1. Identification

1.1. Product identifier

Product No E7766
Product name NEBNext Strand Specificity Reagent

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

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

Europe +1 978-380-2125

2. Hazard(s) 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

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

Hazard statements
This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [GHS]
EUH210 - Safety data sheet available on request

2.3. Other hazards

Other hazards No information available
3. Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>EC No</th>
<th>CAS No</th>
<th>Weight-%</th>
<th>Classification according to Regulation (EC) No. 1272/2008 [CLP]</th>
<th>REACH registration number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>200-664-3</td>
<td>-</td>
<td>1 - 5</td>
<td>No data available</td>
<td>No data available</td>
</tr>
</tbody>
</table>

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

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
Clean mouth with water and drink afterwards plenty of water.

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

Symptoms
No information available.

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

Note to physicians
Treat symptomatically.

5. Fire-fighting measures

5.1. Extinguishing media

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

Unsuitable Extinguishing Media
No information available.

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 for fire-fighters
Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.
6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions
Ensure adequate ventilation.

For emergency responders
Use personal protection recommended in Section 8.

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.

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.

7.3. Specific end use(s)

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

8. Exposure controls/personal protection

8.1. Control parameters

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>European Union</th>
<th>United Kingdom</th>
<th>France</th>
<th>Spain</th>
<th>Germany</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA: 50 ppm</td>
<td>TWA: 160 mg/m³</td>
<td>H*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical name</td>
<td>Italy</td>
<td>Portugal</td>
<td>Netherlands</td>
<td>Finland</td>
<td>Denmark</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>TWA: 50 ppm iho*</td>
<td>TWA: 50 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA: 160 mg/m³</td>
<td></td>
<td></td>
<td>TWA: 160 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Chemical name</td>
<td>Austria</td>
<td>Switzerland</td>
<td>Poland</td>
<td>Norway</td>
<td>Ireland</td>
</tr>
<tr>
<td>Trade Secret</td>
<td>H*</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA: 50 ppm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TWA: 160 mg/m³</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>STEL: 100 ppm</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>STEL: 320 mg/m³</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
8.2. Exposure controls

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.

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.

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

Environmental exposure controls
No information available.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Remarks • Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td>Orange</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless.</td>
<td></td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
<td></td>
</tr>
<tr>
<td>pH</td>
<td>7.4</td>
<td></td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Boiling point / boiling range</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Flammability Limit in Air</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Upper flammability or explosive limits</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Lower flammability or explosive limits</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Vapor density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Water solubility</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
<td>None known</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
<td>None known</td>
</tr>
</tbody>
</table>
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.

11. Toxicological information

11.1. Information on toxicological effects
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.

Numerical measures of toxicity

Acute toxicity

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

| ATEmix (oral)   | 1,160,000.00 |
| ATEmix (dermal) | 3,200,000.00 |

Unknown acute toxicity
1.25 % of the mixture consists of ingredient(s) of unknown toxicity.
0 % of the mixture consists of ingredient(s) of unknown acute oral toxicity.
0 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity.
1.25 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas).
1.25 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor).
1.25 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist).

Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral LD50</th>
<th>Dermal LD50</th>
<th>Inhalation LC50</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>= 14500 mg/kg (Rat)</td>
<td>= 40 g/kg (Rat)</td>
<td>&gt; 5.33 mg/L (Rat) 4 h</td>
</tr>
<tr>
<td></td>
<td>= 28300 mg/kg (Rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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.

12. Ecological information

12.1. Toxicity

Ecotoxicity

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

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Algae/aquatic plants</th>
<th>Fish</th>
<th>Toxicity to microorganisms</th>
<th>Crustacea</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>EC50: 12350 -</td>
<td>LC50: 33 - 37g/L (96h,</td>
<td>-</td>
<td>EC50: =7000mg/L (24h,</td>
</tr>
</tbody>
</table>
25500mg/L (96h, Skeletonema costatum) | Oncorhynchus mykiss) LC50: =41.7g/L (96h, Cyprinus carpio) LC50: >40g/L (96h, Lepomis macrochirus) LC50: =34000mg/L (96h, Pimephales promelas) | Daphnia species) |  

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation There is no data for this product.

Component Information

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Partition coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>-2.03</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment

PBT and vPvB assessment

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>PBT and vPvB assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>The substance is not PBT / vPvB PBT assessment does not apply</td>
</tr>
</tbody>
</table>

12.6. Other adverse effects

Other adverse effects No information available.

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.

14. Transport information

IMDG

14.1 UN number Not regulated
14.2 Proper shipping name Not regulated
14.3 Transport hazard class(es) Not regulated
14.4 Packing group Not regulated
14.5 Marine pollutant Not applicable
14.6 Special Provisions None
14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code No information available
RID
14.1 UN/ID No  Not regulated
14.2 Proper shipping name  Not regulated
14.3 Transport hazard class(es)  Not regulated
14.4 Packing group  Not regulated
14.5 Environmental hazard  Not applicable
14.6 Special Provisions  None

ADR
14.1 UN number  Not regulated
14.2 Proper shipping name  Not regulated
14.3 Transport hazard class(es)  Not regulated
14.4 Packing group  Not regulated
14.5 Environmental hazard  Not applicable
14.6 Special Provisions  None

IATA
14.1 UN number  Not regulated
14.2 Proper shipping name  Not regulated
14.3 Transport hazard class(es)  Not regulated
14.4 Packing group  Not regulated
14.5 Environmental hazard  Not applicable
14.6 Special Provisions  None

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)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>French RG number</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade Secret</td>
<td>RG 84</td>
<td>-</td>
</tr>
</tbody>
</table>

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 does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

Persistent Organic Pollutants
Not applicable

Ozone-depleting substances (ODS) regulation (EC) 1005/2009  Not applicable

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
ENCS  Contact supplier for inventory compliance status
IECSC  Contact supplier for inventory compliance status

Product name  NEBNext Strand Specificity  Page 8 / 10  Product No  E7766  Reagent
15.2. Chemical safety assessment

Chemical Safety Report
No information available

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

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)
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)
Japan GHS Classification
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 High Production Volume Chemicals Program
Organization for Economic Co-operation and Development Screening Information Data Set
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

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Prepared by Environmental, Health and Safety 978-927-5054
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:

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End of Safety Data Sheet