

Revision date 03-Jan-2023

Version 1

Section 1: Identification

Product identifier

Product name Monarch Plasmid Lysis Buffer (B2)

Product No T1012

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use This product is for research and development only

Uses advised against

Details of the supplier of the safety data sheet

Supplier

New England BioLabs (Australia) Pty Ltd
22/270 Ferntree Gully Road
Notting Hill, VIC 3168

E-mail address info.au@neb.com

Emergency telephone number

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

National Poisons Centre 0800 764 766 (toll free)

Section 2: Hazard identification

GHS Classification

Corrosive to metals	Category 1
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2
Chronic aquatic toxicity	Category 3

Label elements



Signal word

Warning

Hazard statements

May be corrosive to metals
 Causes skin irritation
 Causes serious eye irritation
 Harmful to aquatic life with long lasting effects

Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Avoid release to the environment
 Keep only in original packaging
 Wear protective gloves/clothing and eye/face protection

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 If eye irritation persists: Get medical advice/attention

Skin

IF ON SKIN: Wash with plenty of water and soap
 If skin irritation occurs: Get medical advice/attention
 Take off contaminated clothing and wash it before reuse

Spill

Absorb spillage to prevent material damage

Precautionary Statements - Storage

Store in corrosion resistant container with a resistant inner liner

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards which do not result in classification

No information available.

Section 3: Composition/information on ingredients

Chemical name	CAS No	Weight-%
Trade Secret	-	0 - 10%
Trade Secret	-	0 - 10%

Non-hazardous ingredients	Proprietary	Balance
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* The exact percentage (concentration) of composition has been withheld as a trade secret.

Section 4: First-aid measures

Description of first aid measures

General advice	Show this safety data sheet to the doctor in attendance.
Inhalation	Remove to fresh air. Get medical attention immediately if symptoms occur.
Eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists.
Skin contact	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician.
Self-protection of the first aider	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

Most important symptoms and effects, both acute and delayed

Symptoms	May cause redness and tearing of the eyes. Burning sensation.
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Indication of any immediate medical attention and special treatment needed

Note to physicians	Treat symptomatically.
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Section 5: Fire-fighting measures

Suitable extinguishing media

Suitable Extinguishing Media	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
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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.
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Special exposure hazards in a fire

Specific hazards arising from the chemical	No information available.
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Protective equipment and precautions for firefighters

Special protective equipment and precautions for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.
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Section 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions	Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required.
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Other information	Refer to protective measures listed in Sections 7 and 8.
For emergency responders	Use personal protection recommended in Section 8.
<u>Environmental precautions</u>	
Environmental precautions	Prevent further leakage or spillage if safe to do so.
<u>Methods and material for containment and cleaning up</u>	
Methods for containment	Prevent further leakage or spillage if safe to do so.
Methods for cleaning up	Pick up and transfer to properly labeled containers.
<u>Precautions to prevent secondary hazards</u>	
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: Handling and storage

Precautions for safe handling

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.
General hygiene considerations	Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing.

Conditions for safe storage, including any incompatibilities

Storage Conditions	Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from moisture. Store locked up. Keep out of the reach of children. Store away from other materials.
Incompatible materials	Oxidizing agent. Strong acids. Strong bases.

Section 8: Exposure controls/personal protection

Control parameters

Exposure Limits

Chemical name	New Zealand	Australia	ACGIH TLV	United Kingdom
Trade Secret	Ceiling: 2 mg/m ³	Peak: 2 mg/m ³	Ceiling: 2 mg/m ³	STEL: 2 mg/m ³

Biological occupational exposure limits	This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.
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Appropriate engineering controls

Engineering controls	Showers Eyewash stations Ventilation systems.
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Individual protection measures, such as personal protective equipment

Eye/face protection	If splashes are likely to occur, wear safety glasses with side-shields.
Hand protection	Wear suitable gloves. Impervious gloves.
Skin and body protection	Wear suitable protective clothing. Long sleeved 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.
Environmental exposure controls	No information available.

Section 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	Liquid
Appearance	Blue/Green
Color	No information available
Odor	Mild.
Odor threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	13.00-13.20	
Melting point / freezing point	No data available	None known
Initial boiling point and boiling range	No data available	None known
Flash point	No data available	None known
Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Flammability Limit in Air		None known
Upper flammability or explosive limits	No data available	
Lower flammability or explosive limits	No data available	
Vapor pressure	No data available	None known
Vapor density	No data available	None known
Relative density	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
Autoignition temperature	248 °C	
Decomposition temperature		None known
Kinematic viscosity	No data available	None known
Dynamic viscosity	No data available	None known
Explosive properties	No information available.	
Oxidizing properties	No information available.	

Other information

Softening point	No information available
Molecular weight	No information available
VOC content	No information available
Liquid Density	No information available
Bulk density	No information available
Particle characteristics	No information available

Section 10: Stability and reactivity

Reactivity

Reactivity	No information available.
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Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid Exposure to air or moisture over prolonged periods.

Incompatible materials

Incompatible materials Oxidizing agent. Strong acids. Strong bases.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

Section 11: Toxicological information**Acute toxicity****Information on likely routes of exposure****Product Information**

Inhalation	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
Eye contact	Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). May cause redness, itching, and pain.
Skin contact	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
Ingestion	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Symptoms Redness. May cause redness and tearing of the eyes.

Acute toxicity**Numerical measures of toxicity**

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

ATEmix (oral)	21,599.60 mg/kg
ATEmix (dermal)	9,310.30 mg/kg
ATEmix (inhalation-dust/mist)	48.70 mg/l

Component Information

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trade Secret	= 1288 mg/kg (Rat)	= 200 mg/kg (Rabbit)	> 3900 mg/m ³ (Rat) 1 h
	> 2000 mg/kg (Rat)		

	= 1783 mg/kg (Rat)		
Trade Secret	= 325 mg/kg (Rat)	= 1350 mg/kg (Rabbit)	-

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

Skin corrosion/irritation	Classification based on data available for ingredients. Causes skin irritation.
Serious eye damage/eye irritation	Classification based on data available for ingredients. Causes serious eye irritation.
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.
Data used to identify the health effects	Refer to Section 16 for Key literature references and sources for data used to compile the SDS.

Section 12: Ecological information

Ecotoxicity

Aquatic ecotoxicity	Harmful to aquatic life with long lasting effects.
Unknown aquatic toxicity	0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

Chemical name	Algae/aquatic plants	Fish	Crustacea
Trade Secret	EC50: =53mg/L (72h, <i>Desmodesmus subspicatus</i>) EC50: 30 - 100mg/L (96h, <i>Desmodesmus subspicatus</i>) EC50: =117mg/L (96h, <i>Pseudokirchneriella subcapitata</i>) EC50: 3.59 - 15.6mg/L (96h, <i>Pseudokirchneriella subcapitata</i>) EC50: =38mg/L (96h, <i>Desmodesmus subspicatus</i>) EC50: =42mg/L (96h, <i>Desmodesmus subspicatus</i>)	LC50: 15 - 18.9mg/L (96h, <i>Pimephales promelas</i>) LC50: 8 - 12.5mg/L (96h, <i>Pimephales promelas</i>) LC50: 22.1 - 22.8mg/L (96h, <i>Pimephales promelas</i>) LC50: 4.3 - 8.5mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: =4.62mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: =4.2mg/L (96h, <i>Oncorhynchus mykiss</i>) LC50: =7.97mg/L (96h, <i>Brachydanio rerio</i>) LC50: 9.9 - 20.1mg/L (96h,	EC50: =1.8mg/L (48h, <i>Daphnia magna</i>)

		Brachydanio rerio LC50: 4.06 - 5.75mg/L (96h, Lepomis macrochirus) LC50: 4.2 - 4.8mg/L (96h, Lepomis macrochirus) LC50: =4.5mg/L (96h, Lepomis macrochirus) LC50: 5.8 - 7.5mg/L (96h, Pimephales promelas) LC50: 10.2 - 22.5mg/L (96h, Pimephales promelas) LC50: 6.2 - 9.6mg/L (96h, Pimephales promelas) LC50: 13.5 - 18.3mg/L (96h, Poecilia reticulata) LC50: 10.8 - 16.6mg/L (96h, Poecilia reticulata) LC50: =1.31mg/L (96h, Cyprinus carpio)	
Trade Secret	-	LC50: =45.4mg/L (96h, Oncorhynchus mykiss)	-

Terrestrial ecotoxicity

Chemical name	Earthworm	Avian	Honeybees
Trade Secret	Acute Toxicity: LC0 > 1000 mg/kg (Eisenia foetida, 14 Days soil dry weight)	-	-

Persistence and degradability No information available.

Bioaccumulative potential**Bioaccumulation****Component Information**

Chemical name	Partition coefficient
Trade Secret	1.6

Mobility in soil

Mobility No information available.

Other adverse effects

No information available.

Section 13: Disposal considerations

Waste treatment methods**Waste from residues/unused products**

Dispose of product in packaging in a way that is consistent with the EPA Consolidation 30 April 2021 of the Hazardous Substances (Disposal) Notice 2017 and the Act. Treat the substance using a method that changes the characteristics or composition of the substance so that the substance is no longer a hazardous substance; or export the substance from New Zealand as waste. Substances which are hazardous to human health or corrosive to metals – may be discharged into the environment if a tolerable exposure limit has been set for the substance (or a component of that substance); and the discharge does not, after reasonable mixing,

result in the concentration of the substance in an environmental medium exceeding the tolerable exposure limit. If there is no tolerable exposure limit for the substance, then it may only be discharged into the environment if the substance is very rapidly converted to substances that are not hazardous substances.

Environmentally hazardous substances – if the substance, or if it contains a component that is hazardous to the aquatic environment or bioaccumulative and not rapidly degradable, then any component that is bioaccumulative and not rapidly degradable must be removed. The product may only be discharged into the environment if an environmental exposure limit has been set for the substance (or a component of the substance); and the discharge does not, after reasonable mixing, result in the concentration of the substance in an environmental medium exceeding the environmental exposure limit.

Contaminated packaging

For packages that have been in direct contact with hazardous substances, the person must ensure that the package is rendered incapable of containing any substance. It must be disposed of in a manner that is consistent with the requirements for disposal of the substance that it contained, taking into account the material the package is manufactured from.

Packages may only be reused or recycled if:

- the substance has a physical hazard other than corrosive to metal, and has been treated to remove any residual contents of the hazardous substance;
- or for substances that have a health or environmental hazard, or corrosive to metal, the contents of the residue in the package are below the threshold for the substance to be classified as hazardous in the Hazardous Substances (Hazard Classification) Notice 2020.

Section 14: Transport information

IATA

UN number or ID number	UN1760
Proper shipping name	CORROSIVE LIQUID, N.O.S.
Transport hazard class(es)	8
Packing group	II

IMDG

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No information available

Special precautions for user

Please refer to the applicable dangerous goods regulations for additional information

Section 15: Regulatory information

Regulatory information

EPA New Zealand HSNO approval code or group standard To be determined

National regulations

There are no applicable tolerable exposure limits or environmental exposure limits according to the EPA Controls for Hazardous Substances

Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes substances requiring a controlled substance license, and most explosives, vertebrates toxic agents, and certain fumigants. Acutely toxic substances which are a Category 1 or 2, such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information

Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information

Controlled substance licenses are required to possess certain explosives, vertebrate toxic agents and fumigants. See Part 7 of the Health and Safety at Work Regulation 2017 for more information

International Regulations**The Montreal Protocol on Substances that Deplete the Ozone Layer** Not applicable**The Stockholm Convention on Persistent Organic Pollutants** Not applicable**The Rotterdam Convention** Not applicable**International Inventories**

NZIoC	Contact supplier for inventory compliance status.
TSCA	Contact supplier for inventory compliance status.
DSL/NDL	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.
KECL	Contact supplier for inventory compliance status.
PICCS	Contact supplier for inventory compliance status.
AiIC	Contact supplier for inventory compliance status.

Legend:

- NZIoC** - New Zealand Inventory of Chemicals
TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - 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

Section 16: Other information

Prepared by	Environmental, Health and Safety 978-927-5054
Revision date	03-Jan-2023
Revision note	SDS is valid 3 years from revision date. Contact info@neb.com for latest revision

***Indicates updated data since last publication.

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

TWA	TWA (time-weighted average)	STEL	STEL (Short Term Exposure Limit)
Ceiling	Maximum limit value	*	Skin designation
C	Carcinogen		

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)
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

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge and belief at the date of publication. This information is intended only as a guide for safe handling, use, processing, storage, transportation, disposal and release and should not be taken as a warranty or quality specification. The information relates only to the specific material and may not be valid for such material used in combination with any other materials or in any process unless expressly specified in the text. New England Biolabs will not be liable for any damages resulting from handling or contact with the product

End of Safety Data Sheet

New Zealand SDS version information - ZGHS

UL release:

Q2 GHS Revision 7 2022

New Zealand

Partial process, including GHS Wizard, NO TW

Composition

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