

Revision date 06-May-2023

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

Version 9

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

1.1. Product identifier	
Product No	N0454
Product name	CTP solution (100mM)
Pure substance/mixture	Mixture
1.2. Relevant identified uses of the s	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 sat	fety 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]

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

3.1SubstancesNot applicable3.2Mixtures

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 contact	Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.
Ingestion	Rinse mouth.
<u>4.2. Most important symptoms and</u> Symptoms	effects, both acute and delayed No information available.
Effects of Exposure	No information available.

4.3. Indication of any immediate medical attention and special treatment neededNote to physiciansTreat symptomatically.

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 th	e 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.
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 conta	inment 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	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) - W	orkers No information available
Derived No Effect Level (DNEL) - Ge	eneral Public No information available.
Predicted No Effect Concentration	(PNEC) No information available.
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 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.
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
Appearance	Colorless
Color	No information available

Odor Odor threshold	Mild. No information available	
Property_	Values_	Remarks • Method
Melting point / freezing point	No data available	None known
Initial boiling point and boiling rang	eNo 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
Autoignition temperature	No data available	None known
Decomposition temperature		None known
рН	No data available	None known
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	
Liquid Density	No data available	
Vapor density	No data available	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

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

<u>11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008</u> 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, o	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) ATEmix (dermal) ATEmix (inhalation-gas) ATEmix (inhalation-vapor) ATEmix (inhalation-dust/mist)	99,999.00 mg/kg 99,999.00 mg/kg 99,999.00 ppm 99,999.00 mg/l 99,999.00 mg/l
Delayed and immediate effects as w	vell 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 hazard	<u>8 </u>
11.2.1. Endocrine disrupting prop	erties
Endocrine disrupting properties	No information available.
11.2.2. Other information	
Other adverse effects	No information available.
SECTION 12: Ecological in	nformation
12.1. Toxicity	
<u>12.1. Toxicity</u> Ecotoxicity	The environmental impact of this product has not been fully investigated.
	The environmental impact of this product has not been fully investigated. Contains 0 % of components with unknown hazards to the aquatic environment.
Ecotoxicity	Contains 0 % of components with unknown hazards to the aquatic environment.
Ecotoxicity Unknown aquatic toxicity	Contains 0 % of components with unknown hazards to the aquatic environment.
Ecotoxicity Unknown aquatic toxicity <u>12.2. Persistence and degradability</u>	Contains 0 % of components with unknown hazards to the aquatic environment.
Ecotoxicity Unknown aquatic toxicity <u>12.2. Persistence and degradability</u> Persistence and degradability	Contains 0 % of components with unknown hazards to the aquatic environment.
Ecotoxicity Unknown aquatic toxicity <u>12.2. Persistence and degradability</u> Persistence and degradability <u>12.3. Bioaccumulative potential</u>	Contains 0 % of components with unknown hazards to the aquatic environment.
Ecotoxicity Unknown aquatic toxicity <u>12.2. Persistence and degradability</u> Persistence and degradability <u>12.3. Bioaccumulative potential</u> Bioaccumulation	Contains 0 % of components with unknown hazards to the aquatic environment.
Ecotoxicity Unknown aquatic toxicity <u>12.2. Persistence and degradability</u> Persistence and degradability <u>12.3. Bioaccumulative potential</u> Bioaccumulation <u>12.4. Mobility in soil</u>	Contains 0 % of components with unknown hazards to the aquatic environment.
Ecotoxicity Unknown aquatic toxicity <u>12.2. Persistence and degradability</u> Persistence and degradability <u>12.3. Bioaccumulative potential</u> Bioaccumulation <u>12.4. Mobility in soil</u> Mobility in soil	Contains 0 % of components with unknown hazards to the aquatic environment.

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

<u>IATA</u>

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
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	C
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	None
14.7 Maritime transport in bulk	No information available
according to IMO instruments	
according to IMO instruments	Not regulated
according to IMO instruments	
according to IMO instruments <u>RID</u> 14.1 UN/ID No	Not regulated
according to IMO instruments <u>RID</u> 14.1 UN/ID No 14.2 Extended Proper Shipping	Not regulated Not regulated Not regulated
according to IMO instruments <u>RID</u> 14.1 UN/ID No 14.2 Extended Proper Shipping Name	Not regulated Not regulated
according to IMO instruments <u>RID</u> 14.1 UN/ID No 14.2 Extended Proper Shipping Name 14.3 Transport hazard class(es)	Not regulated Not regulated Not regulated
according to IMO instruments <u>RID</u> 14.1 UN/ID No 14.2 Extended Proper Shipping Name 14.3 Transport hazard class(es) 14.4 Packing group	Not regulated Not regulated Not regulated Not regulated
according to IMO instruments <u>RID</u> 14.1 UN/ID No 14.2 Extended Proper Shipping Name 14.3 Transport hazard class(es) 14.4 Packing group 14.5 Environmental hazard	Not regulated Not regulated Not regulated Not regulated
according to IMO instruments <u>RID</u> 14.1 UN/ID No 14.2 Extended Proper Shipping Name 14.3 Transport hazard class(es) 14.4 Packing group 14.5 Environmental hazard 14.6 Special precautions for user	Not regulated Not regulated Not regulated Not regulated Not applicable
According to IMO instruments RID 14.1 UN/ID No 14.2 Extended Proper Shipping Name 14.3 Transport hazard class(es) 14.4 Packing group 14.5 Environmental hazard 14.6 Special precautions for user special Provisions	Not regulated Not regulated Not regulated Not regulated Not applicable
according to IMO instruments RID 14.1 UN/ID No 14.2 Extended Proper Shipping Name 14.3 Transport hazard class(es) 14.4 Packing group 14.5 Environmental hazard 14.6 Special precautions for user special Provisions ADR 14.1 UN number or ID number	Not regulated Not regulated Not regulated Not regulated Not applicable None
according to IMO instruments RID 14.1 UN/ID No 14.2 Extended Proper Shipping Name 14.3 Transport hazard class(es) 14.4 Packing group 14.5 Environmental hazard 14.6 Special precautions for user special Provisions ADR 14.1 UN number or ID number 14.2 UN proper shipping name	Not regulated Not regulated Not regulated Not regulated Not applicable None Not regulated Not regulated
According to IMO instruments RID 14.1 UN/ID No 14.2 Extended Proper Shipping Name 14.3 14.3 Transport hazard class(es) 14.4 Packing group 14.5 Environmental hazard 14.6 Special precautions for user special Provisions ADR 14.1 UN number or ID number 14.2 UN proper shipping name 14.3 Transport hazard class(es)	Not regulated Not regulated Not regulated Not regulated Not applicable None Not regulated Not regulated Not regulated
according to IMO instruments RID 14.1 UN/ID No 14.2 Extended Proper Shipping Name 14.3 Transport hazard class(es) 14.4 Packing group 14.5 Environmental hazard 14.6 Special precautions for user special Provisions ADR 14.1 UN number or ID number 14.2 UN proper shipping name 14.3 Transport hazard class(es) 14.4 Packing group	Not regulated Not regulated Not regulated Not regulated Not applicable None Not regulated Not regulated Not regulated Not regulated Not regulated
according to IMO instrumentsRID14.1 UN/ID No14.2 Extended Proper Shipping Name14.3 Transport hazard class(es)14.4 Packing group14.5 Environmental hazard14.6 Special precautions for user Special ProvisionsADR14.1 UN number or ID number14.2 UN proper shipping name14.3 Transport hazard class(es)14.4 Packing group14.5 Environmental hazard	Not regulated Not regulated Not regulated Not regulated Not applicable None Not regulated Not regulated Not regulated
according to IMO instruments RID 14.1 UN/ID No 14.2 Extended Proper Shipping Name 14.3 Transport hazard class(es) 14.4 Packing group 14.5 Environmental hazard 14.6 Special precautions for user special Provisions ADR 14.1 UN number or ID number 14.2 UN proper shipping name 14.3 Transport hazard class(es) 14.4 Packing group	Not regulated Not regulated Not regulated Not regulated Not applicable None Not regulated Not regulated Not regulated Not regulated Not regulated

SECTION 15: Regulatory information

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

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
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

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