



Safety Data Sheet

TMB Membrane Enhancer

SDS-10161

Rev. Number: 3 Rev. Date: Jul 20, 2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
TMB Membrane Enhancer	50-77-01

Hazardous Reagent

Product Description listed above

Hazardous Reagent Product code

Catalog No. listed above

Recommended Use:

Reference Reagent

Contact Manufacturer:

SeraCare Life Sciences
910 Clopper Road
Gaithersburg, MD 20878

Phone #: (508) 244-6400
US Toll Free: (800) 676-1881

Fax #: (508) 634-3394

Web: www.seracare.com

Email: customerservice@seracare.com

Emergency Telephone Numbers:

AUSTRALIA – POISONS INFORMATION CENTER

Telephone: 13 11 26 - Hours: 24 hours

CANADIAN TRANSPORT EMERGENCY CENTER

Telephone: (1) 613 996 6666 - Hours: 24 hours/day, 7 days/week

UK – THE NATIONAL FOCUS

Telephone: (44) 029 2041 6388 - Hours: 09:00-17:00 GMT

USA - NATIONAL RESPONSE CENTER

Telephone: (1) 800 424 8802 - Hours: 24 hours/day, 7 days/week

CHEMTREC:

CHEMTREC Customer Number:- CCN12505*
For Chemical Emergency Spill, Leak, Fire, Exposure, or Accident
Call CHEMTREC Day or Night
Within USA and Canada: 1-800-424-9300 CCN12505 or
+1 703-527-3887 (collect calls accepted)

2. HAZARD IDENTIFICATION

Hazard Type



Health Hazard

Irritant

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

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GHS Classification	Reproductive, Category 1, H360 Skin Irritant, Category 2; H315 Eye Irritant, Category 2A H319 STOT, Category SE3, H335
Hazard Statements:	H315: Causes skin irritation H319: Causes serious eye irritation H335: May cause respiratory irritation H360: May damage fertility or the unborn child
Precautionary Statements: N-methyl-2-pyrrolidone(NMP)	P261: Avoid breathing dust / fume / gas / mist / vapor / spray P271: Use only in a well-ventilated area. P280:Wear protective gloves; wear eye protection / face protection P264: Wash thoroughly after handling P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P305+P351+P358: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if easy to do and continue rinsing. P321: Specific treatment (see supplementary first aid instructions on this Safety Data Sheet). P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P312: Call a POISON CENTER/doctor if you feel unwell. P308+P313: If exposed or concerned: Get medical advice/attention. P332+P313: If skin irritation occurs: Get medical advice/attention. P337+P313: If eye irritation persists: Get medical advice/attention. P302+P352: IF ON SKIN: Wash with plenty of water. P362+P364: Take off contaminated clothing and wash it before reuse. P405: Store locked up. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P501: Dispose of contents/container in accordance with local / regional / national / international regulations
Symbols and Indications of Danger:	GHS07: Warning  GHS08:Health Hazard 
Principle Route of Exposure:	The substance can be absorbed into the body by inhalation, through the skin and by ingestion

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Acute Effects: Eye	Causes serious eye irritation
Acute Effects: Skin:	Causes skin irritation
Acute Effects: Inhalation:	May cause respiratory irritation
Acute Effects: Ingestion:	No information available.
Chronic Effects:	Data for 1-methyl-2-pyrrolidone (NMP): Chronic use may damage fertility or the unborn child. No specific target organ toxicity repeated exposure hazard.
Additional Information:	The product contains substances which at their given concentration, are considered to be hazardous to health

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>	<u>Classification according to EC No. 1272/2008 and GHS - US</u>
TMB Membrane Enhancer	EDTA	0.03%	60-00-4	Not classified
	N1-methyl-2-pyrrolidone (NMP)*	15 – 35%	872-50-4	Repr. 1B, H360; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H33
	Water	65 – 85%	7789-20-0	Not classified

* **Additional information:** The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4. FIRST AID MEASURES

General Advice:	Wash contaminated clothing before reuse. Seek medical attention if necessary.
Oral Exposure:	If swallowed and symptoms occur, consult doctor.
Inhalation Exposure:	In case if unconsciousness place patient stably in side position for transportation.
Skin Exposure:	Immediately wash with water and soap and rinse thoroughly. If skin irritation occurs, consult a doctor.
Eye Exposure:	Rise opened eye for 15 minutes under running water. If symptoms permit, consult doctor.
Ingestion / swallowing	If swallowed and symptoms occur, consult a doctor.

5. FIRE FIGHTING MEASURES

Extinguishing media:	CO ₂ , extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Unusual Fire and Explosive Hazards:	Not available
Flash Point:	Not available
Auto ignition Temperature:	Not available
Flammability Statement:	Not available
Specific hazards arising from the chemical:	Not available
Protective equipment and precautions for firefighters:	As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

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6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear appropriate personal protective clothing to prevent skin and eye contact. See Section 8.
Environmental Precautions:	Do not allow to enter sewers/surface or ground water.
Method of Containment:	Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust). Dispose of the collected material according to regulations. Ensure adequate ventilation. Dispose of the collected material according to regulations. See section 13.
Methods of Clean-up:	See Method of Containment
Other Information:	See Section for Safe Handling

7. HANDLING AND STORAGE

Handling:	Ensure good ventilation / exhaustion at the workplace. Open and handle receptacle with care. Prevent formation of aerosols.
Storage:	No special requirements. Keep receptacle tightly sealed.

8. EXPOSURE CONTROL

Respiratory Protection:	Not required.
Eye Protection:	Safety goggles.
Skin Protection:	Protective gloves. Protective clothing.
Ingestion:	Do not eat, drink, or smoke during work.

Control parameters:

Components with occupational exposure limits:

872-50-4 N1-methyl-2-pyrrolidone (NMP)

WEEL Long-term value: 10 ppm skin

Ingredients with biological limit values:

872-50-4 N1-methyl-2-pyrrolidone (NMP)

BEI 100mg / L Urine
End of shift, after three consecutive days
1-N1-methyl-2-pyrrolidone
OSHA: biomarker for possible worker exposure

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Liquid
Physical State:	Colorless
Odor:	Odorless
Odor Threshold:	Not Available

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pH:	Not Available
Boiling Point:	100 °C
Evaporation Rate:	Not Available
Vapor Density:	Not Available
Vapor Pressure:	Not Available
Relative Density:	Not determined
Auto-Ignition Temperature:	Product is not self-igniting
Water Solubility:	Not miscible or difficult to mix
Flammability:	Not Available
Flash Point:	Not Available
Viscosity:	Not Available
Oxidizing Properties:	Not Available
Explosive Properties:	Not Available
Additional Parameters:	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability:	Stable under normal conditions
Conditions to avoid:	No further relevant information available
Incompatibility Materials to Avoid:	No further relevant information available
Hazardous Decomposition Products:	No dangerous decomposition products known
Hazardous Polymerization:	Will not occur
Possibility of hazardous reactions:	No dangerous reactions known

11. TOXICOLOGY MEASURES

Acute Toxicity

The following toxicological information is for the hazardous ingredient in pure form.

LD/LC50 values that are relevant for classification:

872-50-4 N1-methyl-2-pyrrolidone (NMP)

LD50 Oral:	3914 mg/kg (rat)
LD50 Dermal:	8000 mg/kg (rabbit)
LC50 Inhalation:	Not Applicable

Chronic Toxicity

Carcinogenicity:	Not Applicable
Irritation:	Irritant to the skin and eyes. May cause an allergic skin reaction.
Corrosivity:	Not Applicable
Sensitization:	Not Applicable
Neurological Effects:	Not Applicable

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Mutagenic Effects:	Not Applicable
Reproductive Effects:	Not Applicable
Developmental Effects:	Not Applicable
Target Organ Effects:	Not Applicable
Other adverse effects:	Not Applicable

12. ECOLOGICAL MEASURES

Ecotoxicity: Aquatic Toxicity	872-50-4 N1-methyl-2-pyrrolidone (NMP): EC50: 1.23 – 1.5 mg/L (water flea)
Persistence/Degradability:	Not Available
Mobility in Environmental Media:	Not Available
Bioaccumulation/Accumulation:	Not Available.
General Notes:	Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system

13. DISPOSAL MEASURES

Waste Disposal Method:	Observe all Federal, State and Local laws concerning health and pollution.
Contaminated Packaging:	Dispose of in compliance with the respective national and local regulations.
US EPA Waste Number:	Not Available

14. TRANSPORTATION MEASURES

DOT:	Not Regulated.
IATA:	Not Regulated.
ADR (road)/ RID (rail):	Not Regulated.
IMDG (sea):	Not Regulated.
General Transport Regulations	Not Regulated.

15. REGULATORY MEASURES

This product is a mixture that may contain one or more hazardous chemicals. The hazardous ingredients listed are only those as required by 29 CFR 1910.1200 (OSHA HCS).

SARA 313

872-50-4 N1-methyl-2-pyrrolidone (NMP):

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (See 40 CFR 61)

Not Listed

State Regulations

California Proposition 65:

None of the ingredients are listed.

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State Right to Know Act

Chemical Name:	N-methyl-2-pyrrolidone (NMP)	EDTA
Massachusetts	Not Listed	Not Listed
New Jersey RTK	Listed	Listed
New Jersey Haz. Sub. List	Listed	Not Listed
Pennsylvania RTK	Listed	Listed
Pennsylvania Haz. Sub. List	Not Listed	Listed
New York	Not Listed	Not Listed
Rhode Island	Not Listed	Not Listed

International Inventories

Chemical Name	N1-methyl-2-pyrrolidone (NMP)	EDTA
TSCA	Listed	Listed
DSL	Listed	Listed
NDSL	Not Listed	Not Listed
EINECS	Not Listed	Not Listed
ELINCS	Not Listed	Not Listed
CHINA	Listed	Listed
KECL	Listed	Listed
JAPAN:	Listed	Listed
AICS	Listed	Listed

EU RegulationsAnnex I Index#:

None of the ingredients are lists.

Regulation (EC) No 1907/2006
ANNEX II

Conditions of restriction: 3, 30

Substances of very high concern
(SVHC) according to REACH,
Article 57

The product is subject to be labeled accordingly with the prevailing version of the regulations;

Classification:N-methyl-2-pyrrolidone (NMP)

Reproductive, Category 1, H360

Skin Irritant, Category 2; H315

Eye Irritant, Category 2A H319

Hazard Statements:

STOT, Category SE3, H335

H315: Causes skin irritation

H319: Causes serious eye irritation

H335: May cause respiratory irritation

H360: May damage fertility or the unborn child

Precautionary Statements:

As noted in Section 2

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**Symbols and Indications of
Danger:**

GHS07: Warning



GHS08: Health Hazard

**Specific Concentration Limits:**

Not available

16. OTHER INFORMATION

The above information is believed to be accurate, complete and current but does not purport to be all inclusive and shall be used as a guide. SeraCare Life Sciences makes no representation or warranties with respect to the product described herein, including but not limited to any implied warranties or merchantability or fitness for a particular use. SeraCare assumes no liability or responsibility and authorizes no other person to assume any additional liability or responsibility as a result of the use of this product or the information contained in the Safety Data Sheet.