12/17/2020	Kit Components	
Product code	Description	
L5901	In-vitro Translation Extracts	
Components:		
L411	TNT® Wheat Germ Extract	
L554	TNT® T7 PCR Quick Master Mix	
L520	TNT® T7 Quick Master Mix	
L114	T7-S30 Extract for Circular DNA	



## Printing date 12/17/2020

Reviewed on 12/15/2020

1 Identification		
Product identifier		
Trade name: TNT®	Wheat Germ Extract	

Article number: L411 Application of the substance / the mixture For Laboratory Use

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: ChemicalRegulatory@promega.com Promega Corporation 2800 Woods Hollow Road Madison, WI 53711 U.S.A. 1-800-356-9526 or (608)-274-4330 **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 Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable Classification system: NFPA ratings (scale 0 - 4) Health = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0Fire = 0*Reactivity* = 0OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Not applicable Target Organ(s): Not applicable or unknown

Page 1/7

(Contd. on page 2)

US

Printing date 12/17/2020

Reviewed on 12/15/2020

## Trade name: TNT® Wheat Germ Extract

(Contd. of page 1)

1-5%

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

## 3 Composition/information on ingredients

## Chemical characterization: Mixtures

Description:

The product is made up of a mixture of non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

Dangerous components:

56-81-5 glycerol

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 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).

(Contd. on page 3)

US

(Contd. of page 2)

# Safety Data Sheet acc. to OSHA HCS

Printing date 12/17/2020

Reviewed on 12/15/2020

## Trade name: TNT® Wheat Germ Extract

Reference to other sections

No dangerous substances are released. 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:** 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:

## 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 physical and chemical propertiesGeneral InformationAppearance:Form:FluidColor:ColorlessOdor:Not determinedOdor threshold:Not determined.

(Contd. on page 4)

US

Printing date 12/17/2020

## Trade name: TNT® Wheat Germ Extract

Reviewea	l on	12/	15/	2020
----------	------	-----	-----	------

		(Contd. of page
pH-value at 20 °C (68 °F):	7.4	
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.	
<b>Decomposition temperature:</b>	Not determined.	
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/wate	er): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Organic solvents:	2.5 %	
Water:	94.7 %	
VOC content:	0.00 %	
Solids content:	1.9 %	
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: No irritating effect.

(Contd. on page 5)

US

Printing date 12/17/2020

Reviewed on 12/15/2020

## Trade name: TNT® Wheat Germ Extract

(Contd. of page 4)

# Sensitization: No sensitizing effects known.

Additional toxicological information:

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

## 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 available* No further relevant information available. Persistence and degradability Not available No further relevant information available. **Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. Ecotoxicological effects: Remark: Not available Additional ecological information: General notes: Not known to be hazardous to 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** 

Not hazardous for transportation

US

Printing date 12/17/2020

Reviewed on 12/15/2020

## Trade name: TNT® Wheat Germ Extract

		(Contd. of page
DOT, ADR, ADN, IMDG, IATA	Not applicable	
UN proper shipping name DOT, ADR, ADN, IMDG, IATA	None Not applicable	
Transport hazard class(es)	None	
DOT, ADR, ADN, IMDG, IATA Class	Not applicable	
Packing group DOT, ADR, IMDG, IATA	None Not applicable	
Environmental hazards: Marine pollutant:	No	
Special precautions for user	Not applicable.	
Transport in bulk according to Annex MARPOL73/78 and the IBC Code	<b>II of</b> Not applicable.	
UN "Model Regulation":	Not applicable	

# **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:

56-81-5 glycerol

Hazardous Air Pollutants

None of the 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.

(Contd. on page 7)

<sup>-</sup> US

Printing date 12/17/2020

Reviewed on 12/15/2020

Trade name: TNT® Wheat Germ Extract

(Contd. of page 6)

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

None of the ingredients are listed.

GHS label elements Not applicable Signal word Not applicable Hazard statements Not applicable

*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 Chemical Regulatory Department 2800 Woods Hollow Road Madison, WI Ph:(608)274-4330 Date of preparation / last revision 12/17/2020 / 1.0 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 12/17/2020

Reviewed on 12/16/2020

# **1 Identification**

Product identifier Trade name: <u>TNT® T7 PCR Quick Master Mix</u>

Article number: L554 Application of the substance / the mixture For Laboratory Use

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: ChemicalRegulatory@promega.com Promega Corporation 2800 Woods Hollow Road Madison, WI 53711 U.S.A. 1-800-356-9526 or (608)-274-4330 **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 Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable Classification system: NFPA ratings (scale 0 - 4) Health = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0Fire = 0*Reactivity* = 0OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Not applicable Target Organ(s): Not applicable or unknown

Page 1/7

(Contd. on page 2)

US

Printing date 12/17/2020

Reviewed on 12/16/2020

## Trade name: TNT® T7 PCR Quick Master Mix

(Contd. of page 1)

1-5% 1-5%

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

## 3 Composition/information on ingredients

## Chemical characterization: Mixtures

Description:

The product is made up of a mixture of non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

Dangerous components:

107-21-1 ethane-1,2-diol

56-81-5 glycerol

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

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.

(Contd. on page 3)

US

Printing date 12/17/2020

Reviewed on 12/16/2020

## Trade name: TNT® T7 PCR Quick Master Mix

(Contd. of page 2)

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.

# 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:

## 107-21-1 ethane-1,2-diol

TLV Short-term value: 10\*\* mg/m<sup>3</sup>, 50\* ppm Long-term value: 25\* ppm \*vapor fraction: \*\*inh. fraction, aerosol only

## WEEL I (2)

## 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.

(Contd. on page 4)

*Printing date 12/17/2020* 

Reviewed on 12/16/2020

# Trade name: TNT® T7 PCR Quick Master Mix

(Contd. of page 3)

Information on basic physical and of Communication	chemical properties
General Information Appearance:	
Appearance. Form:	Fluid
Color:	Colorless
Odor:	Not determined
Odor threshold:	Not determined.
pH-value at 20 °C (68 °F):	7
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.
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/wate	er): Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Organic solvents:	1.8 %
Water:	88.7 %
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.

(Contd. on page 5)

Printing date 12/17/2020

Reviewed on 12/16/2020

## Trade name: TNT® T7 PCR Quick Master Mix

(Contd. of page 4)

# **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: No 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:

#### 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 available No further relevant information available. Persistence and degradability Not available No further relevant information available. **Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. Ecotoxicological effects: **Remark:** Not available Additional ecological information: General notes: Not known to be hazardous to 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.

(Contd. on page 6)

US

Printing date 12/17/2020

Reviewed on 12/16/2020

## Trade name: TNT® T7 PCR Quick Master Mix

(Contd. of page 5)

## Uncleaned packagings:

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

# **14 Transport information**

Not hazardous for transportation Not applicable
None Not applicable
None
Not applicable
None Not applicable
No
Not applicable.
o <b>f</b> Not applicable.
Not applicable

# **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):

107-21-1 ethane-1,2-diol

TSCA (Toxic Substances Control Act) Inventory:

107-21-1 ethane-1,2-diol

56-81-5 glycerol

Hazardous Air Pollutants

107-21-1 ethane-1,2-diol

**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.

(Contd. on page 7)

US -

Printing date 12/17/2020

Reviewed on 12/16/2020

## Trade name: TNT® T7 PCR Quick Master Mix

(Contd. of page 6)

A4

Chemicals known to cause developmental toxicity:

107-21-1 ethane-1,2-diol

## Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

## TLV (Threshold Limit Value established by ACGIH)

107-21-1 ethane-1,2-diol

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

None of the ingredients are listed.

GHS label elements Not applicable Signal word Not applicable Hazard statements Not applicable

National regulations: No information available

*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 Chemical Regulatory Department 2800 Woods Hollow Road Madison, WI Ph:(608)274-4330 Date of preparation / last revision 12/17/2020 / 1.0 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 12/17/2020

Reviewed on 10/30/2020

# 1 Identification Product identifier Trade name: <u>TNT® T7 Quick Master Mix</u> Article number: L520 Application of the substance / the mixture For Laboratory Use 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: ChemicalRegulatory@promega.com Promega Corporation 2800 Woods Hollow Road Madison, WI 53711 U.S.A. 1-800-356-9526 or (608)-274-4330 **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 Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable Classification system: NFPA ratings (scale 0 - 4) Health = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0Fire = 0*Reactivity* = 0OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Not applicable Target Organ(s): Not applicable or unknown

Page 1/7

(Contd. on page 2)

Printing date 12/17/2020

Reviewed on 10/30/2020

Trade name: TNT® T7 Quick Master Mix

(Contd. of page 1)

1-5% 1-5%

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

# **3** Composition/information on ingredients

## Chemical characterization: Mixtures

Description:

The product is made up of a mixture of non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

Dangerous components:

107-21-1 ethane-1,2-diol

56-81-5 glycerol

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

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.

(Contd. on page 3)

US

Printing date 12/17/2020

Reviewed on 10/30/2020

## Trade name: TNT® T7 Quick Master Mix

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 7 for information on safe nanality 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:** 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:

#### 107-21-1 ethane-1,2-diol

TLV Short-term value: 10\*\* mg/m<sup>3</sup>, 50\* ppm Long-term value: 25\* ppm \*vapor fraction: \*\*inh. fraction, aerosol only

WEEL I (2)

## 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.

(Contd. of page 2)

(Contd. on page 4)

*Printing date 12/17/2020* 

Reviewed on 10/30/2020

# Trade name: TNT® T7 Quick Master Mix

(Contd. of page 3)

Information on basic physical and c	chemical properties	
General Information Appearance:		
Appearance: Form:	Fluid	
Color:	Colorless	
Odor:	Not determined	
Odor threshold:	Not determined.	
pH-value at 20 °C (68 °F):	7	
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.	
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/wate	er): Not determined.	
Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
Organic solvents:	1.8 %	
Water: VOC content:	88.7 % 0.00 %	

# 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.

(Contd. on page 5)

Printing date 12/17/2020

Reviewed on 10/30/2020

## Trade name: TNT® T7 Quick Master Mix

(Contd. of page 4)

# **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: No 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:

#### 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 available No further relevant information available. Persistence and degradability Not available No further relevant information available. **Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. Ecotoxicological effects: **Remark:** Not available Additional ecological information: General notes: Not known to be hazardous to 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.

(Contd. on page 6)

US

Printing date 12/17/2020

Reviewed on 10/30/2020

Trade name: TNT® T7 Quick Master Mix

(Contd. of page 5)

## Uncleaned packagings:

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

# **14 Transport information**

Not hazardous for transportation Not applicable
None Not applicable
None
Not applicable
None Not applicable
No
Not applicable.
<b>f</b> Not applicable.
Not applicable

# **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):

107-21-1 ethane-1,2-diol

TSCA (Toxic Substances Control Act) Inventory:

107-21-1 ethane-1,2-diol

56-81-5 glycerol

Hazardous Air Pollutants

107-21-1 ethane-1,2-diol

**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.

(Contd. on page 7)

US -

Printing date 12/17/2020

Reviewed on 10/30/2020

Trade name: TNT® T7 Quick Master Mix

(Contd. of page 6)

A4

Chemicals known to cause developmental toxicity:

107-21-1 ethane-1,2-diol

Cancerogenity categories

EPA (Environmental Protection Agency)

None of the ingredients are listed.

TLV (Threshold Limit Value established by ACGIH)

107-21-1 ethane-1,2-diol

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

None of the ingredients are listed.

GHS label elements Not applicable Signal word Not applicable Hazard statements Not applicable

*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 Chemical Regulatory Department 2800 Woods Hollow Road Madison, WI Ph:(608)274-4330 Date of preparation / last revision 12/17/2020 / 1.0 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.

US



## Printing date 12/17/2020

Reviewed on 12/14/2020

# 1 Identification

Product identifier Trade name: <u>T7-S30 Extract for Circular DNA</u>

Article number: L114 Application of the substance / the mixture For Laboratory Use

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: ChemicalRegulatory@promega.com Promega Corporation 2800 Woods Hollow Road Madison, WI 53711 U.S.A. 1-800-356-9526 or (608)-274-4330 **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 Not applicable Hazard pictograms Not applicable Signal word Not applicable Hazard statements Not applicable Classification system: NFPA ratings (scale 0 - 4) Health = 0Fire = 0*Reactivity* = 0HMIS-ratings (scale 0 - 4) *Health* = 0Fire = 0*Reactivity* = 0OSHA Hazard Overview (Criteria according to 29CFR1910.1200): Not applicable Target Organ(s): Not applicable or unknown

Page 1/7

(Contd. on page 2)

Printing date 12/17/2020

Reviewed on 12/14/2020

#### Trade name: T7-S30 Extract for Circular DNA

(Contd. of page 1)

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

# **3** Composition/information on ingredients

Chemical characterization: Mixtures

Description:

The product is made up of a mixture of non-hazardous components. The exact concentration percentages and components name may be withheld as a Promega Corp. trade secret.

**Dangerous components:** Not applicable **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 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.

(Contd. on page 3)

<sup>----------------------</sup>US

Printing date 12/17/2020

Reviewed on 12/14/2020

Trade name: T7-S30 Extract for Circular DNA

(Contd. of page 2)

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:** 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 Appearance:	chemical properties	
Form:	Fluid	
Color:	Colorless	
Odor:	Not determined	
Odor threshold:	Not determined.	
<i>pH-value at 20 °C (68 °F):</i>	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.	

Printing date 12/17/2020

Reviewed on 12/14/2020

# Trade name: T7-S30 Extract for Circular DNA

		(Contd. of page
Decomposition temperature:	Not determined.	
Auto igniting:	Product is not selfigniting.	
Danger of explosion:	Product does not present an explosion hazard.	
Explosion limits:	1 1	
Lower:	Not determined.	
Upper:	Not determined.	
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:	Not determined.	
Kinematic:	Not determined.	
Water:	98.9 %	
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: No 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:

#### 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.

(Contd. on page 5)

US

Printing date 12/17/2020

Reviewed on 12/14/2020

Trade name: T7-S30 Extract for Circular DNA

(Contd. of page 4)

US

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

None of the ingredients are listed.

## **12 Ecological information**

#### Toxicity

Aquatic toxicity: *Not available* No further relevant information available. Persistence and degradability *Not available* No further relevant information available. **Bioaccumulative potential** Not known No further relevant information available. Mobility in soil No further relevant information available. Ecotoxicological effects: **Remark:** Not available Additional ecological information: General notes: Not available. Not known to be hazardous to 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 Not hazardous for transportation DOT, ADR, ADN, IMDG, IATA Not applicable UN proper shipping name None DOT, ADR, ADN, IMDG, IATA Not applicable Transport hazard class(es) None DOT, ADR, ADN, IMDG, IATA Not applicable Class Not applicable

Printing date 12/17/2020

Reviewed on 12/14/2020

Trade name: T7-S30 Extract for Circular DNA

		(Contd. of page 5
Packing group DOT, ADR, IMDG, IATA	None Not applicable	
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":	Not applicable	

# **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.

## Hazardous Air Pollutants

None of the 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 Not applicable Signal word Not applicable Hazard statements Not applicable

*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 12/17/2020

Reviewed on 12/14/2020

## Trade name: T7-S30 Extract for Circular DNA

(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 Chemical Regulatory Department 2800 Woods Hollow Road Madison. WI Ph:(608)274-4330 Date of preparation / last revision 12/17/2020 / 1.0 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.