

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 9

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

1.1. Product identifier

Product No P6853

Product name PURExpress RF3

Pure substance/mixture Mixture

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

Recommended useThis 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 toxicityContains 0 % of components with unknown hazards to the aquatic environment.

2.3. Other hazards

No information available.

Endocrine Disruptor InformationThis product does not contain any known or suspected endocrine disruptors.

SECTION 3: Composition/information on ingredients

3.1 Substances

Not applicable

3.2 Mixtures

The product contains no substances which at their given concentration, are considered to be hazardous to health

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

Acute Toxicity Estimate

No information 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 contactWash 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

Note to physiciansTreat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

exposure limits established by the region specific regulatory bodies.

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 |
|---------------------|------|--|--|
| Glycerol 56-81-5 | - | - | 56 mg/m³ [5] [6] |
| Trade Secret | - | 3.33 mg/kg bw/day [4] [6] | 23.5 mg/m³ [4] [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 | - | 10.42 mg/kg bw/day [4] [6] 62.49 mg/kg bw/day [4] [7] | 918.02 mg/m³ [4] [6] 918.02 mg/m³ [4] [7] |
| Trade Secret | - | 0.05 mg/kg bw/day [4] [6] 0.05 mg/kg bw/day [4] [7] | 0.17 mg/m³ [4] [6] 0.17 mg/m³ [4] [7] |

Notes

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

[7] Long term. Short term.

Derived No Effect Level (DNEL) - General Public

| Chemical name | Oral | Dermal | Inhalation |
|---------------------|--|--|--|
| Glycerol 56-81-5 | 229 mg/kg bw/day [4] [6] | - | 33 mg/m³ [5] [6] |
| Trade Secret | 1.67 mg/kg bw/day [4] [6] | - | 5.8 mg/m³ [4] [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 | 5.21 mg/kg bw/day [4] [6] 31.25 mg/kg bw/day [4] [7] | 31.25 mg/kg bw/day [4] [6] 31.25 mg/kg bw/day [4] [7] | 448.95 mg/m³ [4] [6] 448.95 mg/m³ [4] [7] |
| Trade Secret | 0.025 mg/kg bw/day [4] [6] 0.025 mg/kg bw/day [4] [7] | - | - |

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 |
|---------------------|--------------|-----------------------------------|---------------|-------------------------------------|-----|
| Glycerol 56-81-5 | 0.885 mg/L | 8.85 mg/L | 0.0885 mg/L | - | - |
| Trade Secret | 0.1 mg/L | 1 mg/L | 0.1 mg/L | - | - |
| Trade Secret | 0.087 mg/L | - | 0.0087 mg/L | - | - |
| Trade Secret | 0.00632 mg/L | 0.004 mg/L | 0.000632 mg/L | - | - |

| Chemical name | Freshwater | Marine sediment | Sewage treatment | Soil | Food chain |
|---------------|--------------------|---------------------|------------------|---------------------|------------|
| | sediment | | | | |
| Glycerol | 3.3 mg/kg sediment | 0.33 mg/kg | 1000 mg/L | 0.141 mg/kg soil dw | - |
| 56-81-5 | dw | sediment dw | | | |
| Trade Secret | - | - | 10 mg/L | - | - |
| | | | | | |
| Trade Secret | 0.4 µg/kg sediment | 0.04 µg/kg sediment | 0.625 g/L | 0.4 μg/kg soil dw | - |
| | dw | dw | | | |
| Trade Secret | 0.024 mg/kg | 0.0024 mg/kg | 60 mg/L | 0.908 mg/kg soil dw | - |
| | sediment dw | sediment dw | | | |

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.

Skin and body protectionNo special protective equipment required.

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state Liquid Colorless **Appearance**

Color No information available

Mild. Odor

Odor threshold No information available

Remarks • Method **Property** Values

Melting point / freezing point No data available 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

No data available Upper flammability or explosive

limits

Lower flammability or explosive No data available

limits

Flash point No data available None known

Autoignition temperature 295 °C

Decomposition temperature

None known No data available None known рH pH (as aqueous solution) No data available None known No data available Kinematic viscosity 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**

No data available Vapor density None known

Particle characteristics

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

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

Stable under normal conditions. **Stability**

Explosion data

Sensitivity to mechanical impact None. Sensitivity to static discharge

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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 materialsNone 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)
 25,200.00
 mg/kg

 ATEmix (dermal)
 20,000.00
 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

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

Skin corrosion/irritationNo 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 toxicityContains 0 % of components with unknown hazards to the aquatic environment.

12.2. Persistence and degradability

Persistence and degradability No information available.

12.3. Bioaccumulative potential

Bioaccumulation

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.

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

| | 7 | -, | ١. |
|----|---|----|----|
| ΙД | | | |

14.1 UN number or ID number Not regulated 14.2 Extended Proper Shipping Not regulated Name

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

14.6 Special precautions for user

Special Provisions None

IMDG

14.1 UN number or ID number Not regulated 14.2 Extended Proper Shipping Not regulated Name 14.3 Transport hazard class(es) Not regulated

14.4 Packing group Not regulated 14.5 Environmental hazard Not applicable

None

14.6 Special precautions for user **Special Provisions**

No information available 14.7 Maritime transport in bulk

according to IMO instruments

RID

14.1 UN/ID No Not regulated 14.2 Extended Proper Shipping Not regulated Name

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

14.6 Special precautions for user

Special Provisions None

ADR

14.1 UN number or ID number Not regulated 14.2 UN 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 precautions for user

Special Provisions

SECTION 15: Regulatory information

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

None

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