

KIT - KPL SureLINK™ Fluorescein FITC Labeling kit

Rev. Number: 2 Rev. Date: Jan 10, 2017

Product Code Product Description: KPL SureLINK™ Fluorescein (FITC) Labeling Kit 5610-0020, 82-00-01 **Kit Components** Part Code KPL SureLINK™ Fluorescein (FITC) 5620-0020, 82-01-01 KPL Carbonate-Bicarbonate Buffer Capsules 5640-0007, 82-01-02 KPL N1, N1, - Dimethylformamide 5640-0008, 82-01-03 **KPL** Reaction Tubes 5640-0009, 82-01-05 **KPL Spin-Pure Filters** 5640-0001, 60-00-53 Recommended Reagent Use: SeraCare Life Sciences Phone #: (508) 244-6400 Contact 910 Clopper Road US Toll Free: (800) 676-1881 Manufacturer: Gaithersburg, MD 20878 Fax #: (508) 634-3394 Web: www.seracare.com Email: customerservice@seracare.com **Emergency Telephone Numbers:** Telephone: 13 11 26 - Hours: 24 hours AUSTRALIA - POISONS INFORMATION CENTER Telephone: (1) 613 996 6666 - Hours: 24 hours/day, 7 days/week CANADIAN TRANSPORT EMERGENCY CENTER Telephone: (44) 029 2041 6388 - Hours: 09:00-17:00 GMT **UK - THE NATIONAL FOCUS** Telephone: (1) 800 424 8802 - Hours: 24 hours/day, 7 days/week **USA - NATIONAL RESPONSE CENTER** CHEMTREC: CHEMTREC Customer Number:- CCN12505*

1. PRODUCT AND COMPANY IDENTIFICATION

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)

KPL SureLink™ (FITC) Rev. Number: 2 Rev. Date:Dec 16, 2016

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:				Product Code	
KPL SureLink™ Fluorscein (FITC)				5620-0019, 82-01-00	
KPL SureLink™ Fluorscein (FITC)					5620-0020, 82-01-01
	X	,			
Hazardous Reagent Not Available		Hazardous Reagent Product code Not Available			
Recommended Use:	Reagent				
Contact Manufacturer:	SeraCare Life Scien 910 Clopper Road	r Road	Phone #:	(508) 244-6400 US Toll Free: (800) 676-1881	
	Gaithersburg, MD 20878		Fax #:	(508) 634-3394	
			Web:	www.seracare.com	
			Email:	customerservice@seracare.co	m
Emergency Telepho	ne Numbers	<u>:</u>			
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: 0	9:00-17:00 GMT	
USA - NATIONAL RI		ENTER	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		GHS Classification in accordance with 29 CFR 1910 (OSHA HCS): The product contai no substances which at their given concentration, are considered to be hazardous to health or the environment.			
		GHS Classific	cation in accorda	ance with 29 CFR 1910 (OSHA	HCS)
GHS Classification		Not Applicable	:		
		The product contains no substances which at their given concentration, are considered to be hazardous to health or the environment as per: GHS Classification in accordance wit 29 CFR 1910 (OSHA HCS) Regulation (EC) No 1272/2008.			

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Hazard Statements:	Not Applicable
Precautionary Statements:	Not Applicable
Symbols and Indications of Danger:	Not Applicable
Principle Route of Exposure:	Not Applicable
Acute Effects: Eye	May cause redness and irritation
Acute Effects: Skin:	May be absorbed. May cause dry skin / redness. May cause an allergic skin reaction.
Acute Effects: Inhalation:	May cause irritation to the respiratory tract. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Acute Effects: Ingestion:	May be harmful if swallowed.
Chronic Effects:	Not Available
Additional Information:	Not Available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>	
SureLINK™ FITC	Fluorescein 5-isothiocyanate	100%	3326-32-7	
GHS Classification:	Not Applicable:			
	The product contains no substances which at their given concentration, are considered to be hazardous to health or the environment as per: GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Regulation (EC) No 1272/2008			
	EC#: 2222-042-0			
	Substance Name : 2-(6-hydroxy-3-oxo-(3H)-xanthen-9-yl)-5-isothiocyanatobenzoic acid			
	Molecular Formula : C ₂₁ H ₁₁ NO ₅ S			
	This substance is not classified in the Annex I of Directive 67/548/EEC as such, but it may be included in one of the group entries.			
	4. FIRST AID ME	ASURES		
General Advice	Wash contaminated clothing before reus	se. Consult a physician i	f irritation persists.	
Oral Exposure	Never give anything by mouth to an unconscious person. Rinse mouth. Refer for medical attention.			
Inhalation Exposure	Remove subject to fresh air. If not breathing, give artificial respiration. Seek medical attention if necessary.			
Skin Exposure	Flush skin with copious amounts of water. Consult a physician.			
Eye Exposure	Flush eyes with copious amounts of water.			
5. FIRE FIGHTING MEASURES				
Extinguishing media:	Use extinguishing measures that are surrounding environment. Water spra dioxide.			

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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:	Carbon oxides; Nitrogen Oxides; Sulphur Oxides
Protective equipment and precautions for firefighters:	Wear self-contained breathing apparatus for firefighting if necessary.
	6. ACCIDENTAL RELEASE MEASURES
Personal Precautions:	Avoid contact with skin, eyes and clothing. Avoid dust formation. Avoid breaking vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Should not be released into the environment.
Method of Containment:	Wear respiratory protection, eye protection, hand protection and body protection. Carefully sweep up, gather and remove. Avoid rising dust. Afterwards ventilate area and wash spill site.
Methods of Clean-up:	Clean-up with copious amounts of water.
Other Information:	Wear respiratory protection, eye protection, hand protection and body protection.
	7. HANDLING AND STORAGE
Handling:	Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation in confined areas. Fine dust dispersed in air may ignite. Ensure adequate ventilation.
Storage:	Desiccation required. Store at -20 °C. Protect material from long-term exposure to light; maybe exposed to light for short periods of time. Keep in properly labelled containers
	8. EXPOSURE CONTROL
Respiratory Protection:	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Eye Protection:	Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards.
Skin Protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. Full contact Material: Nitrile rubber; Minimum layer thickness: 0.11 mm Break through time: 480 min.; Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales @kcl.de, test method:EN374 If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

scenario.

Ingestion

Do not eat, drink, or smoke while handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Solid
Physical State:	Solid
Odor:	Not Available
Odor Threshold:	Not Available
pH:	Not available
Boiling Point:	Not Available
Evaporation Rate:	Not Available
Vapor Density:	Not Available
Vapor Pressure:	Not Available
Relative Density:	Not Available
Auto-Ignition Temperature:	Not Available
Water Solubility:	Dilutable
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 recommended storage conditions.	
Conditions to avoid:	Heat; Exposure to Moisture	
Incompatibility Materials to Avoid:	Alcohols, Strong Bases, Amines, Acids, Strong Oxidizing agents	
Hazardous Decomposition Products:	Not Available	
Hazardous Polymerization:	Will not occur	
Possibility of hazardous reactions:	Not under normal processing	

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 Available
LD50 Dermal:	Not Available
LC50 Inhalation:	Not Available

Chronic Toxicity

Carcinogenicity:	Not Available
Irritation:	Not Available
Corrosivity:	Not Available
Sensitization:	Not Available
Neurological Effects:	Not Available
Mutagenic Effects:	Not Available
Reproductive Effects:	Not Available
Developmental Effects:	Not Available
Target Organ Effects:	Not Available
Other adverse effects:	Not Available

12. ECOLOGICAL MEASURES

Ecotoxicity:	Not Available
Persistence/Degradability:	Not Available
Mobility in Environmental Media:	Not Available
Bioaccumulation/ Accumulation:	Not Available

Waste Disposal Method:

13. DISPOSAL MEASURES

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.

Contaminated Packaging: Dispose of as unused product.

US EPA Waste Number: Not Available

14. TRANSPORTATION MEASURES

DOT:	Not dangerous goods
IATA:	Not dangerous goods
ADR (road)/ RID (rail):	Not Available
IMDG (sea):	Not dangerous goods
General Transport Regulations	Not dangerous goods

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). This product contains no chemical or chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

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

Not Available

State Regulations

California Proposition 65:

Chemical Name	Fluorescein 5- isothiocyanate
International Inventories	
Rhode Island:	Not Listed
New York:	Not Listed
Pennsylvania:	Not Listed
New Jersey:	Not Listed
Massachusetts:	Not Listed
Chemical Name	Fluorescein 5- isothiocyanate
State Right to Know Act	
This product contains the following Proposition 65 chemicals	None listed

	isotniocyanate
TSCA:	Listed
DSL:	Listed
NDSL:	Not Listed
EINECS:	Listed
CHINA:	Listed
KECL:	Not Listed
JAPAN:	Listed
AICS:	Listed

EU Regulations

Annex I Index#: Classification	Not Applicable EC#: 222-042-0
	CAS#: 3326-32-7
	Substance Name: 2-(6-hydroxy-3-oxo-(3H)-xanthen-9-yl)-5-isothiocyanatobenzoic acid

Molecular Formula : C₂₁H₁₁NO₅S

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Precautionary Statements:	This substance is not classified in the Annex I of Directive 67/548/EEC as such, but it may be included in one of the group entries.
Symbols and Indications of Danger:	None
Specific Concentration Limits: Export and Import European Priority List	Not Applicable This substance is not listed in the Annex I of Regulation (EC) No 649/2012. This substance is not listed in a priority list (as foreseen under Council Regulation (EEC) No 793/93 on the evaluation and control of the risks of existing substances.).

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.

KPL Carbonate-bicarbonate Buffer Capsules

Rev. Number: 2 Rev. Date: Jan 18, 2017

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description	n:		P	roduct Code
KPL Carbonate-bicarbonate Buffer Capsules		640-0007, 82-01-02		
Hazardous Reagent	Hazardous Reagent		azardous Reagent Product code	
Product Description listed above		С	atalog 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	
	Calificisburg, MD 20070	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 ho	ours/day, 7 days/week
UK – THE NATIONAL FOCUS		Telephone:	(44) 029 2041 6388 - Hours: 09:0	00-17:00 GMT
USA - NATIONAL RESPONSE CENTER		Telephone:	(1) 800 424 8802 - Hours: 24 ho	ours/day, 7 days/week
CHEMTREC:	For Chemica Call CHEMT Within USA a	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	substances v	GHS Classification in accordance with 29 CFR 1910 (OSHA HCS): The product contains substances which at their given concentration, are considered to be hazardous to health or the environment.		
	GHS Classi	fication in accor	dance with 29 CFR 1910 (OSHA H	CS)
GHS Classification	GHS Classifi	cation in accorda	nce with 29 CFR 1910 (OSHA HCS)	
	Eye irritation	(Category 2A), H	1319	

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Rev. Number: 2 Rev. Date: Jan 18, 2017

Hazard Statements:	H319: Causes serious eye irritation.
Precautionary Statements:	P264: Wash skin thoroughly after handling.
	P280: Wear eye protection/ face protection.
	P280: Wear protective gloves
	P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P337 + P313: If eye irritation persists: Get medical advice/ attention.

Symbols and Indications of Danger:



GHS07 Warning

Principle Route of Exposure:	Not Applicable
Acute Effects: Eye	May cause redness and irritation
Acute Effects: Skin:	May be absorbed. Dry skin; Redness
Acute Effects: Inhalation:	May cause irritation to the respiratory tract.
Acute Effects: Ingestion:	May be harmful if swallowed.
Chronic Effects:	Not Available
Additional Information:	Not Available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	CHEM		<u>% Weight</u>	<u>CAS #:</u>
KPL Carbonate-bicarbona Buffer Capsules	hate Proprietary Component (Trade Secret Per 29 CFR 1910.1200i 1)		30 – 36%	Proprietary
GHS Classification:	Eye Irritation. 2	2A;		
H319: Causes serious eye irritation.				
		4. FIRST AID	MEASURES	
General Advice		Consult a physician. S Move out of dangerou		t to the doctor in attendance.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.			
In case of skin contact		Wash off with soap ar	nd plenty of water. Consult	a physician.
In case of eye contact		Rinse thoroughly with physician.	plenty of water for at least	15 minutes and consult a
If swallowed		Never give anything b water. Consult a phys		s person. Rinse mouth with

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Rev. Number: 2 Rev. Date: Jan 18, 2017

Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labelling		
Indication of any immediate me attention and special treatment needed			
	5. FIRE FIGHTING MEASURES		
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.		
Special hazards arising from the substance Carbon oxides; sodium oxides or mixture			
Advice for firefighters	r firefighters Wear self-contained breathing apparatus for fire-fighting if necessary.		
Further information No data available			
	6. ACCIDENTAL RELEASE MEASURES		
Personal Precautions:	Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.		
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Should not be released into the environment		
Method of Containment:	Wear respiratory protection, eye protection, hand protection and body protection. Carefully sweep up, gather and remove. Avoid rising dust. Afterwards ventilate area and wash spill site.		
Methods of Clean-up:	Clean-up with copious amounts of water.		
Other Information:	Wear respiratory protection, eye protection, hand protection and body protection		
7. HANDLING AND STORAGE			
Handling:	Handle in accordance with good industrial hygiene and safety practice. Avoid dust formation in confined areas. Fine dust dispersed in air may ignite. Take precautionary measures against static discharges. Remove all sources of ignition. Ensure adequate ventilation		
Storage:	Keep container tightly closed in a dry and well-ventilated place. Keep away from heat. Keep in properly labelled containers.		
8. EXPOSURE CONTROL			
Control parameters	For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator. For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).		
Personal protective	Eye / face: safety glasses with side shields		
equipment	Skin protection: handle gloves		
	Body protection: Impervious clothing. The type of protective equipment must be selected according to concentration and amount of the dangerous substance at the work place.		
ç	9. PHYSICAL AND CHEMICAL PROPERTIES		
Appearance:	Solid		
Physical State:	Form: Solid		

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Odor:	Not Available
Odor Threshold:	Not Available
pH:	Not available
Boiling Point:	Not Available
Evaporation Rate:	Not Available
Vapor Density:	Not Available
Vapor Pressure:	Not Available
Relative Density:	Not Available
Auto-Ignition Temperature:	Not Available
Water Solubility:	Dilutable
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 recommended storage conditions.
Incompatibility Materials to Avoid:	Strong Acids
Hazardous Decomposition Products:	Not Available
Hazardous Polymerization:	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 Available
LD50 Dermal:	Not Available
LC50 Inhalation:	Not Available
Chronic Toxicity	
Carcinogenicity:	Not Available
Irritation:	Not Available
Corrosivity:	Not Available
Sensitization:	Not Available
Neurological Effects:	Not Available

Rev. Number: 2 Rev. Date: Jan 18, 2017

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Not Available
Not Available
Not Available
Not Available
Not Available

12. ECOLOGICAL MEASURES

Ecotoxicity:	Not Available		
Persistence/Degradability:	Not Available		
Mobility in Environmental Media:	Not Available		
Bioaccumulation/ Accumulation:	Not Available		
13. DISPOSAL MEASURES			
Waste Disposal Method:	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.		
Contaminated Packaging:	Dispose of as unused product.		
US EPA Waste Number:	Not Available		
14. TRANSPORTATION MEASURES			
DOT:	Not dangerous goods		
IATA:	Not dangerous goods		
ADR (road)/ RID (rail):	Not Available		
IMDG (sea):	Not dangerous goods		
General Transport Regulations	Not dangerous goods		

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). This product contains no chemical or chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

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

Not Available

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Rev. Number: 2 Rev. Date: Jan 18, 2017

State Regulations

This product contains the following Proposition 65 chemicals	Not Listed
State Right to Know Act	
Chemical Name	ProprietaryComponent (Trade Secret per 29 CFR1910.1200 i 1)
Massachusetts:	Not Listed
New Jersey:	Listed
Pennsylvania:	Listed
New York:	Not Available
Rhode Island:	Not Available
International Inventories	
Chemical Name	ProprietaryComponent (Trade Secret per 29 CFR1910.1200 i 1)
TSCA:	Not Available
DSL:	Not Available
NDSL:	Not Available
EINECS:	Not Available
CHINA:	Not Available
KECL:	Not Available
JAPAN:	Not Available
AICS:	Not Available
EU Regulations	
Annex I Index#:	Not Available
Classification / Hazard Statements:	H319: Causes serious eye irritation
Precautionary Statements:	P264: Wash skin thoroughly after handling.
	P280: Wear eye protection/ face protection. Wear protective gloves
	P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several mi
	Remove contact lenses, if present and easy to do. Continue rinsing.

Rev. Number: 2 Rev. Date: Jan 18, 2017

Symbols and Indications of Danger:

GHS07: Warning



Not Available

Not Available

Specific Concentration Limits: Export and Import European Priority List

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.

sera care Safety Data Sheet

SDS-10293

KPL N₁, N₁, - Dimethylformamide SDS

Rev. Number: 4 Rev. Date: Oct 15, 2018

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description: KPL N ₁ , N ₁ , - Dimethylformamide			Product Code 5640-0008 (82-01-03)	
Hazardous Reagent		Hazard	ous Reagent Product code	
Product Description listed above			Catalog No. listed above	
Recommended Use:	Reference Reagent			
Contact Manufacturer:	SeraCare Life Sciences 910 Clopper Road	Phone #:	(508) 244-6400 US Toll Free: (800) 676-1881	
	Gaithersburg, MD 20878	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)

Rev. Number: 4 Rev. Date: Oct 15, 2018

2. HAZARD IDENTIFICATION

Hazard Type	Health Hazard
	GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
GHS 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
Hazard Statements:	H226 Flammable liquid and vapour.
	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/ vapours/ spray.
	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 + P35 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.

Rev. Number: 4

Rev. Date: Oct 15, 2018

Symbols and Indications of	GH
Danger:	сц

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

GHS02 GHS07

GHS08

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>
N ₁ , N ₁ , - Dimethylformamide (DMF)	C ₃ H ₇ NO	100%	68-12-2
Classification	EC-No: 200-679-5		
	Index-No.:616-001-00-X		
	Flam. Liq. 3;		
	Acute Tox. 4;		
	Eye Irrit. 2A;		
	Repr. 1B;		
	H226, H312 + H332, H319, H360		

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

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Eye Exposure:	First rinse with plenty of water for several minutes (remove co possible), then take to a doctor.	ontact lenses if easily
	5. FIRE FIGHTING MEASURES	
Extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carb	on dioxide.
Unusual Fire and Explosive Hazards:	Not Available	
Flash Point:	Closed cup: 58°C	
Auto ignition Temperature:	Not Available	
Flammability Statement:	Not Available	
Specific hazards arising from the chemical:	Not available	
Protective equipment and precautions for firefighters:	Wear self-contained breathing apparatus for firefighting if nec cool by spraying with water.	essary: keep drums, etc.,
	6. ACCIDENTAL RELEASE MEASURES	
Personal Precautions:	Use personal protective equipment. Avoid breathing vapors, n ventilation. Remove all sources of ignition. Evacuate personne vapors accumulating to form explosive concentrations. Vapors areas. For personal protection see section 8.	el to safe areas. Beware of
Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Do not let	product enter drains.
Method of Containment and Clean-up	Contain spillage, and then collect with an electrically protected brushing and place in container for disposal according to local	
	7. HANDLING AND STORAGE	
Handling:	Avoid contact with skin and eyes. Avoid inhalation of vapor or Keep away from sources of ignition - No smoking. Take meas of electrostatic charge.	
Storage:	Keep container tightly closed in a dry and well-ventilated plac opened must be carefully resealed and kept upright to preven Handle and store under inert gas. Storage class (TRGS 510): Flammable liquids	
	8. EXPOSURE CONTROL	
Respiratory Protection:	Where risk assessment shows air-purifying respirators are apprespirator with multi- purpose combination (US) or type ABEK cartridges as a backup to engineering controls.	
	If the respirator is the sole means of protection, use a full-face respirators and components tested and approved under approsimation standards such as NIOSH (US) or CEN (EU).	
Eye Protection:	Face shield and safety glasses Use equipment for eye protect under appropriate government standards such as NIOSH (US	

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Skin Protection:	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.	
	Full contact Material: butyl-rubber Minimum layer thickness: 0.3 mm Break through time: 480 min Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M Splash contact	1)
	Material: Nature latex/chloroprene Minimum layer thickness: 0. 65 min	.6 mm Break through time:
	Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M) D-36124 Eichenzell, phone +49 (0)6659 87300, test method: E	
	If used in solution, or mixed with other substances, and under EN 374, contact the supplier of the CE approved gloves. This is only and must be evaluated by an industrial hygienist and safe specific situation of anticipated use by our customers. It should offering an approval for any specific use scenario.	recommendation is advisory ty officer familiar with the
Ingestion:	Do not eat, drink, or smoke during handling.	
	9. PHYSICAL AND CHEMICAL PROPERTIES	
Appearance:	Form liquid: , clear;	
	Color: Colorless	
Physical State:	Liquid	
Odor:	Amine-like	
Odor Threshold:	Not Available	
pH:	6.0 – 7.0	
Boiling Point:	153°C	
Melting Point:	- 61°C	
Evaporation Rate:	Not Available	
Vapor Density:	2.52 (air = 1)	
Vapor Pressure:	3.60 hPa (2.70 mmHg) at 20°C (68°F)	
	5.16 hPa (3.87 mmHg) at 25°C (77°F)	
Relative Density:	0.944 g/mL	
Auto-Ignition Temperature:	Not available	
Water Solubility:	Completely miscible	
Flash Point:	58°C – closed cup	
Viscosity:	Not Available	

Oxidizing Properties:

Explosive Properties:

Not Available

Not Available

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10. STABILITY AND REACTIVITY

Chemical Stability:	This material is stable under recommended storage conditions.
Conditions to avoid:	Avoid excess heat, sources of ignition and direct sunlight.
Incompatibility Materials to Avoid:	Strong Oxidizing agents
Hazardous Decomposition Products:	Hazardous decomposition products formed under fire conditions Carbon oxides, Nitrogen oxides (NOx)
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:	Rat - 2,800 mg/kg
LD50 Dermal:	Rabbit - 1,500 mg/kg
LC50 Inhalation:	4 h - 9 - 15 mg/L

Chronic Toxicity

Carcinogenicity:	This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.			
Irritation:	An eye and skin irritant			
Corrosivity:	No Data Available			
Sensitization:	No Data Available			
Neurological Effects:	No Data Available			
Mutagenic Effects:	No Data Available			
Reproductive Effects:	May cause congenital malformation in the fetus			
Developmental Effects:	No Data Available			
Target Organ Effects:	Eyes, Skin, and Respiratory Tract, Liver and Kidneys			
Other adverse effects:	RTECS: LQ2100000			
	Warning: intolerance for alcohol can occur up to 4 days after N,N-dimethylformamide exposure. N,N-dimethylformamide is considered to be a potent liver toxin., Vomiting, Diarrhea, Abdominal pain. The chemical, physical, and toxicological properties have not been thoroughly investigated.			
12. ECOLOGICAL MEASURES				
Ecotoxicity: Toxicity to Fish	LC50 - Oncorhynchus mykiss (rainbow trout) - 9,000 - 13,000 mg/l - 96 h			
	LC50 - Lepomis macrochirus (Bluegill) - 6,700 - 7,500 mg/l - 96 h			
	LC50 - Pimephales promelas (fathead minnow) - 10,400 - 10,800 mg/l - 96 h			
	1050 One on the method of the contract (1000 more) 000 h			

LC50 - Oncorhynchus mykiss (rainbow trout) - 9,800 mg/l - 96 h

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	LC50 - Lepomis macrochirus (Bluegill) - 6,300 mg/l - 96 h	
	LC50 - Pimephales promelas (fathead minnow) - 10,600 mg/l - 96 h	
Ecotoxicity: Toxicity to	EC50 - Daphnia magna (Water flea) - 9,600 - 13,100 mg/l - 48 h	
daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 15,700 mg/l - 48 h	
Ecotoxicity: Algae	LC50 - Desmodesmus subspicatus (green algae) - > 500 mg/l - 96 h	
Persistence/Degradability:	> 90% Readily biodegradable	
Mobility in Environmental Media:	Not Data Available	
Bioaccumulation/ Accumulation:	No Data Available	
	13. DISPOSAL MEASURES	
Waste Disposal Method:	Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposa service to dispose of this material.	
Contaminated Packaging:	Dispose of in compliance with the respective national and local regulations.	
US EPA Waste Number:	Not Available	
	14. TRANSPORTATION MEASURES	
DOT:	UN number: 2265, Class: 3 Packing group: III Proper shipping name: N,N-Dimethylformamide Reportable Quantity (RQ):100 lbs	
IATA:	UN number: 2265, Class: 3 Packing group: III Proper shipping name: N,N-Dimethylformamide	
ADR (road)/ RID (rail):	Not Available	
IMDG (sea):	UN number: 2265, Class: 3 Packing group: III Proper shipping name: N,N-Dimethylformamide	
General Transport Regulations	Data for 100% Dimethylformamide: UN-Number:2265 Shipping name: N,N-Dimethylformamide Hazard Identification Number: 30 Class: 3 (Flammable Liquids) Packing Group: III (low danger) Danger Label: 3	

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).

<u>SARA 313</u>

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains no chemical or chemicals which are subject to the reporting requirements of the Act and Title 40n of the Code of Federal Regulations, Part 372.

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

This product contains N,N-DIMETHYLFORMAMIDE which are subject to the reporting requirements of the Clean Air Act

State Regulations

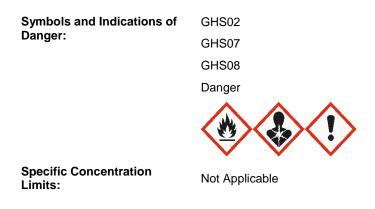
California Proposition 65: This product contains the following Proposition 65 chemicals	This product contains the following Proposition 65 chemicals: N,N-Dimethylformamide. Type of Toxicity: Cancer. CAS no. 68-12-2. Listed: 27 Oct 2017
<u>State Right to Know Act</u> Chemical Name	N,N,-Dimethylformamide
Massachusetts:	Listed
New Jersey:	Listed
Pennsylvania:	Listed
New York:	Listed
Rhode Island:	Listed
International Inventories	
Chemical Name	N,N,-Dimethylformamide
TSCAL:	Listed
DSL:	Listed
NDSL:	Not Listed
EINECS:	Listed
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)

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Flam. Liq. 3; Acute Tox. 4; Eye Irrit. 2A; Repr. 1B; H226, H312 + H332, H319, H360 90 - 100 %	Acute Tox. Acute toxicity Eye Irrit. Eye irritation Flam. Liq. Fla Flammable liquid and vapor.	ammable liquids H226
	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 rea	ad 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/ equi	ipment.
	P242 Use only non-sparking tools.	
	P243 Take precautionary measures against static discharge.	
	P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.	
	P264 Wash skin thoroughly after handling.	
	P271 Use only outdoors or in a well-ventilated area.	
	P280 Wear protective gloves/ protective clothing/ eye protect	ion/ face protection.
	P303 + P361 + P35 IF ON SKIN (or hair): Take off immediate Rinse skin with water/shower.	ely all contaminated clothing.
	P304 + P340 + P312 IF INHALED: Remove person to fresh a breathing. Call a POISON CENTER/doctor if you feel unwell.	
	P305 + P351 + P338 IF IN EYES: Rinse cautiously with wate Remove contact lenses, if present and easy to do. Continue	
	P308 + P313 IF exposed or concerned: Get medical advice/	attention.
	P337 + P313 If eye irritation persists: Get medical advice/ att	ention.
	P363 Wash contaminated clothing before reuse.	
	P370 + P378 In case of fire: Use dry sand, dry chemical or al extinguish.	cohol-resistant foam to
	P403 + P235 Store in a well-ventilated place. Keep cool.	
	P405 Store locked up.	
	P50 Dispose of contents/ container to an approved waste dis	posal plant.

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



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.