



# Safety Data Sheet

KIT - KPL SureLINK™ Fluorescein FITC Labeling kit

SDS-10309

Rev. Number: 2

Rev. Date: Jan 10, 2017

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
KPL SureLINK™ Fluorescein (FITC) Labeling Kit	5610-0020, 82-00-01

### Kit Components

Kit Components	Part Code
KPL SureLINK™ Fluorescein (FITC)	5620-0020, 82-01-01
KPL Carbonate-Bicarbonate Buffer Capsules	5640-0007, 82-01-02
KPL N <sub>1</sub> , N <sub>1</sub> , - Dimethylformamide	5640-0008, 82-01-03
KPL Reaction Tubes	5640-0009, 82-01-05
KPL Spin-Pure Filters	5640-0001, 60-00-53

### 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](http://www.seracare.com)

**Email:** [customerservice@seracare.com](mailto: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 SureLink™ (FITC)

SDS-10310

Rev. Number: 2 Rev. Date: Dec 16, 2016

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
KPL SureLink™ Fluorescein (FITC)	5620-0019, 82-01-00
KPL SureLink™ Fluorescein (FITC)	5620-0020, 82-01-01

### Hazardous Reagent

Not Available

### Hazardous Reagent Product code

Not Available

### 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

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Telephone: 13 11 26 - Hours: 24 hours

CANADIAN TRANSPORT EMERGENCY CENTER

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

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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 contains no substances which at their given concentration, are considered to be hazardous to health or the environment.

### GHS Classification in accordance 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 with 29 CFR 1910 (OSHA HCS) Regulation (EC) No 1272/2008.

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<b>Hazard Statements:</b>	Not Applicable
<b>Precautionary Statements:</b>	Not Applicable
<b>Symbols and Indications of Danger:</b>	Not Applicable
<b>Principle Route of Exposure:</b>	Not Applicable
<b>Acute Effects: Eye</b>	May cause redness and irritation
<b>Acute Effects: Skin:</b>	May be absorbed. May cause dry skin / redness. May cause an allergic skin reaction.
<b>Acute Effects: Inhalation:</b>	May cause irritation to the respiratory tract. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
<b>Acute Effects: Ingestion:</b>	May be harmful if swallowed.
<b>Chronic Effects:</b>	Not Available
<b>Additional Information:</b>	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<sub>21</sub>H<sub>11</sub>NO<sub>5</sub>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 MEASURES

<b>General Advice</b>	Wash contaminated clothing before reuse. Consult a physician if irritation persists.
<b>Oral Exposure</b>	Never give anything by mouth to an unconscious person. Rinse mouth. Refer for medical attention.
<b>Inhalation Exposure</b>	Remove subject to fresh air. If not breathing, give artificial respiration. Seek medical attention if necessary.
<b>Skin Exposure</b>	Flush skin with copious amounts of water. Consult a physician.
<b>Eye Exposure</b>	Flush eyes with copious amounts of water.

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Water spray. Alcohol-resistant foam. Dry powder. Carbon dioxide.
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<b>Unusual Fire and Explosive Hazards:</b>	Not Available
<b>Flash Point:</b>	Not Available
<b>Auto ignition Temperature:</b>	Not Available
<b>Flammability Statement:</b>	Not Available
<b>Specific hazards arising from the chemical:</b>	Carbon oxides; Nitrogen Oxides; Sulphur Oxides
<b>Protective equipment and precautions for firefighters:</b>	Wear self-contained breathing apparatus for firefighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	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.
<b>Environmental Precautions:</b>	Prevent further leakage or spillage if safe to do so. Should not be released into the environment.
<b>Method of Containment:</b>	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.
<b>Methods of Clean-up:</b>	Clean-up with copious amounts of water.
<b>Other Information:</b>	Wear respiratory protection, eye protection, hand protection and body protection.

## 7. HANDLING AND STORAGE

<b>Handling:</b>	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.
<b>Storage:</b>	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

<b>Respiratory Protection:</b>	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).
<b>Eye Protection:</b>	Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards.
<b>Skin Protection:</b>	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: Dermatrill® (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.

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**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**

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

**12. ECOLOGICAL MEASURES**

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

**13. DISPOSAL MEASURES**

<b>Waste Disposal Method:</b>	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
<b>Contaminated Packaging:</b>	Dispose of as unused product.
<b>US EPA Waste Number:</b>	Not Available

**14. TRANSPORTATION MEASURES**

<b>DOT:</b>	Not dangerous goods
<b>IATA:</b>	Not dangerous goods
<b>ADR (road)/ RID (rail):</b>	Not Available
<b>IMDG (sea):</b>	Not dangerous goods
<b>General Transport Regulations</b>	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).**

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**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:**

This product contains the following  
Proposition 65 chemicals      None listed

**State Right to Know Act**

<b>Chemical Name</b>	<b>Fluorescein 5- isothiocyanate</b>
<b>Massachusetts:</b>	Not Listed
<b>New Jersey:</b>	Not Listed
<b>Pennsylvania:</b>	Not Listed
<b>New York:</b>	Not Listed
<b>Rhode Island:</b>	Not Listed

**International Inventories**

<b>Chemical Name</b>	<b>Fluorescein 5- isothiocyanate</b>
<b>TSCA:</b>	Listed
<b>DSL:</b>	Listed
<b>NDSL:</b>	Not Listed
<b>EINECS:</b>	Listed
<b>CHINA:</b>	Listed
<b>KECL:</b>	Not Listed
<b>JAPAN:</b>	Listed
<b>AICS:</b>	Listed

**EU Regulations**

<b>Annex I Index#:</b>	Not Applicable
<b>Classification</b>	EC#: 222-042-0
	CAS#: 3326-32-7
	Substance Name: 2-(6-hydroxy-3-oxo-(3H)-xanthen-9-yl)-5-isothiocyanatobenzoic acid
	Molecular Formula : C <sub>21</sub> H <sub>11</sub> NO <sub>5</sub> S

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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.

**Precautionary Statements:** None

**Symbols and Indications of Danger:** None

**Specific Concentration Limits:** Not Applicable

**Export and Import** This substance is not listed in the Annex I of Regulation (EC) No 649/2012.

**European Priority List** 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.





# Safety Data Sheet

KPL Carbonate-bicarbonate Buffer Capsules

SDS-10311

Rev. Number: 2

Rev. Date: Jan 18, 2017

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Description:</b>	<b>Product Code</b>
KPL Carbonate-bicarbonate Buffer Capsules	5640-0007, 82-01-02

### 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

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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

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 Classification in accordance with 29 CFR 1910 (OSHA HCS)

### GHS Classification

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
Eye irritation (Category 2A), H319

SDS-10311

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>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
KPL Carbonate-bicarbonate Buffer Capsules	Proprietary Component (Trade Secret Per 29 CFR 1910.1200i 1)	30 – 36%	Proprietary

**GHS Classification:** Eye Irritation. 2A;  
H319: Causes serious eye irritation.

### 4. FIRST AID MEASURES

**General Advice** Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**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 and plenty of water. Consult a physician.

**In case of eye contact** Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

<b>Most important symptoms and effects, both acute and delayed</b>	The most important known symptoms and effects are described in the labelling
<b>Indication of any immediate medical attention and special treatment needed</b>	No data available

## 5. FIRE FIGHTING MEASURES

<b>Suitable extinguishing media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Special hazards arising from the substance or mixture</b>	Carbon oxides; sodium oxides
<b>Advice for firefighters</b>	Wear self-contained breathing apparatus for fire-fighting if necessary.
<b>Further information</b>	No data available

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions:</b>	Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
<b>Environmental Precautions:</b>	Prevent further leakage or spillage if safe to do so. Should not be released into the environment
<b>Method of Containment:</b>	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.
<b>Methods of Clean-up:</b>	Clean-up with copious amounts of water.
<b>Other Information:</b>	Wear respiratory protection, eye protection, hand protection and body protection

## 7. HANDLING AND STORAGE

<b>Handling:</b>	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
<b>Storage:</b>	Keep container tightly closed in a dry and well-ventilated place. Keep away from heat. Keep in properly labelled containers.

## 8. EXPOSURE CONTROL

<b>Control parameters</b>	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).
<b>Personal protective equipment</b>	Eye / face: safety glasses with side shields 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Solid
<b>Physical State:</b>	Form: Solid

<b>Odor:</b>	Not Available
<b>Odor Threshold:</b>	Not Available
<b>pH:</b>	Not available
<b>Boiling Point:</b>	Not Available
<b>Evaporation Rate:</b>	Not Available
<b>Vapor Density:</b>	Not Available
<b>Vapor Pressure:</b>	Not Available
<b>Relative Density:</b>	Not Available
<b>Auto-Ignition Temperature:</b>	Not Available
<b>Water Solubility:</b>	Dilutable
<b>Flammability:</b>	Not Available
<b>Flash Point:</b>	Not Available
<b>Viscosity:</b>	Not Available
<b>Oxidizing Properties:</b>	Not Available
<b>Explosive Properties:</b>	Not Available
<b>Additional Parameters:</b>	Not Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability:</b>	Stable under recommended storage conditions.
<b>Incompatibility Materials to Avoid:</b>	Strong Acids
<b>Hazardous Decomposition Products:</b>	Not Available
<b>Hazardous Polymerization:</b>	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.

<b>LD50 Oral:</b>	Not Available
<b>LD50 Dermal:</b>	Not Available
<b>LC50 Inhalation:</b>	Not Available

### Chronic Toxicity

<b>Carcinogenicity:</b>	Not Available
<b>Irritation:</b>	Not Available
<b>Corrosivity:</b>	Not Available
<b>Sensitization:</b>	Not Available
<b>Neurological Effects:</b>	Not Available

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<b>Mutagenic Effects:</b>	Not Available
<b>Reproductive Effects:</b>	Not Available
<b>Developmental Effects:</b>	Not Available
<b>Target Organ Effects:</b>	Not Available
<b>Other adverse effects:</b>	Not Available

## 12. ECOLOGICAL MEASURES

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

## 13. DISPOSAL MEASURES

<b>Waste Disposal Method:</b>	Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
<b>Contaminated Packaging:</b>	Dispose of as unused product.
<b>US EPA Waste Number:</b>	Not Available

## 14. TRANSPORTATION MEASURES

<b>DOT:</b>	Not dangerous goods
<b>IATA:</b>	Not dangerous goods
<b>ADR (road)/ RID (rail):</b>	Not Available
<b>IMDG (sea):</b>	Not dangerous goods
<b>General Transport Regulations</b>	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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**State Regulations****California Proposition 65:**

This product contains the following  
Proposition 65 chemicals Not Listed

**State Right to Know Act**

<b>Chemical Name</b>	<b>ProprietaryComponent (Trade Secret per 29 CFR1910.1200 i 1)</b>
<b>Massachusetts:</b>	Not Listed
<b>New Jersey:</b>	Listed
<b>Pennsylvania:</b>	Listed
<b>New York:</b>	Not Available
<b>Rhode Island:</b>	Not Available

**International Inventories**

<b>Chemical Name</b>	<b>ProprietaryComponent (Trade Secret per 29 CFR1910.1200 i 1)</b>
<b>TSCA:</b>	Not Available
<b>DSL:</b>	Not Available
<b>NDSL:</b>	Not Available
<b>EINECS:</b>	Not Available
<b>CHINA:</b>	Not Available
<b>KECL:</b>	Not Available
<b>JAPAN:</b>	Not Available
<b>AICS:</b>	Not Available

**EU Regulations**

<b>Annex I Index#:</b>	Not Available
<b>Classification / Hazard Statements:</b>	H319: Causes serious eye irritation
<b>Precautionary Statements:</b>	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 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313: If eye irritation persists: Get medical advice/ attention.

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**Symbols and Indications of  
Danger:**

GHS07: Warning



<b>Specific Concentration Limits:</b>	Not Available
<b>Export and Import</b>	Not Available
<b>European Priority List</b>	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.



# Safety Data Sheet

KPL N<sub>1</sub>, N<sub>1</sub>, - Dimethylformamide SDS

SDS-10293

Rev. Number: 2 Rev. Date: Jan 12, 2017

## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product Description:</b>	<b>Product Code</b>
KPL N <sub>1</sub> , N <sub>1</sub> , - Dimethylformamide	5460-0008 (82-01-03)

### 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

### GHS Classification

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

Flammable liquids (Category 3), H226

Acute toxicity, Inhalation (Category 4), H332

Acute toxicity, Dermal (Category 4), H312



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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 + 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

Warning



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<b>Principle Route of Exposure:</b>	The substance can be absorbed into the body by inhalation and through the skin.
<b>Acute Effects: Eye</b>	May cause redness and irritation
<b>Acute Effects: Skin:</b>	May be absorbed
<b>Acute Effects: Inhalation:</b>	Abdominal pain; Diarrhea; Nausea. Vomiting; Facial flushing. .
<b>Inhalation Risk:</b>	A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20 °C.
<b>Short-Term Exposure</b>	The substance is irritating to the eyes. The substance may cause effects on the liver, resulting in jaundice.
<b>Long-Term Exposure</b>	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.
<b>Ingestion:</b>	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 <sub>1</sub> , N <sub>1</sub> , - Dimethylformamide (DMF)	C <sub>3</sub> H <sub>7</sub> NO	100%	68-12-2
<b>Classification</b>	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

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

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media:</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unusual Fire and Explosive Hazards:</b>	Not Available
<b>Flash Point:</b>	Closed cup: 58 °C
<b>Auto ignition Temperature:</b>	Not Available
<b>Flammability Statement:</b>	Not Available

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**Specific hazards arising from the chemical:** Not available

**Protective equipment and precautions for firefighters:** Wear self-contained breathing apparatus for firefighting if necessary: keep drums, etc., cool by spraying with water.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

**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 vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13)

## 7. HANDLING AND STORAGE

**Handling:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge.

**Storage:** Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. 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 appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls.

If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**Eye Protection:** Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

**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

Material: Nature latex/chloroprene Minimum layer thickness: 0.6 mm Break through time: 65 min

Material tested: Lapren® (KCL 706 / Aldrich Z677558, Size M) data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, 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

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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.

**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:** Data for 100% Ethyl Alcohol: 363 °C

**Water Solubility:** Completely miscible

**Flash Point:** 58 °C – closed cup

**Viscosity:** Not Available

**Oxidizing Properties:** Not Available

**Explosive Properties:** Not Available

## 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 (NO<sub>x</sub>)

**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

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**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**

<b>Ecotoxicity: Toxicity to Fish</b>	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
	LC50 - Oncorhynchus mykiss (rainbow trout) - 9,800 mg/l - 96 h
	LC50 - Lepomis macrochirus (Bluegill) - 6,300 mg/l - 96 h
	LC50 - Pimephales promelas (fathead minnow) - 10,600 mg/l - 96 h
<b>Ecotoxicity: Toxicity to daphnia and other aquatic invertebrates</b>	EC50 - Daphnia magna (Water flea) - 9,600 - 13,100 mg/l - 48 h
	EC50 - Daphnia magna (Water flea) - 15,700 mg/l - 48 h
<b>Ecotoxicity: Algae</b>	LC50 - Desmodesmus subspicatus (green algae) - > 500 mg/l - 96 h
<b>Persistence/Degradability:</b>	> 90% Readily biodegradable
<b>Mobility in Environmental Media:</b>	Not Data Available
<b>Bioaccumulation/Accumulation:</b>	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 disposal service to dispose of this material.

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**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  
Not Available

**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).**

### 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 40 of the Code of Federal Regulations, Part 372.

### 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 Not Listed

#### State Right to Know Act

**Chemical Name** N,N,-Dimethylformamide

**Massachusetts:** Listed

**New Jersey:** Listed

**Pennsylvania:** Listed

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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

**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.  
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clothing. Rinse skin with water/shower.

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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

Warning



**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.