in condition		
Melting point/Melting range:	0 °C (32 °F)	
Boiling point/Boiling range:	100 °C (212 °F)	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	

Printing date 04/03/2019

Reviewed on 04/03/2019

### Trade name: 2800M Control DNA, 10ng/ul

		(Contd. of page 3
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not determined.	
Density:	Not determined.	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octanol/wa	ter): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Water:	99.9 %	
VOC content:	0.00 %	
Solids content:	0.9 %	
Other information	No further relevant information available.	

## **10 Stability and reactivity**

Reactivity No further relevant information available. Chemical stability Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications. Possibility of hazardous reactions No dangerous reactions known. Conditions to avoid No further relevant information available. Incompatible materials: No further relevant information available. Hazardous decomposition products: No dangerous decomposition products known.

## **11 Toxicological information**

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification: No data available 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 internally approved calculation methods for preparations:

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

### Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

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US –

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: 2800M Control DNA, 10ng/ul

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NTP (National Toxicology Program)

None of the ingredients are listed.

### **OSHA-Ca** (Occupational Safety & Health Administration)

None of the ingredients are listed.

# **12 Ecological information**

### Toxicity

Aquatic toxicity: Not harmful to the aquatic environment Persistence and degradability *Not available* No further relevant information available. Behavior in environmental systems: **Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. **Ecotoxical effects: Remark:** Not available Additional ecological information: General notes: Generally not hazardous for water. Results of PBT and vPvB assessment *PBT:* Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available.

## **13 Disposal considerations**

### Waste treatment methods

**Recommendation:** 

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

### Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations. **Recommended cleansing agent:** Water, if necessary with cleansing agents.

UN-Number DOT, ADR, ADN, IMDG, IATA	Not hazardous for transportation Void	
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	None Void	
Transport hazard class(es)	None	
DOT, ADR, ADN, IMDG, IATA		
Class	Void	
Packing group	None	

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: 2800M Control DNA, 10ng/ul

		(Contd. of page 5)
DOT, ADR, IMDG, IATA	Void	
Environmental hazards: Marine pollutant:	No	
Special precautions for user	Not applicable.	
Transport in bulk according to Anne MARPOL73/78 and the IBC Code	<b>x II of</b> Not applicable.	
UN "Model Regulation":	Void	

# **15 Regulatory information**

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

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act) Inventory:

All ingredients are listed.

**Proposition 65** 

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

### Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients are listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

GHS label elements Void Signal word Void Hazard statements Void

National regulations:

*Water hazard class:* Generally not hazardous for water. *Chemical safety assessment:* A Chemical Safety Assessment has not been carried out.

(Contd. on page 7)

Printing date 04/03/2019

Reviewed on 04/03/2019

### Trade name: 2800M Control DNA, 10ng/ul

(Contd. of page 6)

#### **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 SDS:** Promega Corporation Environmental Health and Safety Department 2800 Woods Hollow Road Madison. WI Ph:(608)274-4330 Date of preparation / last revision 04/03/2019 / -Abbreviations and acronyms: RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: Internation Civil Aviation Organization ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit \* Data compared to the previous version altered.



#### Printing date 04/03/2019

Reviewed on 04/03/2019

## **1 Identification**

Product identifier Trade name: <u>PowerPlex 21 5X Master Mix</u>

Article number: DP107 Application of the substance / the mixture Laboratory chemicals

Details of the supplier of the safety data sheet Manufacturer/Supplier:

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

Information department: SDS author: Regulatory.Affairs@promega.com

*Emergency telephone number:* For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### 2 Hazard(s) identification

Classification of the substance or mixture The product is not classified as hazardous according to the Globally Harmonized System (GHS). Label elements GHS label elements Void Hazard pictograms Void Signal word Void Hazard statements Void Classification system: NFPA ratings (scale 0 - 4) Health = 0Fire = 1*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0Fire = 1 Reactivity = 0**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Not applicable Target Organ(s): Not applicable or unknown **Other hazards** Results of PBT and vPvB assessment **PBT:** Not applicable. vPvB: Not applicable.

(Contd. on page 2)

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Printing date 04/03/2019

Reviewed on 04/03/2019

### Trade name: PowerPlex 21 5X Master Mix

(Contd. of page 1)

### 3 Composition/information on ingredients

### Chemical characterization: Mixtures

### Description:

The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as a Promega Corp. trade secret.

<b>Dangerous</b>	components:	
56-81-5	glycerol	15-20%
77-86-1	2-Amino-2-(hydroxymethyl)-1,3-propanediol	<2.5%
61790-82-7	Ethoxylated Alkyl Amines	<2%
Additional i	nformation: For the wording of the listed risk phrases refer to section 15.	

### 4 First-aid measures

### Description of first aid measures

General information: No special measures required.

*After inhalation: If the patient feels unwell or is concerned, obtain medical advice.* 

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 the patient feels unwell or is concerned, obtain medical advice.

Information for doctor:

Most important symptoms and effects, both acute and delayed

Dizziness None

None

No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

### **5** Fire-fighting measures

Extinguishing media

Suitable extinguishing agents:

CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture

None known

No further relevant information available.

Advice for firefighters No special advice

Protective equipment: No special measures required.

## 6 Accidental release measures

 Personal precautions, protective equipment and emergency procedures Not required.

 Environmental precautions:

 Dilute with plenty of water.

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

 Methods and material for containment and cleaning up:

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

 Reference to other sections

 No dangerous substances are released.

(Contd. on page 3)

US

Printing date 04/03/2019

Reviewed on 04/03/2019

### Trade name: PowerPlex 21 5X Master Mix

See Section 7 for information on safe handling. See Section 13 for disposal information.

#### 7 Handling and storage

#### Handling:

**Precautions for safe handling** No special measures required. **Information about protection against explosions and fires:** No special measures required.

Conditions for safe storage, including any incompatibilities 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. Specific end use(s) No further relevant information available.

## 8 Exposure controls/personal protection

#### **Control parameters**

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

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

### 56-81-5 glycerol

PEL Long-term value: 15\* 5\*\* mg/m<sup>3</sup>

mist; \*total dust \*\*respirable fraction

TLV TLV withdrawn-insufficient data human occup. exp.

Additional information: The lists that were valid during the creation were used as basis.

#### Exposure controls

Personal protective equipment:

General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Breathing equipment: Not required.

Protection of hands: Not required.

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. **Eye protection:** Not required.

### 9 Physical and chemical properties

Information on basic physic	cal and chemical properties
General Information	
Appearance:	
Form:	Fluid
Color:	Colorless
Odor:	Not determined
<b>Odor threshold:</b>	Not determined.

(Contd. on page 4)

US

(Contd. of page 2)

Printing date 04/03/2019

Reviewed on 04/03/2019

### Trade name: PowerPlex 21 5X Master Mix

		(Contd. of page 3)
<i>pH-value at 20 °C (68 °F):</i>	8.5	
Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point:	Undetermined. 100 °C (212 °F) > 100 °C (>212 °F)	
Flammability (solid, gaseous):	Not applicable.	
Ignition temperature: Decomposition temperature:	400 °C (752 °F) Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion: Explosion limits:	Product does not present an explosion hazard.	
Lower:	0.9 Vol %	
Upper: Vapor pressure at 20 °C (68 °F):	0.0 Vol % 0.1 hPa (0.1 mm Hg)	

Density at 20 °C (68 °F):	1.107 g/cm <sup>3</sup> (9.23792 lbs/gal)	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octanol/w	vater): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Organic solvents:	16.2 %	
Water:	58.9 %	
VOC content:	0.00 %	
Solids content:	9.1 %	
Other information	No further relevant information available.	

# 10 Stability and reactivity

Reactivity No further relevant information available. Chemical stability Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications. Possibility of hazardous reactions No dangerous reactions known. Conditions to avoid No further relevant information available. Incompatible materials: No further relevant information available. Hazardous decomposition products: No dangerous decomposition products known.

## **11 Toxicological information**

Information on toxicological effects Acute toxicity: LD/LC50 values that are relevant for classification: No data available Primary irritant effect: on the skin: No irritant effect.

(Contd. on page 5)

US

Printing date 04/03/2019

Reviewed on 04/03/2019

#### Trade name: PowerPlex 21 5X Master Mix

(Contd. of page 4)

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

The product is not subject to classification according to internally approved calculation methods for preparations:

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

#### Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

NTP (National Toxicology Program)

None of the ingredients are listed.

### **OSHA-Ca** (Occupational Safety & Health Administration)

None of the ingredients are listed.

# **12 Ecological information**

Toxicity

Aquatic toxicity: Not harmful to the aquatic environment Persistence and degradability *Not available* No further relevant information available. **Behavior in environmental systems: Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. **Ecotoxical effects: Remark:** Not available Additional ecological information: General notes: Water hazard class 1 (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. Results of PBT and vPvB assessment *PBT:* Not applicable. **vPvB:** Not applicable. Other adverse effects No further relevant information available.

## **13 Disposal considerations**

### Waste treatment methods

**Recommendation:** 

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

#### Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

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US –

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: PowerPlex 21 5X Master Mix

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

#### **14 Transport information UN-Number** Not hazardous for transportation DOT, ADR, ADN, IMDG, IATA Void UN proper shipping name None DOT, ADR, ADN, IMDG, IATA Void Transport hazard class(es) None DOT, ADR, ADN, IMDG, IATA Class Void Packing group None DOT, ADR, IMDG, IATA Void Environmental hazards: Marine pollutant: No Not applicable. Special precautions for user Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code Not applicable. UN "Model Regulation": Void

# **15 Regulatory information**

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

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

7783-20-2 ammonium sulphate

TSCA (Toxic Substances Control Act) Inventory:

All ingredients are listed.

TSCA new (21st Century Act) (Substances not listed)

61790-82-7 Ethoxylated Alkyl Amines

**Proposition 65** 

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

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U

(Contd. of page 5)

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: PowerPlex 21 5X Master Mix

(Contd. of page 6)

Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients are listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

GHS label elements Void Signal word Void Hazard statements Void

National regulations:

*Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water. Chemical safety assessment: A Chemical Safety Assessment has not been carried out.* 

### **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 SDS:

Promega Corporation Environmental Health and Safety Department 2800 Woods Hollow Road Madison, WI Ph:(608)274-4330 Date of preparation / last revision 04/03/2019 / -Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit \* Data compared to the previous version altered.



#### Printing date 04/03/2019

#### Reviewed on 04/03/2019

## **1 Identification**

Product identifier Trade name: <u>VersaPlex™ 27PY 5X Primer Pair Mix</u>

Article number: DK828 Application of the substance / the mixture Laboratory chemicals

Details of the supplier of the safety data sheet Manufacturer/Supplier:

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

Information department: SDS author: Regulatory.Affairs@promega.com

*Emergency telephone number:* For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### 2 Hazard(s) identification

Classification of the substance or mixture The product is not classified as hazardous according to the Globally Harmonized System (GHS). Label elements GHS label elements Void Hazard pictograms Void Signal word Void Hazard statements Void Classification system: NFPA ratings (scale 0 - 4) Health = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0= 0Fire Reactivity = 0**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Not applicable Target Organ(s): Not applicable or unknown

*Other hazards Results of PBT and vPvB assessment PBT:* Not applicable. *vPvB:* Not applicable.

(Contd. on page 2)

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: VersaPlex<sup>TM</sup> 27PY 5X Primer Pair Mix

(Contd. of page 1)

### 3 Composition/information on ingredients

### Chemical characterization: Mixtures

Description:

The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as a Promega Corp. trade secret.

Dangerous components: Void

Additional information: For the wording of the listed risk phrases refer to section 15.

### 4 First-aid measures

Description of first aid measures

General information: No special measures required. After inhalation: If the patient feels unwell or is concerned, obtain medical advice. 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 the patient feels unwell or is concerned, obtain medical advice. Information for doctor: Most important symptoms and effects, both acute and delayed Dizziness None No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available.

## **5** Fire-fighting measures

Extinguishing media Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture None known No further relevant information available. Advice for firefighters No special advice Protective equipment: No special measures required.

## 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.
Environmental precautions: Dilute with plenty of water.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Reference to other sections
See Section 7 for information on safe handling.
See Section 13 for disposal information.

(Contd. on page 3)

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: VersaPlex<sup>TM</sup> 27PY 5X Primer Pair Mix

(Contd. of page 2)

### 7 Handling and storage

#### Handling:

**Precautions for safe handling** No special measures required. **Information about protection against explosions and fires:** The product is not flammable.

Conditions for safe storage, including any incompatibilities

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.

Specific end use(s) No further relevant information available.

### 8 Exposure controls/personal protection

#### **Control parameters**

Components 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 that were valid during the creation were used as basis.

### **Exposure** controls

Personal protective equipment: General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed. Breathing equipment: Not required. Protection of hands: Not required. 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. **Exercise:** Not required.

Information on basic physical and	chemical properties	
General Information		
Appearance:		
Form:	Fluid	
Color:	Colorless	
Odor:	Not determined	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	8	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	100 °C (212 °F)	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	

Printing date 04/03/2019

Reviewed on 04/03/2019

### Trade name: VersaPlex<sup>TM</sup> 27PY 5X Primer Pair Mix

		(Contd. of page 2
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not determined.	
Density:	Not determined.	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octanol	Vwater): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Water:	99.8 %	
VOC content:	0.00 %	
Solids content:	0.5 %	
Other information	No further relevant information available.	

## **10 Stability and reactivity**

Reactivity No further relevant information available. Chemical stability Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications. Possibility of hazardous reactions No dangerous reactions known. Conditions to avoid No further relevant information available. Incompatible materials: No further relevant information available. Hazardous decomposition products: No dangerous decomposition products known.

## **11 Toxicological information**

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification: No data available 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 internally approved calculation methods for preparations:

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

### Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

(Contd. on page 5)

US –

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: VersaPlex<sup>TM</sup> 27PY 5X Primer Pair Mix

(Contd. of page 4)

NTP (National Toxicology Program)

None of the ingredients are listed.

**OSHA-Ca** (Occupational Safety & Health Administration)

None of the ingredients are listed.

# **12 Ecological information**

### Toxicity

Aquatic toxicity: Not harmful to the aquatic environment Persistence and degradability *Not available* No further relevant information available. Behavior in environmental systems: **Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. **Ecotoxical effects: Remark:** Not available Additional ecological information: General notes: Generally not hazardous for water. Results of PBT and vPvB assessment *PBT:* Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available.

## **13 Disposal considerations**

### Waste treatment methods

**Recommendation:** 

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

### Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations. **Recommended cleansing agent:** Water, if necessary with cleansing agents.

UN-Number DOT, ADR, ADN, IMDG, IATA	Not hazardous for transportation Void	
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	None Void	
Transport hazard class(es)	None	
DOT, ADR, ADN, IMDG, IATA		
Class	Void	
Packing group	None	

Printing date 04/03/2019

Reviewed on 04/03/2019

### Trade name: VersaPlex<sup>TM</sup> 27PY 5X Primer Pair Mix

		(Contd. of page 5)
DOT, ADR, IMDG, IATA	Void	
Environmental hazards: Marine pollutant:	No	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex MARPOL 73/78 and the IBC Code	<b>II of</b> Not applicable.	
UN "Model Regulation":	Void	

# **15 Regulatory information**

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

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act) Inventory:

All ingredients are listed.

**Proposition 65** 

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

### Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients are listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

GHS label elements Void Signal word Void Hazard statements Void

National regulations:

*Water hazard class:* Generally not hazardous for water. *Chemical safety assessment:* A Chemical Safety Assessment has not been carried out.

(Contd. on page 7)

Printing date 04/03/2019

Reviewed on 04/03/2019

### Trade name: VersaPlex<sup>TM</sup> 27PY 5X Primer Pair Mix

(Contd. of page 6)

### **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 SDS:

Promega Corporation Environmental Health and Safety Department 2800 Woods Hollow Road Madison. WI Ph:(608)274-4330 Date of preparation / last revision 04/03/2019 / -Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit \* Data compared to the previous version altered.



#### Printing date 04/03/2019

Reviewed on 04/03/2019

## **1** Identification

Product identifier Trade name: VersaPlex<sup>™</sup> 27PY Allelic Ladder Mix

Article number: DG826B Application of the substance / the mixture Laboratory chemicals

Details of the supplier of the safety data sheet Manufacturer/Supplier:

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

Information department: SDS author: Regulatory.Affairs@promega.com

*Emergency telephone number:* For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

## 2 Hazard(s) identification

Classification of the substance or mixture The product is not classified as hazardous according to the Globally Harmonized System (GHS). Label elements GHS label elements Void

Hazard pictograms Void Signal word Void Hazard statements Void Classification system: NFPA ratings (scale 0 - 4) Health = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0= 0Fire Reactivity = 0**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Not applicable Target Organ(s): Not applicable or unknown **Other hazards** Results of PBT and vPvB assessment **PBT:** Not applicable. vPvB: Not applicable.

(Contd. on page 2)

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Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: VersaPlex<sup>TM</sup> 27PY Allelic Ladder Mix

(Contd. of page 1)

### 3 Composition/information on ingredients

## Chemical characterization: Mixtures

Description:

The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as a Promega Corp. trade secret.

Dangerous components: Void

### 4 First-aid measures

Description of first aid measures

General information: No special measures required. After inhalation: If the patient feels unwell or is concerned, obtain medical advice. 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 the patient feels unwell or is concerned, obtain medical advice. Information for doctor: Most important symptoms and effects, both acute and delayed Dizziness None No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available.

## **5** Fire-fighting measures

Extinguishing media Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture None known No further relevant information available. Advice for firefighters No special advice Protective equipment: No special measures required.

### 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.
Environmental precautions: Dilute with plenty of water.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Reference to other sections
See Section 7 for information on safe handling.
See Section 13 for disposal information.

(Contd. on page 3)

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: VersaPlex<sup>TM</sup> 27PY Allelic Ladder Mix

(Contd. of page 2)

### 7 Handling and storage

#### Handling:

**Precautions for safe handling** No special measures required. **Information about protection against explosions and fires:** The product is not flammable.

Conditions for safe storage, including any incompatibilities

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.

Specific end use(s) No further relevant information available.

### 8 Exposure controls/personal protection

**Control parameters** 

Components 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 that were valid during the creation were used as basis.

### Exposure controls

Personal protective equipment: General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed. Breathing equipment: Not required. Protection of hands: Not required. 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.

*Eye protection:* Not required.

Information on basic physical and General Information	chemical properties	
Appearance:		
Form:	Fluid	
Color:	Colorless	
Odor:	Odorless	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	3-10	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	Undetermined.	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	

Printing date 04/03/2019

Reviewed on 04/03/2019

### Trade name: VersaPlex<sup>TM</sup> 27PY Allelic Ladder Mix

		(Contd. of page
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not determined.	
Density:	Not determined.	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octanol/wa	tter): Not determined.	
Viscosity:		
Dynamic at 20 °C (68 °F):	0.0952 mPas	
Kinematic:	Not determined.	
Organic solvents:	0.2 %	
Water:	98.8 %	
VOC content:	0.00 %	
Solids content:	1.3 %	
Other information	No further relevant information available.	

## 10 Stability and reactivity

Reactivity No further relevant information available. Chemical stability Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications. Possibility of hazardous reactions No dangerous reactions known. Conditions to avoid No further relevant information available. Incompatible materials: No further relevant information available. Hazardous decomposition products: No dangerous decomposition products known.

## **11 Toxicological information**

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification: No data available

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 internally approved calculation methods for preparations:

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

(Contd. on page 5)

US

Printing date 04/03/2019

Reviewed on 04/03/2019

### Trade name: VersaPlex<sup>TM</sup> 27PY Allelic Ladder Mix

(Contd. of page 4)

Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

*NTP (National Toxicology Program) None of the ingredients are listed.* 

**OSHA-Ca** (Occupational Safety & Health Administration)

None of the ingredients are listed.

## **12 Ecological information**

#### **Toxicity**

Aquatic toxicity: Not harmful to the aquatic environment Persistence and degradability *Not available* No further relevant information available. **Behavior in environmental systems: Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. Ecotoxical effects: **Remark:** Not available Additional ecological information: General notes: Generally not hazardous for water. **Results of PBT and vPvB assessment PBT:** Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available.

## **13 Disposal considerations**

### Waste treatment methods

**Recommendation:** 

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

#### Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations. **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## **14 Transport information**

UN-Number DOT, ADR, ADN, IMDG, IATA	Not hazardous for transportation Void	
UN proper shipping name	None	
DOT, ADR, ADN, IMDG, IATA	Void	
	(Contd. on p	age 6)

\_\_\_\_\_US

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: VersaPlex<sup>TM</sup> 27PY Allelic Ladder Mix

		(Contd. of page
Transport hazard class(es)	None	
DOT, ADR, ADN, IMDG, IATA		
Class	Void	
Packing group	None	
DOT, ADR, ÎMDG, IATA	Void	
Environmental hazards:	Not applicable.	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex	II of	
MARPOL73/78 and the IBC Code	Not applicable.	
UN "Model Regulation":	Void	

## **15 Regulatory information**

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

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

7783-20-2 ammonium sulphate

TSCA (Toxic Substances Control Act) Inventory:

All ingredients are listed.

Proposition 65

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

### Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients are listed.

### NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

GHS label elements Void Signal word Void Hazard statements Void

National regulations:

Water hazard class: Generally not hazardous for water.

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: VersaPlex<sup>TM</sup> 27PY Allelic Ladder Mix

(Contd. of page 6)

Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### **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 SDS:

Promega Corporation Environmental Health and Safety Department 2800 Woods Hollow Road Madison, WI Ph:(608)274-4330 Date of preparation / last revision 04/03/2019 / -Abbreviations and acronyms: ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit \* Data compared to the previous version altered.



#### Printing date 04/03/2019

Reviewed on 04/03/2019

## 1 Identification

Product identifier Trade name: Water, Amplification Grade

Article number: DW099 CAS Number: 7732-18-5 EC number: 231-791-2 Application of the substance / the mixture Laboratory chemicals

Details of the supplier of the safety data sheet Manufacturer/Supplier:

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

Information department: SDS author: Regulatory.Affairs@promega.com Emergency telephone number: For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

## 2 Hazard(s) identification

*Classification of the substance or mixture The substance is not classified as hazardous according to the Globally Harmonized System (GHS).* 

Label elements GHS label elements Void Hazard pictograms Void Signal word Void Hazard statements Void Classification system: NFPA ratings (scale 0 - 4) Health = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0= 0Fire *Reactivity* = 0OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Not applicable Target Organ(s): Not applicable or unknown Other hazards none known Results of PBT and vPvB assessment **PBT:** Not applicable.

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Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: Water, Amplification Grade

vPvB: Not applicable.

(Contd. of page 1)

## 3 Composition/information on ingredients

Chemical characterization: Substances CAS No. Description 7732-18-5 water Identification number(s) EC number: 231-791-2

### 4 First-aid measures

Description of first aid measures General information: No special measures required. After inhalation: If the patient feels unwell or is concerned, obtain medical advice. 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 the patient feels unwell or is concerned, obtain medical advice. Information for doctor: Most important symptoms and effects, both acute and delayed Dizziness None No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available.

### **5** Fire-fighting measures

Extinguishing media Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture None known No further relevant information available. Advice for firefighters No special advice Protective equipment: No special measures required.

## 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.
Environmental precautions: Dilute with plenty of water.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Reference to other sections
No dangerous substances are released.
See Section 7 for information on safe handling.
See Section 13 for disposal information.

(Contd. on page 3)

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: Water, Amplification Grade

(Contd. of page 2)

### 7 Handling and storage

#### Handling:

**Precautions for safe handling** No special measures required. **Information about protection against explosions and fires:** The product is not flammable.

Conditions for safe storage, including any incompatibilities

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. **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

**Control parameters** 

*Components with limit values that require monitoring at the workplace: Not required. Additional information: The lists that were valid during the creation were used as basis.* 

Exposure controls Personal protective equipment: General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed. Breathing equipment: Not required. Protection of hands: Not required. 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. Eye protection: Not required.

### 9 Physical and chemical properties

Information on basic physical and	chemical properties	
General Information Appearance:		
Appearance. Form:	Fluid	
Color:	Colorless	
Odor:	Odorless	
Odor threshold:	Not determined.	
Change in condition		
Melting point/Melting range:	0 °C (32 °F)	
Boiling point/Boiling range:	100 °C (212 °F)	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	
Auto igniting:	Not determined.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
		(Contd. on page 4

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: Water, Amplification Grade

		(Contd. of page 2
Vapor pressure:	Not determined.	
Density at 20 °C (68 °F):	1 g/cm <sup>3</sup> (8.345 lbs/gal)	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octanol/w	ater): Not determined.	
Viscosity:	, ,	
Dynamic at 20 °C (68 °F):	0.0952 mPas	
Kinematic:	Not determined.	
Water:	100.0 %	
VOC content:	0.00 %	
Other information	No further relevant information available.	

# **10 Stability and reactivity**

*Reactivity* No further relevant information available. *Chemical stability* 

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

Possibility of hazardous reactions No dangerous reactions known.

Conditions to avoid No further relevant information available.

Incompatible materials: No further relevant information available.

Hazardous decomposition products: No dangerous decomposition products known.

# **11 Toxicological information**

Information on toxicological effects Acute toxicity: LD/LC50 values that are relevant for classification: No data available Primary irritant effect: on the skin: No irritant effect. on the eye: Irritating effect. Sensitization: No sensitizing effects known. Additional toxicological information: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us. The substance is not subject to classification.

#### Carcinogenic categories

IARC (International Agency for Research on Cancer)

Substance is not listed.

NTP (National Toxicology Program)

Substance is not listed.

### **OSHA-Ca** (Occupational Safety & Health Administration)

Substance is not listed.

(Contd. on page 5)

Printing date 04/03/2019

Reviewed on 04/03/2019

### Trade name: Water, Amplification Grade

(Contd. of page 4)

## **12 Ecological information**

#### Toxicity

Aquatic toxicity: Not harmful to the aquatic environment Persistence and degradability *Not available* No further relevant information available. **Behavior in environmental systems: Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. **Ecotoxical effects:** *Remark:* Not available Additional ecological information: General notes: Generally not hazardous for water. Results of PBT and vPvB assessment **PBT:** Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available.

## **13 Disposal considerations**

### Waste treatment methods

### **Recommendation:**

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

## Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations. **Recommended cleansing agent:** Water, if necessary with cleansing agents.

### 14 Transport information

11 ITalisport information		
UN-Number DOT, ADR, ADN, IMDG, IATA	Not hazardous for transportation Void	
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	None Void	
Transport hazard class(es)	None	
DOT, ADR, ADN, IMDG, IATA Class	Void	
Packing group DOT, ADR, IMDG, IATA	None Void	
Environmental hazards: Marine pollutant:	No	
Special precautions for user	Not applicable.	
		(Contd. on page 6)

Printing date 04/03/2019

Reviewed on 04/03/2019

(Contd. of page 5)

Trade name: Water, Amplification Grade

Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

UN "Model Regulation":

# **15 Regulatory information**

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

Void

Section 355 (extremely hazardous substances):

Substance is not listed.

Section 313 (Specific toxic chemical listings):

Substance is not listed.

TSCA (Toxic Substances Control Act) Inventory:

Substance is listed.

**Proposition 65** 

Chemicals known to cause cancer:

Substance is not listed.

Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

Chemicals known to cause developmental toxicity:

Substance is not listed.

Cancerogenity categories

EPA (Environmental Protection Agency)

Substance is not listed.

TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed. GHS label elements Void Signal word Void Hazard statements Void

National regulations:

*Water hazard class:* Generally not hazardous for water. *Chemical safety assessment:* A Chemical Safety Assessment has not been carried out.

# **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 SDS:** Promega Corporation

Environmental Health and Safety Department

(Contd. on page 7)

US

Printing date 04/03/2019

Reviewed on 04/03/2019

Trade name: Water, Amplification Grade

(Contd. of page 6)	
2800 Woods Hollow Road	
Madison, WI	
Ph:(608)274-4330	
Date of preparation / last revision 04/03/2019 / -	
Abbreviations and acronyms:	
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International	
Carriage of Dangerous Goods by Road)	
IMDG: International Maritime Code for Dangerous Goods	
DOT: US Department of Transportation	
IATA: International Air Transport Association	
ACGIH: American Conference of Governmental Industrial Hygienists	
EINECS: European Inventory of Existing Commercial Chemical Substances	
CAS: Chemical Abstracts Service (division of the American Chemical Society)	
NFPA: National Fire Protection Association (USA)	
HMIS: Hazardous Materials Identification System (USA)	
VOC: Volatile Organic Compounds (USA, EU)	
LC50: Lethal concentration, 50 percent	
LD50: Lethal dose, 50 percent	
PBT: Persistent, Bioaccumulative and Toxic	
vPvB: very Persistent and very Bioaccumulative	
NIOSH: National Institute for Occupational Safety	
OSHA: Occupational Safety & Health	
TLV: Threshold Limit Value	
PEL: Permissible Exposure Limit	
REL: Recommended Exposure Limit	
* Data compared to the previous version altered.	



#### Printing date 04/03/2019

Reviewed on 04/03/2019

## **1 Identification**

Product identifier Trade name: <u>WEN Internal Lane Standard 500</u>

Article number: DG500 Application of the substance / the mixture Laboratory chemicals

Details of the supplier of the safety data sheet Manufacturer/Supplier:

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

Information department: SDS author: Regulatory.Affairs@promega.com

*Emergency telephone number:* For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300 Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

### 2 Hazard(s) identification

Classification of the substance or mixture The product is not classified as hazardous according to the Globally Harmonized System (GHS). Label elements GHS label elements Void Hazard pictograms Void Signal word Void Hazard statements Void Classification system: NFPA ratings (scale 0 - 4) Health = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0= 0Fire Reactivity = 0**OSHA Hazard Overview (Criteria according to 29CFR1910.1200):** Not applicable Target Organ(s): Not applicable or unknown **Other hazards** 

*Results of PBT and vPvB assessment PBT:* Not applicable. *vPvB:* Not applicable.

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### 3 Composition/information on ingredients

### Chemical characterization: Mixtures

Description:

The product is a mixture of the hazardous substances listed below along with unlisted nonhazardous substances. The exact concentration percentages of the hazardous substances may be withheld as a Promega Corp. trade secret.

Dangerous components: Void

Additional information: For the wording of the listed risk phrases refer to section 15.

### 4 First-aid measures

Description of first aid measures

General information: No special measures required. After inhalation: If the patient feels unwell or is concerned, obtain medical advice. 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 the patient feels unwell or is concerned, obtain medical advice. Information for doctor: Most important symptoms and effects, both acute and delayed Dizziness None No further relevant information available. Indication of any immediate medical attention and special treatment needed No further relevant information available.

## 5 Fire-fighting measures

Extinguishing media Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Special hazards arising from the substance or mixture None known No further relevant information available. Advice for firefighters No special advice Protective equipment: No special measures required.

## 6 Accidental release measures

Personal precautions, protective equipment and emergency procedures Not required.
Environmental precautions: Dilute with plenty of water.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Reference to other sections
See Section 7 for information on safe handling.
See Section 13 for disposal information.

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### 7 Handling and storage

#### Handling:

**Precautions for safe handling** No special measures required. **Information about protection against explosions and fires:** The product is not flammable.

Conditions for safe storage, including any incompatibilities

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.

Specific end use(s) No further relevant information available.

### 8 Exposure controls/personal protection

**Control parameters** 

Components 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 that were valid during the creation were used as basis.

#### **Exposure** controls

Personal protective equipment: General protective and hygienic measures: The usual precautionary measures for handling chemicals should be followed. Breathing equipment: Not required. Protection of hands: Not required. 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.

*Éye protection:* Not required.

Information on basic physical and	chemical properties	
General Information		
Appearance:		
Form:	Fluid	
Color:	Colorless	
Odor:	Not determined	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	8	
Change in condition		
Melting point/Melting range:	Undetermined.	
Boiling point/Boiling range:	100 °C (212 °F)	
Flash point:	Not applicable.	
Flammability (solid, gaseous):	Not applicable.	
Decomposition temperature:	Not determined.	

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Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:	· ·	
Lower:	Not determined.	
Upper:	Not determined.	
Vapor pressure:	Not determined.	
Density:	Not determined.	
Relative density	Not determined.	
Vapor density	Not determined.	
Evaporation rate	Not determined.	
Solubility in / Miscibility with		
Water:	Fully miscible.	
Partition coefficient (n-octanol/w	vater): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Organic solvents:	0.3 %	
Water:	99.4 %	
VOC content:	0.00 %	
Solids content:	0.5 %	
Other information	No further relevant information available.	

## **10 Stability and reactivity**

Reactivity No further relevant information available. Chemical stability Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications. Possibility of hazardous reactions No dangerous reactions known. Conditions to avoid No further relevant information available. Incompatible materials: No further relevant information available. Hazardous decomposition products: No dangerous decomposition products known.

# **11 Toxicological information**

Information on toxicological effects

Acute toxicity:

LD/LC50 values that are relevant for classification: No data available

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 internally approved calculation methods for preparations:

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

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Carcinogenic categories

IARC (International Agency for Research on Cancer)

None of the ingredients are listed.

*NTP (National Toxicology Program) None of the ingredients are listed.* 

**OSHA-Ca** (Occupational Safety & Health Administration)

None of the ingredients are listed.

## **12 Ecological information**

#### **Toxicity**

Aquatic toxicity: Not harmful to the aquatic environment Persistence and degradability *Not available* No further relevant information available. **Behavior in environmental systems: Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. Ecotoxical effects: **Remark:** Not available Additional ecological information: General notes: Generally not hazardous for water. **Results of PBT and vPvB assessment PBT:** Not applicable. vPvB: Not applicable. Other adverse effects No further relevant information available.

# **13 Disposal considerations**

### Waste treatment methods

**Recommendation:** 

Disposal should be in accordance with applicable regional, national and local laws and regulations. Refer to Section 7: Handling and Storage and Section 8: Exposure Control/Personal Protection for additional handling information and protection of employees.

#### Uncleaned packagings:

**Recommendation:** Disposal must be made according to official regulations. **Recommended cleansing agent:** Water, if necessary with cleansing agents.

## **14 Transport information**

UN-Number DOT, ADR, ADN, IMDG, IATA	Not hazardous for transportation Void	
UN proper shipping name	None	
DOT, ADR, ADN, IMDG, IATA	Void	
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Transport hazard class(es)	None	
DOT, ADR, ADN, IMDG, IATA		
Class	Void	
Packing group	None	
DOT, ADR, IMDG, IATA	Void	
Environmental hazards:		
Marine pollutant:	No	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex L	I of	
MARPOL73/78 and the IBC Code	Not applicable.	
UN "Model Regulation":	Void	

## **15 Regulatory information**

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

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

TSCA (Toxic Substances Control Act) Inventory:

All ingredients are listed.

**Proposition 65** 

Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

#### Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)

None of the ingredients are listed.

NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients are listed.

GHS label elements Void Signal word Void Hazard statements Void

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### National regulations:

*Water hazard class:* Generally not hazardous for water. *Chemical safety assessment:* A Chemical Safety Assessment has not been carried out.

### **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 SDS:

Promega Corporation Environmental Health and Safety Department 2800 Woods Hollow Road Madison, WI Ph:(608)274-4330 Date of preparation / last revision 04/03/2019 / -

### Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transportation IATA: International Air Transport Association ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

\* Data compared to the previous version altered.