



Safety Data Sheet

KIT - TMB Membrane Peroxidase Substrate System 3-Component

SDS-10189

Rev. Number: 2

Rev. Date: Feb 6, 2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
KPL TMB Membrane Peroxidase Substrate System 3-Component	5420-0025 (50-77-00)

Kit Components

Kit Components	Part Code
KPL TMB Peroxidase Substrate Solution	5120-0048 (50-76-01)
KPL TMB Peroxidase Substrate Solution B	5120-0037 (50-65-00)
KPL TMB Membrane Enhancer	5420-0026 (50-77-01)

Recommended Use:

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)



Safety Data Sheet

KPL N₁, N₁, - Dimethylformamide SDS

SDS-10136

Rev. Number: 6 Rev. Date: Feb 4, 2019

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
TMB Solution, 5 L	5120-0052, 50-76-09
TMB Solution, 19.5 L	5120-0051, 50-76-08
TMB Solution, 450 mL	5120-0049, 50-76-02
TMB Solution, 100 mL	5120-0048, 50-76-01
TMB 2-C Elisa Substrate, 60 mL	5120-0019, 37-00-78

Hazardous Reagent

TMB Peroxidase Substrate System

Hazardous Reagent Product code

Catalog No. listed above

Recommended Use: Reference Reagent

Contact

Manufacturer:

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SDS-10136

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2. HAZARD IDENTIFICATION

Hazard Type	Health Hazard
GHS Classification	<p>GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)</p> <p>Flammable liquids (Category 3), H226</p> <p>Acute toxicity, Inhalation (Category 4), H332</p> <p>Acute toxicity, Dermal (Category 4), H312</p> <p>Eye irritation (Category 2A), H319</p> <p>Reproductive toxicity (Category 1B), H360</p>
Hazard Statements:	<p>H332: Harmful if inhaled</p> <p>H319: Causes serious eye irritation</p> <p>H226 Flammable liquid and vapour.</p> <p>H312 + H332 Harmful in contact with skin or if inhaled</p> <p>H360 May damage fertility or the unborn child.</p>
Precautionary Statements:	<p>P201: Obtain special instructions before use.</p> <p>P202: Do not handle until all safety precautions have been read and understood.</p> <p>P264: Wash skin thoroughly after handling.</p> <p>P280: Wear protective gloves/ protective clothing / eye protection/ face protection.</p> <p>P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.</p> <p>P233 Keep container tightly closed.</p> <p>P240 Ground/bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.</p> <p>P242 Use only non-sparking tools.</p> <p>P243 Take precautionary measures against static discharge.</p> <p>P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.</p> <p>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P308 + P313 IF exposed or concerned: Get medical advice/ attention.</p> <p>P337 + P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P363 Wash contaminated clothing before reuse.</p> <p>P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.</p> <p>P403 + P235 Store in a well-ventilated place. Keep cool.</p> <p>P405 Store locked up.</p>

SDS-10136

Rev. Number: 6

Rev. Date: Feb 4, 2019

P50 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified or not covered by GHS: Rapidly absorbed through skin.

Symbols and Indications of Danger:

GHS08

GHS07

GHS02

Danger



Principle Route of Exposure:	The substance can be absorbed into the body by inhalation and through the skin.
Acute Effects: Eye	May cause redness and irritation
Acute Effects: Skin:	May be absorbed
Acute Effects: Inhalation:	Abdominal pain; Diarrhea; Nausea. Vomiting; Facial flushing. .
Inhalation Risk:	A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C.
Short-Term Exposure	The substance is irritating to the eyes. The substance may cause effects on the liver, resulting in jaundice.
Long-Term Exposure	The substance may have effects on the liver, resulting in impaired functions. Animal tests show that this substance possibly causes toxic effects upon human reproduction.
Ingestion:	Do not eat, drink, smoke when using this product.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
TMB Peroxidase Substrate	N1, N1, - Dimethylformamide (DMF)C ₃ H ₇ NO	26%	68-12-2

Classification	Repr. 1B, Acute Tox. 4, Eye Irrit. 2A, EC-No: 200-679-5 Index-No.:616-001-00-X Flam. Liq. 3; H226, H312 + H332, H319, H360
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SDS-10136

Rev. Number: 6

Rev. Date: Feb 4, 2019

4. FIRST AID MEASURES

General Advice:	Wash contaminated clothing before reuse. Seek medical attention if necessary.
Ingestion First Aid:	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician
Inhalation Exposure:	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician
Skin Exposure:	Remove contaminated clothes. Rinse and then wash skin with water and soap. Refer for medical attention.
Eye Exposure:	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unusual Fire and Explosive Hazards:	Not considered flammable but may burn at high temperatures, product is not explosive
Flash Point:	Closed cup: 58°C
Auto ignition Temperature:	Not Available
Flammability Statement:	Not Available
Specific hazards arising from the chemical:	Fire hazard: not considered flammable but may burn at high temperature Explosion: Product is not explosive Reactivity: Hazardous reactions will not occur under normal condition
Protective equipment and precautions for firefighters:	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face-piece operated in the pressure demand or other positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes and clothing. Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. For personal protection see section 8.
Environmental Precautions:	Prevent entry to sewers and public water
Method of Containment and Clean-up	Clean up spills with dikes or absorbents to prevent migration and entry into sewers or Streams. Clean up of spills immediately and dispose of waste safely. Transfer spilled material to suitable container for disposal. Contact competent authorities after a spill.
Other Information:	Not Available

7. HANDLING AND STORAGE

Handling:	Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and when leaving work. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe mist/vapor/spray. Avoid contact with skin, eyes and clothing.
Storage:	Keep container closed when not in use. Store in a dry, cool place. Keep away from incompatible materials including strong acids, strong bases, strong oxidizers.

SDS-10136

Rev. Number: 6

Rev. Date: Feb 4, 2019

8. EXPOSURE CONTROL

Respiratory Protection:	Ventilation, local exhaust; if irritation is experienced, approved respiratory protection should be worn
Eye Protection:	Safety goggles
Skin Protection:	Protective gloves, protective clothing.
Ingestion:	Rinse mouth. Do not eat, drink, or smoke during handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear to slightly bluish colored solution.
Physical State:	Liquid
Odor:	Not Available
Odor Threshold:	Not Available
pH:	Not Available
Boiling Point:	100°C
Evaporation Rate:	Not Available
Vapor Density:	Not Available
Vapor Pressure:	Not Available
Relative Density:	Not Available
Auto-Ignition Temperature:	Not Available
Water Solubility:	Completely miscible
Flash Point:	Not Available
Viscosity:	Not Available
Oxidizing Properties:	Not Available
Explosive Properties:	Not Available
Additional Parameters	See Datasheet/Product Insert for other Product Information.

10. STABILITY AND REACTIVITY

Chemical Stability:	This material is stable under normal conditions.
Conditions to avoid:	Extremely high or low temperatures, a, incomparable materials and direct sunlight.
Incompatibility Materials to Avoid:	Strong acids, strong bases and strong oxidizing agents
Hazardous Decomposition Products:	None known
Hazardous Polymerization:	Not Available
Possibility of hazardous reactions:	Not Available

11. TOXICOLOGY MEASURES

Acute Toxicity

The toxicological risks are minor due to the low concentration of hazardous ingredients. The following toxicological information is for the hazardous ingredient in pure form.

LD50 Oral: Not classified

LD50 Dermal: Not classified

LC50 Inhalation: Not classified

Chronic Toxicity

Carcinogenicity: Not classified

Irritation: Not classified

An eye and skin irritant

Corrosivity: Not classified

Sensitization: Not classified

Neurological Effects: No data available

Mutagenic Effects: No data available

Reproductive Effects: May damage fertility or the unborn child.

Developmental Effects: No data available

Target Organ Effects: Not classified

Other adverse effects: Not classified

12. ECOLOGICAL MEASURES

Ecotoxicity: Not classified

Persistence/Degradability: Not established

Mobility in Environmental Media: Not Available

**Bioaccumulation/
Accumulation:** N,N-Dimethylformamide (CAS # 68-12-2)
BCF Fish 1 0.3 –1.2
Log Pow -1.028

13. DISPOSAL MEASURES

Waste Disposal Method: Dispose of contents / container in accordance with local, regional, national, and international regulation

Contaminated Packaging: Avoid contact with skin and clothing. Place contaminated packaging in a break proof outer vessel and dispose on in compliance with national and local regulations.

US EPA Waste Number: Not Available

SDS-10136

Rev. Number: 6

Rev. Date: Feb 4, 2019

14. TRANSPORTATION MEASURES

DOT:	Not regulated for transport
IATA:	Not regulated for transport
ADR (road)/ RID (rail):	Not regulated for transport
IMDG (sea):	Not regulated for transport
General Transport Regulations	Not regulated for transport

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

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). N,N-Dimethylformamide (conc. >1%); CAS # 68-12-2

REACH (EU) 1907/2006

N,N-Dimethylformamide (conc. >1%); CAS # 68-12-2 included in the Candidate List of Substances of Very High Concern (SVHC)

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

This product contains no chemicals which are subject to the reporting requirements of the Clean Air Act2

State Regulations

California Proposition 65:

This product contains the following Proposition 65 chemicals

This product contains the following Proposition 65 chemicals: N,N-Dimethylformamide. Type of Toxicity: Cancer. CAS no. 68-12-2. Listed: 27 Oct 2017

State Right to Know Act

Chemical Name	N,N,-Dimethylformamide
Massachusetts:	Listed
New Jersey:	Listed
Pennsylvania:	Listed
New York:	Not Applicable
Rhode Island:	Not Applicable

International Inventories

Chemical Name	N,N,-Dimethylformamide
TSCAL:	Listed
DSL:	Listed
NDSL:	Not Listed
EINECS:	Listed

SDS-10136

Rev. Number: 6

Rev. Date: Feb 4, 2019

CHINA: Listed
KECL: Listed
JAPAN: Listed
AICS: Listed

EU Regulations**Annex I Index#:** 616-001-00-X

Classification: Flammable liquids (Category 3), H226
 Acute toxicity, Inhalation (Category 4), H332
 Acute toxicity, Dermal (Category 4), H312
 Eye irritation (Category 2A), H319
 Reproductive toxicity (Category 1B), H360
 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Regulation (EC) No 1272/2008

REACH (EU) 1907/2006

This Product contains N,N-Dimethylformamide (conc. > 1%); CAS # 68-12-2, included in the Candidate List of Substances of Very High Concern (SVHC)

Flam. Liq. 3; Acute Tox. 4; Eye Acute Tox. Acute toxicity Eye Irrit. Eye irritation Flam. Liq. Flammable liquids H226
 Flammable liquid and vapor.

Irrit. 2A; Repr. 1B; H226, H312

+ H332, H319, H360

90 - 100 %

H312 Harmful in contact with skin.

H312 + H332 Harmful in contact with skin or if inhaled

H319 Causes serious eye irritation.

H332 Harmful if inhaled.

H360 May damage fertility or the unborn child.

Hazard Statements:

H226 Flammable liquid and vapor.

H312 + H332 Harmful in contact with skin or if inhaled

H319 Causes serious eye irritation.

H360 May damage fertility or the unborn child

Precautionary Statements:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

SDS-10136

Rev. Number: 6

Rev. Date: Feb 4, 2019

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308 + P313 IF exposed or concerned: Get medical advice/ attention.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

P50 Dispose of contents/ container to an approved waste disposal plant.

Hazards not otherwise classified or not covered by GHS: Rapidly absorbed through skin.

Symbols and Indications of Danger:

GHS02

GHS07

GHS08

Danger

Specific Concentration Limits:

Not Applicable

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.

Date of preparation / last revision: Feb 4, 2019 / 6



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

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2. HAZARD IDENTIFICATION

Hazard Type



Health Hazard

Irritant

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

SDS-10161

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

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

SDS-10161

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

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.

SDS-10161

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

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

SDS-10161

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

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

SDS-10161

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

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.

SDS-10161

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

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

SDS-10161

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

**Symbols and Indications of
Danger:**

GHS07: Warning



GHS08: Health Hazard

**Specific Concentration Limits:**

Not available

16. OTHER INFORMATION

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