

# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of: Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and Regulation (EC) No. 1272/2008

Revision date 06-May-2023 Version 6

# SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product No E7136

Product name NEBNext Q5U Master Mix

Pure substance/mixture Mixture

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

<u>Supplier Address</u> New England BioLabs

240 County Road Ipswich, MA 01938

USA

For further information, please contact

**Company Phone Number** 978-927-5054, 800-632-5227 (toll free)

**Telefax** 978-921-1350

E-mail address info@neb.com

1.4. Emergency telephone number

24 Hour Emergency Phone Number Chemtrec +44 20 3885 0382

Europe +1 978-380-2125

# **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 [CLP]

#### 2.2. Label elements

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

#### **Hazard statements**

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

EUH210 - Safety data sheet available on request

**Unknown aquatic toxicity**Contains 0 % of components with unknown hazards to the aquatic environment.

#### 2.3. Other hazards

No information available.

**Endocrine Disruptor Information**This product does not contain any known or suspected endocrine disruptors.

# SECTION 3: Composition/information on ingredients

#### 3.1 Substances

Not applicable

3.2 Mixtures

Chemical	Weight-%	REACH registration	EC No (EU Index	Classification according to	Specific	M-Facto	M-Factor
name		number	No)	Regulation (EC) No.	concentratio	r	(long-ter
				1272/2008 [CLP]	n limit (SCL)		m)
Trade Secret	1 - 5	No data available	.?	No data available	-	-	-
Trade Secret	0.1 - 1	No data available	.?	No data available	-	-	-

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

### **Acute Toxicity Estimate**

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

Chemical name	Oral LD50 mg/kg	Dermal LD50 mg/kg	Inhalation LC50 - 4	Inhalation LC50 - 4	Inhalation LC50 - 4
				hour - vapor - mg/L	hour - gas - ppm
			mg/L		
Trade Secret	28300	40000	No data available	No data available	No data available
Trade Secret	2840	2000	No data available	No data available	No data available

This product does not contain candidate substances of very high concern at a concentration >=0.1% (Regulation (EC) No. 1907/2006 (REACH), Article 59)

## **SECTION 4: First aid measures**

4.1. Description of first aid measures

**Inhalation** Remove to fresh air.

**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. In the case of skin irritation or allergic reactions see a

physician.

**Ingestion** Rinse mouth.

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

**Symptoms** No information available.

Effects of Exposure No information available.

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

# **SECTION 5: Firefighting measures**

5.1. Extinguishing media

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the

surrounding environment.

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

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

5.2. Special hazards arising from the substance or mixture

Specific hazards arising from the

chemical

No information available.

5.3. Advice for firefighters

Special protective equipment and precautions for fire-fighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Use personal protection equipment.

### SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation.

6.2. Environmental precautions

**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**Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

6.4. Reference to other sections

**Reference to other sections**See section 8 for more information. See section 13 for more information.

# **SECTION 7: Handling and storage**

#### 7.1. Precautions for safe handling

Advice on safe handling Ensure adequate ventilation.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

7.2. Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep container tightly closed in a dry and well-ventilated place.

Storage class (TRGS 510) Storage class 10.

7.3. Specific end use(s)

Risk management methods [RMM] The information required is contained in this Safety Data Sheet.

# SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

**Exposure Limits** 

Chemical name	European Union	Austria	Belgium	Bulgaria	Croatia
Trade Secret	-	TWA: 50 ppm TWA: 160 mg/m³ H*	-	-	-
Trade Secret	-	-	-	TWA: 10.0 mg/m <sup>3</sup>	-
Chemical name	Cyprus	Czech Republic	Denmark	Estonia	Finland
Trade Secret	-	-	TWA: 50 ppm TWA: 160 mg/m <sup>3</sup> STEL: 100 ppm STEL: 320 mg/m <sup>3</sup>	TWA: 50 ppm TWA: 150 mg/m³ STEL: 150 ppm STEL: 500 mg/m³ A*	TWA: 50 ppm iho*
Chemical name	France	Germany TRGS	Germany DFG	Greece	Hungary
Trade Secret	-	TWA: 50 ppm TWA: 160 mg/m³ H*	TWA: 50 ppm TWA: 160 mg/m³ Peak: 100 ppm Peak: 320 mg/m³	-	-
Chemical name	Ireland	Italy MDLPS	Italy AIDII	Latvia	Lithuania
Trade Secret	-	-	-	-	O* TWA: 50 ppm TWA: 150 mg/m <sup>3</sup> STEL: 150 ppm

								STEL: 500 mg/m <sup>3</sup>
Trade Secret		-	-	-		TWA: 0	.02 mg/m <sup>3</sup>	-
Chemical name	ı	Portugal	Romania	Slov	akia	Slo	venia	Spain
Trade Secret		-	-	-		TWA: STEL: STEL: 3	60 mg/m <sup>3</sup> 50 ppm 100 ppm 320 mg/m <sup>3</sup> K*	-
Chemical name		Sv	weden	Sw	itzerland		Uni	ted Kingdom
Trade Secret		NGV: <sup>2</sup> Vägledande	: 50 ppm 150 mg/m³ • KGV: 150 ppm KGV: 500 mg/m³ H*	TWA: STEI	A: 50 ppm 160 mg/n L: 100 ppn : 320 mg/r H*	า <sup>3</sup> า		-

Biological occupational exposure limits

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

# Derived No Effect Level (DNEL) - Workers

Chemical name	Oral	Dermal	Inhalation
Trade Secret	-	-	56 mg/m³ [5] [6]
Trade Secret	-	200 mg/kg bw/day [4] [6]	484 mg/m³ [4] [6] 265 mg/m³ [5] [6]
Trade Secret	-	303 mg/kg bw/day [4] [6] 910 mg/kg bw/day [4] [7]	1064 mg/m³ [4] [6] 5320 mg/m³ [4] [7]
Trade Secret	-	166.7 mg/kg bw/day [4] [6]	117.5 mg/m³ [4] [6]
Trade Secret	-	0.4 mg/kg bw/day [4] [6]	2.9 mg/m³ [4] [6]
Trade Secret	-	21.3 mg/kg bw/day [4] [6]	37.6 mg/m³ [4] [6]

**Notes** 

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

# Derived No Effect Level (DNEL) - General Public

Chemical name	Oral	Dermal	Inhalation
Trade Secret	4413 mg/kg bw/day [4] [6] 11178 mg/kg bw/day [4] [7]	-	-
Trade Secret	229 mg/kg bw/day [4] [6]	-	33 mg/m <sup>3</sup> [5] [6]
Trade Secret	60 mg/kg bw/day [4] [6]	-	120 mg/m³ [4] [6] 47 mg/m³ [5] [6]
Trade Secret	91 mg/kg bw/day [4] [6] 455 mg/kg bw/day [4] [7]	910 mg/kg bw/day [4] [6] 910 mg/kg bw/day [4] [7]	273 mg/m³ [4] [6] 1365 mg/m³ [4] [7]
Trade Secret	8.3 mg/kg bw/day [4] [6]	-	29 mg/m³ [4] [6]
Trade Secret	0.25 mg/kg bw/day [4] [6]	-	1.76 mg/m³ [4] [6]

Chemical name	Oral	Dermal	Inhalation
Trade Secret	12.8 mg/kg bw/day [4] [6]	-	11.1 mg/m³ [4] [6]

**Notes** 

[4] Systemic health effects.
[5] Local health effects.
[6] Long term.
[7] Short term.

# **Predicted No Effect Concentration (PNEC)**

Chemical name	Freshwater	Freshwater (intermittent release)	Marine water	Marine water (intermittent release)	Air
Trade Secret	1.2 mg/L	-	-	-	-
Trade Secret	0.885 mg/L	8.85 mg/L	0.0885 mg/L	-	-
Trade Secret	17 mg/L	-	1.7 mg/L	-	-
Trade Secret	0.1 mg/L	1 mg/L	0.1 mg/L	-	-
Trade Secret	0.6 μg/L	36 μg/L	0.06 μg/L	-	-
Trade Secret	0.68 mg/L	6.8 mg/L	0.068 mg/L	-	-

Chemical name	Freshwater sediment	Marine sediment	Sewage treatment	Soil	Food chain
Trade Secret	3.3 mg/kg sediment dw	0.33 mg/kg sediment dw	1000 mg/L	0.141 mg/kg soil dw	-
Trade Secret	13.4 mg/kg sediment dw	-	11 mg/L	3.02 mg/kg soil dw	0.7 g/kg food
Trade Secret	-	-	10 mg/L	-	-
Trade Secret	-	-	300 mg/L	-	-
Trade Secret	35 μg/kg sediment dw	3.5 µg/kg sediment dw	6 mg/L	6.6 μg/kg soil dw	-
Trade Secret	-	-	10 mg/L	-	-

## 8.2. Exposure controls

**Engineering controls** No information available.

Individual protection measures, such as personal protective

equipment

**Eye/face protection** No special protective equipment required.

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Skin and body protection No special protective equipment required.

Respiratory protection No protective equipment is needed under normal use conditions. If exposure limits are

exceeded or irritation is experienced, ventilation and evacuation may be required.

None known

General hygiene considerations Handle in accordance with good industrial hygiene and safety practice.

No information available. **Environmental exposure controls** 

# SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid **Appearance** Clear

Color No information available

Odor

**Odor threshold** No information available

Values Remarks • Method Property

No data available Melting point / freezing point None known Initial boiling point and boiling rangeNo data available None known Flammability (solid, gas) No data available None known Flammability Limit in Air None known

Upper flammability or explosive No data available

limits

Lower flammability or explosive No data available

limits

Flash point No data available None known

215 °C **Autoignition temperature** 

**Decomposition temperature** 

86

pH (as aqueous solution) No data available None known Kinematic viscosity No data available None known Dynamic viscosity No data available None known Water solubility No data available None known Solubility(ies) No data available None known **Partition coefficient** No data available None known Vapor pressure No data available None known Relative density No data available None known

**Bulk density** No data available No data available **Liquid Density** 

Vapor density No data available None known

**Particle characteristics** 

**Particle Size** No information available No information available **Particle Size Distribution** 

#### 9.2. Other information

9.2.1. Information with regard to physical hazard classes Not applicable

9.2.2. Other safety characteristics No information available

# SECTION 10: Stability and reactivity

## 10.1. Reactivity

**Reactivity** No information available.

10.2. Chemical stability

**Stability** Stable under normal conditions.

**Explosion data** 

Sensitivity to mechanical impact None. Sensitivity to static discharge None.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions 
None under normal processing.

10.4. Conditions to avoid

**Conditions to avoid**None known based on information supplied.

10.5. Incompatible materials

**Incompatible materials**None known based on information supplied.

10.6. Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

# SECTION 11: Toxicological information

#### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on likely routes of exposure

**Product Information** 

**Inhalation** Specific test data for the substance or mixture is not available.

**Eye contact** Specific test data for the substance or mixture is not available.

**Skin contact** Specific test data for the substance or mixture is not available.

**Ingestion** Specific test data for the substance or mixture is not available.

Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** No information available.

Acute toxicity

Numerical measures of toxicity

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

 ATEmix (oral)
 124,720.20 mg/kg

 ATEmix (dermal)
 266,666.70 mg/kg

 ATEmix (inhalation-gas)
 99,999.00 ppm

 ATEmix (inhalation-vapor)
 99,999.00 mg/l

 ATEmix (inhalation-dust/mist)
 99,999.00 mg/l

**Component Information** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trade Secret	= 28300 mg/kg (Rat)	= 40000 mg/kg (Rat)	> 5.33 mg/L (Rat) 4 h
Trade Secret	= 2840 mg/kg (Rat)	> 2000 mg/kg (Rat)	-

Delayed and immediate effects as well as chronic effects from short and long-term exposure

**Skin corrosion/irritation**No information available.

Serious eye damage/eye irritation No information available.

**Respiratory or skin sensitization** No information available.

Germ cell mutagenicity No information available.

**Carcinogenicity** No information available.

Reproductive toxicity No information available.

**STOT - single exposure** No information available.

**STOT - repeated exposure** No information available.

**Aspiration hazard** No information available.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

11.2.2. Other information

Other adverse effects No information available.

# **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecotoxicity

**Unknown aquatic toxicity**Contains 0 % of components with unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Trade Secret	-	LC50: =34000mg/L (96h,	-	-
		Pimephales promelas)		

			· · · · · · · · · · · · · · · · · · ·	
		.C50: 33 - 37g/L (96h,		
		Oncorhynchus mykiss)		
		LC50: >40g/L (96h,		
	L	_epomis macrochirus)		
		LC50: =41.7g/L (96h,		
		Cyprinus carpio)		
Trade Secret	- L	.C50: =250mg/L (96h,	-	LC50: =14mg/L (48h,
		Brachydanio rerio)		Daphnia magna)
	L	.C50: =480mg/L (96h,		-
		Brachydanio rerio)		
	L	C50: =420mg/L (96h,		
		Brachydanio rerio)		
		LC50: =18mg/L (96h,		
		Cyprinus carpio)		
	L	.C50: 32.2 - 41.9mg/L		
		(96h, Oncorhynchus		
		mykiss)		
	LC	50: 5.2 - 8.2mg/L (96h,		
		Oncorhynchus mykiss)		
		.C50: >100mg/L (96h,		
		Pimephales promelas)		
		LC50: 123 - 128mg/L		
		6h, Poecilia reticulata)		
		.C50: =126mg/L (96h,		
		Poecilia reticulata)		
		. Joshia rollodiala)		

# 12.2. Persistence and degradability

Persistence and degradability No information available.

## 12.3. Bioaccumulative potential

**Bioaccumulation** 

**Component Information** 

Chemical name	Partition coefficient
Trade Secret	-1.35
Trade Secret	-5.1

## 12.4. Mobility in soil

Mobility in soil No information available.

## 12.5. Results of PBT and vPvB assessment

**PBT and vPvB assessment** No information available.

Chemical name	PBT and vPvB assessment
Trade Secret	The substance is not PBT / vPvB
Trade Secret	The substance is not PBT / vPvB

## 12.6. Endocrine disrupting properties

**Endocrine disrupting properties** No information available.

## 12.7. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues/unused products

Dispose of in accordance with local regulations. Dispose of waste in accordance with

environmental legislation.

Contaminated packaging Do not reuse empty containers.

# SECTION 14: Transport information

ı	Α	٦	$\Gamma L$	١
	_			•

14.1 UN number or ID number14.2 Extended Proper ShippingNot regulatedNot regulated

Name

14.3 Transport hazard class(es)
 14.4 Packing group
 14.5 Environmental hazard
 Not regulated Not regulated Not applicable

14.6 Special precautions for user

Special Provisions None

**IMDG** 

14.1 UN number or ID number14.2 Extended Proper ShippingNot regulatedNot regulated

Name

14.3 Transport hazard class(es)
 14.4 Packing group
 14.5 Environmental hazard
 Not regulated Not applicable

14.6 Special precautions for user

Special Provisions None

**14.7 Maritime transport in bulk** No information available

according to IMO instruments

RID

14.1 UN/ID No Not regulated14.2 Extended Proper Shipping Not regulated

Name

14.3 Transport hazard class(es)
 14.4 Packing group
 14.5 Environmental hazard
 Not regulated Not applicable

14.6 Special precautions for user

Special Provisions None

ADR

14.1 UN number or ID number
 14.2 UN proper shipping name
 14.3 Transport hazard class(es)
 14.4 Packing group
 14.5 Environmental hazard
 Not regulated Not regulated Not applicable

14.6 Special precautions for user

Special Provisions None

# SECTION 15: Regulatory information

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

#### National regulations

#### **France**

#### Occupational Illnesses (R-463-3, France)

Chemical name	French RG number
Trade Secret -	RG 84
	RG 5,RG 14,RG 15,RG 15bis,RG 20bis

#### **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.

#### Authorizations and/or restrictions on use:

This product contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Chemical name	Restricted substance per REACH Annex XVII	Substance subject to authorization per REACH Annex XIV
Trade Secret -	75.	-
Trade Secret -	65.	-

#### **Persistent Organic Pollutants**

Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009

Not applicable

Biocidal Products Regulation (EU) No 528/2012 (BPR)

Chemical name	Biocidal Products Regulation (EU) No 528/2012 (BPR)
Trade Secret -	Product-type 11: Preservatives for liquid-cooling and
	processing systems Product-type 12: Slimicides

#### **International Inventories**

**TSCA** Contact supplier for inventory compliance status **DSL/NDSL** Contact supplier for inventory compliance status **EINECS/ELINCS** Contact supplier for inventory compliance status Contact supplier for inventory compliance status **ENCS** Contact supplier for inventory compliance status **IECSC** Contact supplier for inventory compliance status **KECL** Contact supplier for inventory compliance status **PICCS** Contact supplier for inventory compliance status **AIIC NZIoC** Contact supplier for inventory compliance status

#### Legend:

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

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

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

**ENCS** - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

### 15.2. Chemical safety assessment

Chemical Safety Report No information available

## **SECTION 16: Other information**

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

#### Legend

SVHC: Substances of Very High Concern for Authorization:

Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)

Ceiling Maximum limit value \* Skin designation

+ Sensitizers

#### Key literature references and sources for data used to compile the SDS

Agency for Toxic Substances and Disease Registry (ATSDR) U.S. Environmental Protection Agency ChemView Database

European Food Safety Authority (EFSA)

European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)

European Chemicals Agency (ECHA) (ECHA\_API)

EPA (Environmental Protection Agency)
Acute Exposure Guideline Level(s) (AEGL(s))

U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act

U.S. Environmental Protection Agency High Production Volume Chemicals

Food Research Journal

Hazardous Substance Database

International Uniform Chemical Information Database (IUCLID)

National Institute of Technology and Evaluation (NITE)

Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)

NIOSH (National Institute for Occupational Safety and Health)

National Library of Medicine's ChemID Plus (NLM CIP)

National Library of Medicine's PubMed database (NLM PUBMED)

National Toxicology Program (NTP)

New Zealand's Chemical Classification and Information Database (CCID)

Organization for Economic Co-operation and Development Environment, Health, and Safety Publications Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set

World Health Organization

Prepared by Environmental, Health and Safety

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

Revision date 06-May-2023

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

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**End of Safety Data Sheet**