SAFETY DATA SHEET



1M Ethanolamine, pH 8.5

Section	1.	Identification

GHS product identifier	: 1M Ethanolamine, pH 8.5
Other means of identification	: Not available.
Part number/Product code	: 18-1071
Product description	: Biochemical Reagent
Product type	: Liquid.
Relevant identified uses of t	he substance or mixture and uses advised against
Identified uses	: Laboratory use only (research).
Supplier's details	: Pall ForteBio LLC 47661 Fremont Boulevard Fremont, CA 94538 USA Tel: 650.322.1360
e-mail address of person responsible for this SDS	: Linda_Lewis@pall.com
Emergency telephone number (with hours of operation)	: CHEMTREC, U.S. : 1-800-424-9300 International: +1-703-527-3887 24 hours/day, 7 days/week

Section 2. Hazards identification

OSHA/HCS status	: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or mixture	: Not classified.
GHS label elements	
Signal word	: No signal word.
Hazard statements	: No known significant effects or critical hazards.
Precautionary statements	
Prevention	: Not applicable.
Response	: Not applicable.
Storage	: Not applicable.
Disposal	: Not applicable.
Hazards not otherwise classified	: None known.



Section 3. Composition/information on ingredients

Substance/mixture

: Mixture

CAS number/other identifiers

CAS number

: Not applicable.

Ingredient name	%	CAS number
2-Hydroxyethylammonium chloride	≥5 - <10	2002-24-6

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact	:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	1	Flush contaminated skin with plenty of water. Get medical attention if symptoms occur.
Ingestion	:	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/e	ts, acute and delayed	
Potential acute health effe		
Eye contact	No known significant effects or critical hazards.	
Inhalation	No known significant effects or critical hazards.	
Skin contact	No known significant effects or critical hazards.	
Ingestion	No known significant effects or critical hazards.	
Over-exposure signs/sym	<u>IS</u>	
Eye contact	No known significant effects or critical hazards.	
Inhalation	No known significant effects or critical hazards.	
Skin contact	No known significant effects or critical hazards.	
Ingestion	No known significant effects or critical hazards.	
Indication of immediate me	attention and special treatment needed, if necessary	
Notes to physician	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.	
Specific treatments	No specific treatment.	
Protection of first-aiders	No action shall be taken involving any personal risk or without suitable training.	

See toxicological information (Section 11)



Safety Data Sheet

1M Ethanolamine, pH 8.5

Page: 3/9

Section 5. Fire-fighting measures

Extinguishing media	
Suitable extinguishing media	: Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: None known.
Specific hazards arising from the chemical	: No specific fire or explosion hazard.
Hazardous thermal decomposition products	: Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides halogenated compounds
Special protective actions for fire-fighters	: No special measures are required.
Special protective equipment for fire-fighters	: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	:	No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders	:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
Environmental precautions	:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
Methods and materials for co	ont	ainment and cleaning up
Spill	1	Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment

absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

	→
Protective measures	: Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene	: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. See also Section 8 for additional information on hygiene measures.



Section 7. Handling and storage

Conditions for safe storage,	: Store in accordance with local regulations. Store under refrigeration at 2°C to 8°C.
including any	Containers that have been opened must be carefully resealed and kept upright to
incompatibilities	prevent leakage. Do not store in unlabeled containers. Use appropriate containment to
	avoid environmental contamination of the reagent.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name		Exposure limits	
2-Hydroxyethylammonium chloride		None.	
Appropriate engineering controls	accordance with good	em due to the small quantity of material present. Handle in hygiene practices. Wash hands before eating, drinking or e product, and at the end of a work day.	
Environmental exposure controls	: Keep from entering dra material present.	Keep from entering drains. Not likely to pose a problem due to the small quantity of material present.	
Individual protection measure	ires		
Hygiene measures	eating, smoking and u	s and face thoroughly after handling chemical products, before sing the lavatory and at the end of the working period. Ensure and safety showers are close to the workstation location.	
Eye/face protection		Not likely to be needed due to the small quantity of material present. Standard laboratory safety spectacles.	
Skin protection			
Hand protection		l laboratory gloves, appropriate for the overall task being anufacturer for suitability of materials.	
Body protection	: Not likely to be needed laboratory coat.	d due to the small quantity of material present. Standard	
Other skin protection		and any additional skin protection measures should be selected ng performed and the risks involved and should be approved by a ling this product.	
Respiratory protection	: Not likely to be needed	d due to the small quantity of material present.	

Section 9. Physical and chemical properties

Appearance Physical state : Liquid. Color : Not available. Odor : Not available. Not available. **Odor threshold** pН 8.5 **Melting point** : Not available. **Boiling point** : Not available. **Flash point** : Not applicable.

Evaporation rate : Not available.



Flammability (solid, gas)	: Not applicable.
Lower and upper explosive (flammable) limits	: Not applicable.
Vapor pressure	: Not available.
Vapor density	: Not available.
Relative density	: Not available.
Solubility	: Not available.
Partition coefficient: n- octanol/water	: Not available.
Auto-ignition temperature	: Not applicable.
Decomposition temperature	: Not available.
Viscosity	: Not available.

Section 10. Stability and reactivity

Reactivity	: The product is stable under recommended conditions of storage and use.
Chemical stability	: The product is stable under recommended conditions of storage and use.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	: No specific data.
Incompatible materials	: None known.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

There is no data available.

Irritation/Corrosion

There is no data available.

Sensitization

There is no data available.

Mutagenicity

There is no data available.

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

There is no data available.

Teratogenicity

Page: 5/9



Page: 6/9

Section 11. Toxicological information

There is no data available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs	
2-Hydroxyethylammonium chloride	Category 3	Not applicable.	Respiratory tract irritation	
Specific target organ toxicity (repeated expos	sure)	I	I	
There is no data available.				
Aspiration hazard				
There is no data available.				
Information on the likely : Dermal contact routes of exposure	. Eye contact. Inhalation. Ing	gestion.		

Potential acute health effects

Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No known significant effects or critical hazards.
Inhalation	: No known significant effects or critical hazards.
Skin contact	: No known significant effects or critical hazards.
Ingestion	: No known significant effects or critical hazards.

Delayed and immediate effects and also chronic effects from short and long term exposure

<u>Short term exposure</u>	
Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.
<u>Long term exposure</u>	
Potential immediate effects	: No known significant effects or critical hazards.
Potential delayed effects	: No known significant effects or critical hazards.
Potential chronic health eff	ects
General	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates



Page: 7/9

Section 11. Toxicological information

There is no data available.

Section 12. Ecological information

Not likely to pose a serious ecological hazard due to the size of the product and the quantity of material present.

Toxicity

There is no data available.

Persistence and degradability

There is no data available.

Bioaccumulative potential

There is no data available.

Mobility in soil

Soil/water partition : Not available. coefficient (Koc)

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Section 14. Transport information

	DOT Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-
Transport hazard class(es)	-	-	-
Packing group	-	-	-
Environmental hazards	No.	No.	No.
Additional information	-	-	-

AERG : Not applicable.



Safety Data Sheet

1M Ethanolamine, pH 8.5

Page: 8/9

Section 14. Transport information

Special precautions for user	1	Transport within user's premises: always transport in closed containers that are
		upright and secure. Ensure that persons transporting the product know what to do in
		the event of an accident or spillage.

Section 15. Regulatory information

U.S. Federal regulations	:	United States inventor	ry (TSC	A 8b): All com	nponents are I	isted or exemp	ted.
		Clean Water Act (CWA	() 311 : I	Potassium hyd	droxide		
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	:	Not listed					
Clean Air Act Section 602 Class I Substances	:	Not listed					
Clean Air Act Section 602 Class II Substances	:	Not listed					
DEA List I Chemicals (Precursor Chemicals)	:	Not listed					
DEA List II Chemicals (Essential Chemicals)	:	Not listed					
<u>SARA 302/304</u>							
Composition/information	<u>on</u> i	ngredients					
No products were found.							
SARA 304 RQ	:	Not applicable.					
<u>SARA 311/312</u>							
Classification	:	Not applicable.					
Composition/information	<u>on</u> i	ngredients					
Name		-	ire	Sudden	Reactive	Immediate	Delayed

		Sudden release of pressure		(acute) health	Delayed (chronic) health hazard	
2-Hydroxyethylammonium chloride	No.	No.	No.	Yes.	No.	ł

SARA 313

There is no data available.

State regulations

- **Massachusetts**
- **New York**
- **New Jersey**
- Pennsylvania
- : None of the components are listed. : None of the components are listed.

: None of the components are listed.

- : None of the components are listed.
- California Prop. 65

No products were found.



Section 16. Other information

Procedure used to derive the classification

Classification		Justification		
Not classified.				
History		I		
Date of issue mm/dd/yyyy	: 03/30/2017			
Date of previous issue	: 02/15/2015			
Version	: 2			
Prepared by	: KMK Regulatory Services I	1C.		

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