SAFETY DATA SHEET



Document Type EGHS - Europe GHS

Revision date 27-Jun-2016

Version 3

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name NEBNext Ultra II End Prep Enzyme Mix

Product No E7646

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended use This product is for research and development only

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Supplier Address New England BioLabs

240 County Road Ipswich, MA 01938

USA

Company Phone Number 978-927-5054

800-632-5227 (toll free)

Telefax 978-921-1350

For further information, please contact

E-mail address info@neb.com

1.4. Emergency telephone number

Emergency telephone 978-927-5054

800-632-5227 (toll free)

9:00am - 5:00pm Monday-Friday EST

Emergency telephone - §45 - (EC)1272/2008 Europe 112

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

2.2. Label elements

Product identifier

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]

Signal word

None

EUH210 - Safety data sheet available on request

2.3. Other hazards

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable

3.2 Mixtures

Full text of H- and EUH-phrases: see section 16

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice

Immediate medical attention is required. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). Remove from exposure, lie down. Do not breathe dust/fume/gas/mist/vapors/spray.

Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

Skin contact

Wash skin with soap and water.

Inhalation

Remove to fresh air.

Ingestion

Clean mouth with water and drink afterwards plenty of water.

4.2. Most important symptoms and effects, both acute and delayed

No information available

4.3. Indication of any immediate medical attention and special treatment needed

Note to physicians

Treat symptomatically.

Product name NEBNext Ultra II End Prep Enzyme Mix

Page 2/9

Section 5: FIRE FIGHTING MEASURES

5.1. Extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

5.2. Special hazards arising from the substance or mixture

No information available

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions

Ensure adequate ventilation, especially in confined areas.

For emergency responders

Use personal protection recommended in Section 8.

6.2. Environmental precautions

See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for containment

Prevent further leakage or spillage if safe to do so.

Methods for cleaning up

Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. This material and its container must be disposed of as hazardous waste.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage temperature

Refer to www.neb.com for specific information.

Storage Conditions

Keep/store only in original container.

Incompatible materials

None known based on information supplied.

7.3. Specific end use(s)

Risk management methods [RMM]

The information required is contained in this Safety Data Sheet.

Product name NEBNext Ultra II End Prep Enzyme Mix

Page 3/9

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure Limits This product, as supplied, does not contain any hazardous materials with occupational

exposure limits established by the region specific regulatory bodies

Derived No Effect Level (DNEL)

No information available

Predicted No Effect Concentration No information available

(PNEC)

8.2. Exposure controls

Engineering controls

Showers. Eyewash stations.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin and body protection

Wear suitable protective clothing and gloves.

Respiratory protection

Use in well ventilated areas.

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls

See Section 12: ECOLOGICAL INFORMATION.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state Liquid
Appearance Colorless
Odor Mild

Odor threshold No information available

Property Remarks • Method

pH Refer to www.neb.com for specific information

Melting point / freezing pointNo information availableBoiling point / boiling rangeNo information availableFlash pointNo information availableEvaporation rateNo information availableFlammability (solid, gas)No information availableFlammability Limit in AirNo information available

Upper flammability limit

Lower flammability limit

Autoignition temperature

Vapor pressureNo information availableVapor densityNo information availableRelative densityNo information availableSpecific gravityNo information availableWater solubilityNo information availableSolubility in other solventsNo information availablePartition coefficientNo information available

Product name NEBNext Ultra II End

Prep Enzyme Mix

Page 4/9

Product No E7646

No information available

Decomposition temperatureNo information availableKinematic viscosityNo information availableDynamic viscosityNo information availableExplosive propertiesNo information availableOxidizing propertiesNo information available

Other information

Softening pointNo information availableMolecular weightNo information availableVOC content (%)No information availableDensityNo information availableBulk densityNo information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Can react briskly with oxidizers - danger of explosion.

10.4. Conditions to avoid

Incompatible materials. Ignition sources. Heat.

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon monoxide. Carbon dioxide (CO2).

Section 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity

Product information

Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation

Avoid breathing vapors or mists

May cause irritation of respiratory tract

Eve contact

Redness

May cause slight irritation

Skin contact

Prolonged contact may cause redness and irritation Repeated exposure may cause skin dryness or cracking

Ingestion

May cause drowsiness or dizziness

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea

Symptoms include burning sensation, coughing, wheezing, shortness of breath, headache, nausea, and vomiting

Unknown acute toxicity 51.12 % of the mixture consists of ingredient(s) of unknown toxicity

Product name NEBNext Ultra II End Prep Enzyme Mix

Page 5/9

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) 25,200.00 mg/kg ATEmix (dermal) 20,000.00 mg/kg ATEmix (inhalation-vapor) 1,140.00 mg/l

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Glycerol	= 12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 570 mg/m³ (Rat) 1 h
Water	> 90 mL/kg (Rat)	-	-
Potassium Chloride	= 2600 mg/kg (Rat)	-	-
Ethylenediamine tetraacetic acid	= 1700 mg/kg (Rat)	-	-

Skin corrosion/irritation Mild Serious eye damage/eye irritation Mild

Not applicable Sensitization Not applicable Germ cell mutagenicity

Carcinogenicity No information available

Reproductive toxicity No information available **Developmental toxicity** No information available **Teratogenicity** No information available STOT - single exposure No information available STOT - repeated exposure No information available Neurological effects No information available

Target organ effects Eyes, Kidneys, Respiratory system, Skin.

Other adverse effects No information available **Symptoms** No information available **Aspiration hazard** No information available

Section 12: ECOLOGICAL INFORMATION

12.1. Toxicity

2.12 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

12.2. Persistence and degradability

No information available

12.3. Bioaccumulative potential

No information available

12.4. Mobility in soil

No information available

12.5. Results of PBT and vPvB assessment

No information available

12.6. Other adverse effects

Other adverse effects

No information available

Endocrine disruptor information

No information available

Product name NEBNext Ultra II End

Prep Enzyme Mix

Page 6/9

Ozone

No information available

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Relevant Information

Keep out of drains, sewers, ditches and waterways.

Waste from Residues/Unused Products

Disposal should be in accordance with applicable regional, national and local laws and regulations. Send to a licensed recycler, reclaimer or incinerator.

Contaminated packaging

Empty containers must be tripled rinsed prior to disposal.

Section 14: TRANSPORT INFORMATION

14.1UN/ID NoNot regulated14.2Proper shipping nameNot regulated14.3Hazard classNot regulated14.4Packing groupNot regulated14.5Marine pollutantNot applicable

14.6 Special Provisions None

14.7 Transport in bulk according to No information available

Annex II of MARPOL 73/78 and the

IBC Code

RID

14.1UN/ID NoNot regulated14.2Proper shipping nameNot regulated14.3Hazard classNot regulated14.4Packing groupNot regulated14.5Environmental hazardNot applicable14.6Special ProvisionsNone

ADR

14.1UN/ID NoNot regulated14.2Proper shipping nameNot regulated14.3Hazard classNot regulated14.4Packing groupNot regulated14.5Environmental hazardNot applicable14.6Special ProvisionsNone

ICAO (air)

14.1 UN/ID NoNot regulated14.2 Proper shipping nameNot regulated14.3 Hazard classNot regulated14.4 Packing groupNot regulated14.5 Environmental hazardNot applicable

14.6 Special Provisions None

IATA

14.1 UN/ID NoNot regulated14.2 Proper shipping nameNot regulated14.3 Hazard classNot regulated

Product name NEBNext Ultra II End Prep Enzyme Mix

Page 7/9

14.4 Packing group 14.5 Environmental hazardNot regulated
Not applicable

14.6 Special Provisions None

Section 15: REGULATORY INFORMATION

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

National Regulations

Occupational Illnesses (R-463-3, France)

European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

International Inventories

All of the components in the product are on the following Inventory lists TSCA (United States):, Canada (DSL/NDSL), Australia (AICS), China (IECSC), Philippines (PICCS).

TSCA Complies

EINECS ELINCS

DSL Complies
NDSL Complies
PICCS Complies

ENCS -

IECSC Complies AICS Complies

KECL -

<u>Legend</u>

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical safety assessment

No information available

Section 16: OTHER INFORMATION

Key or legend to abbreviations and acronyms used in the safety data sheet

Prepared by EH&S Manager

978-927-5054 New England Biol

Prepared by New England BioLabs Issue date No data available

Revision note SDS is valid 3 years from revision date. Contact info@neb.com for latest revision.

This safety data sheet complies with the requirements of: Regulation (EC) No. 1907/2006

Disclaimer

Product name NEBNext Ultra II End

Prep Enzyme Mix

Page 8/9 Product No E7646

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End of Safety Data Sheet