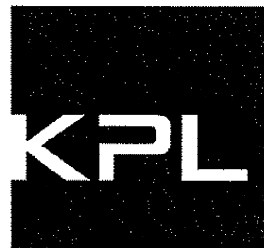


# MATERIAL SAFETY DATA SHEET



Issue Date: July 25, 2006  
Revision Date: August 28, 2007

## **IDENTIFICATION**

SureLINK™ Chromophoric Biotin Labeling Kit (1mg)

## **Reagents that May Contain Hazardous Materials**

10x Modification Buffer  
SureLINK™ Chromophoric Biotin, 1mg  
DMF

## **CATALOG NO.**

86-00-01

## **Catalog No.**

86-02-01  
86-01-02  
86-03-01

**See Attached Material Safety Data Sheets**



# Material Safety Data Sheet

<b>NFPA</b>	<b>Personal protective equipment</b>	<b>Transport Symbol</b>
		Not regulated.

Preparation Date No data available

Revision Date 23-Jul-2005

Revision Number 1

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name** 10X Modification Buffer  
**Product code** 86-02-01  
**Chemical Name** 10X Modification Buffer  
**Common Name** No information available.

**Recommended use** No information available.

**Contact manufacturer**

KPL  
910 Clopper Road  
Gaithersburg, Maryland 20878  
USA  
301-948-7755 • 800-638-3167  
FAX 301-948-0169  
www.kpl.com

**Supplier**

KPL  
910 Clopper Road  
Gaithersburg, Maryland 20878  
USA  
301-948-7755 • 800-638-3167  
FAX 301-948-0169  
www.kpl.com

**Emergency telephone number** 301-948-7755; 800-638-3167

## 2. HAZARDS IDENTIFICATION

**Emergency Overview**

Irritating to eyes.

**Physical state** Liquid

**Odor** None.

**Potential health effects**

**Principle Routes of Exposure** No information available

**Acute effects**

**Eyes** Moderately irritating to the eyes.  
**Skin** May cause skin irritation and/or dermatitis.  
**Inhalation** Not hazardous by inhalation.  
**Ingestion** May be harmful if swallowed.

**Chronic effects** Prolonged skin contact may cause skin irritation and/or dermatitis.

See Section 11 for additional Toxicological information.

**Main symptoms** Redness.

**Aggravated Medical Conditions** No information available

**Interactions with other chemicals** No information available

**Potential environmental effects** There is no known ecological information for this product

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Hazardous components

CHEMICAL NAME	CAS No.	WEIGHT %
Sodium chloride	7647-14-5	10 - 50
Sodium azide	26628-22-8	0.05%

### 4. FIRST AID MEASURES

**General advice** Show this safety data sheet to the doctor in attendance.

**Eye contact** In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Skin contact** Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes.

**Inhalation** Immediate medical attention is not required.

**Ingestion** Drink plenty of water. Do not induce vomiting without medical advice. Consult a physician if necessary.

**Notes to physician** Treat symptomatically.

### 5. FIRE-FIGHTING MEASURES

**Flammable properties** Not applicable.

**Suitable extinguishing media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media** No information available

**Specific hazards arising from the chemical**  
In the event of fire and/or explosion do not breathe fumes.

**Protective equipment and precautions for firefighters**  
Wear self-contained breathing apparatus and protective suit.

**NFPA**

**Health** 1

**Flammability** 0

**Instability** 0

### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions** Avoid contact with skin, eyes and clothing.

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<b>Environmental precautions</b>	Prevent product from entering drains. Prevent further leakage or spillage if safe to do so.
<b>Methods for containment</b>	Contain or absorb leaking liquid with sand or earth or other suitable substance.
<b>Methods for clean-up</b>	Soak up with inert absorbent material. Clean contaminated surface thoroughly.
<b>Other information</b>	Not applicable

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid contact with skin, eyes and clothing. Ensure adequate ventilation.
<b>Storage</b>	Keep containers tightly closed in a cool, well-ventilated place.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure guidelines

**Engineering controls** Ensure adequate ventilation, especially in confined areas

### Personal protective equipment

**Eye/face protection** Safety glasses with side-shields.

**Skin protection** Long sleeved clothing. Protective gloves.

**Respiratory protection** No special protective equipment required. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit.

### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	No information available	
<b>Odor</b>	None.	
<b>Odor threshold</b>	No information available	
<b>Physical state</b>	Liquid.	
<b>pH</b>	7.4	
<b>Flash point</b>	No data available	
<b>Autoignition temperature</b>	No data available	
<b>Boiling point/range (°F) VALUE</b>	~212	
<b>Boiling point/range (°C) VALUE</b>	~100	
<b>Melting point/range (°F) VALUE</b>	~32	
<b>Melting point (°C) VALUE</b>	~0	
<b>Flammability Limits in Air</b>	<b>Upper</b> No data available	<b>Lower</b> No data available
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	No information available	
<b>Evaporation Rate</b>	No data available	
<b>Vapor pressure</b>		
<b>Vapor density</b>		
<b>Specific Gravity</b>	~1.0	
<b>Density</b>	~1.0	
<b>Bulk density</b>	~1.0	
<b>Solubility</b>	No information available.	
<b>Water solubility</b>	Miscible with water	
<b>Partition coefficient (n-octanol/water)</b>	No data available.	
<b>Viscosity</b>	No information available.	

## 10. STABILITY AND REACTIVITY

<b>Chemical stability</b>	Stable under normal conditions.
<b>Conditions to avoid</b>	Temperatures above 60°C.
<b>Incompatible materials</b>	Incompatible with strong acids and bases.
<b>Hazardous decomposition products</b>	Carbon oxides. Hydrogen chloride gas. oxides of phosphorus.
<b>Possibility of hazardous reactions</b>	None under normal processing

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

**Product Information**                      Irritating to eyes.

### Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium chloride	3 g/kg Rat 4 g/kg Mouse	10 g/kg Rabbit	42 g/m <sup>3</sup> Rat 1 h

Sodium azide	14 mg/kg human	23060 ug/kg mouse (subcutaneous)	32.4 mg/kg mouse
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<b><u>Chronic toxicity</u></b>	Sodium azide—5460 mg/kg (rat, oral)
<b>Carcinogenicity</b>	There are no known carcinogenic chemicals in this product
<b>Legend:</b>	
<b>Irritation</b>	Irritating to eyes.
<b>Corrosivity</b>	Not applicable.
<b>Sensitization</b>	Not applicable.
<b>Neurological effects</b>	Not applicable.
<b>Mutagenic effects</b>	Sodium azide is mutagenic in humans at 30 mmol/L
<b>Reproductive effects</b>	Not applicable.
<b>Developmental effects</b>	Not applicable.
<b>Target Organ effects</b>	None.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**  
 Toxic to fish (trout, minnow) at 3.92 mg/L

<b>Persistence/Degradability</b>	Inherently biodegradable.
<b>Bioaccumulation/ Accumulation</b>	Does not bioaccumulate.
<b>Mobility in Environmental Media</b>	Soluble.

**13. DISPOSAL CONSIDERATIONS**

<b>Waste Disposal Method</b>	Dispose of in accordance with National, State and Local regulations
<b>Contaminated packaging</b>	Empty containers should be taken for local recycling, recovery or waste disposal
<b>US EPA Waste Number</b>	No data available

**14. TRANSPORT INFORMATION**

**DOT** Not regulated.

**15. REGULATORY INFORMATION**

**International Inventories**

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	CHINA	KECL	PICCS	AICS
Sodium chloride	X	X	-	X	-	X	X	X	X	X

**TSCA** Complies  
**DSL** Complies  
**NDSL** Complies  
**EINECS** Complies  
**ELINCS** Does not Comply  
**ENCS** Complies  
**CHINA** Complies  
**KECL** Complies  
**PICCS** Complies  
**AICS** Complies

**USA**

**Federal Regulations**

**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 and Title 40n of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazardous Categorization**

**Acute Health Hazard** Yes  
**Chronic Health Hazard** Yes  
**Fire Hazard** No  
**Sudden Release of Pressure Hazard** No  
**Reactive Hazard** No

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

None

**State Regulations**

**California Proposition 65**

None

**State Right-to-Know**

**Legend:**

X - Listed

**Canada**

**WHMIS hazard class**

Non-controlled

<b>16. OTHER INFORMATION</b>
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**Revision summary**                      No information available

Disclaimer

**The information provided on this MSDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.**

**End of MSDS**



# MATERIAL SAFETY DATA SHEET



Issue Date: 19 September, 2006  
Revision Date: 19 September, 2006

1. **IDENTIFICATION** **CATALOG NO.**  
SureLINK™ Chromophoric Biotin 86-00-03, 86-01-01, 86-01-02

2. **COMPOSITION AND INGREDIENTS INFORMATION**

<u>Reagent</u>	<u>Mol. Weight %</u>	<u>CAS #</u>
Customized synthesized Chromophoric Biotin C38H50N8O10S	810.92	N/A

3. **HAZARDS IDENTIFICATION**  
*Precautionary Statement:*  
*Medical Conditions Aggravated:*  
*Primary Routes of Entry:*  
PEL: NA  
TLV: NA  
LD50: NA  
Carcinogenicity: NA  
Toxicity: NA  
RTECS #: NA  
Acute Effects: NA  
Chronic Effects: NA  
Target Organs: NA

4. **FIRST-AID PROCEDURES**  
Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult give oxygen  
Eye and Skin Contact: Immediately flush eyes with copious amounts of water for at least 15 minutes. Immediately wash skin with soap and copious amounts of water  
Oral: If swallowed, wash out mouth with water provided person is conscious. Call a physician.  
Other: Wash contaminated clothing before re-use

5. **FIRE FIGHTING PROCEDURES / MEASURES**  
Extinguishing Media: Foam, Alcohol Foam, CO<sub>2</sub>, Dry Chemical and Water/Fog  
Unusual Fire and Explosion Hazards: N/A  
Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

*Lower Flammable Limit:*  
*Upper Explosion Limit:*  
*Lower Explosion Limit:*  
*Flashpoint:*  
*Autoignition Temperature:*  
*Fire Extinguishing Media:*  
*Unusual Fire/Explosion Data:*

6. **ACCIDENTAL RELEASE MEASURES**  
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. Sweep up, place in a bag, and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

MSDS: 86-00-03, 86-01-01, 86-01-02

7. **EXPOSURE CONTROL (PERSONAL PROTECTIVE EQUIPMENT)**

Inhalation: Adverse health effects from vapors and spray mist in poorly ventilated areas may include irritation of the mucous membranes of the nose, throat, respiratory tract and symptoms of headache and nausea.

Eye Contact: Chemical Safety goggles suggested. Direct contact with product may result in eye irritation.

Skin Contact: Chemical resistant gloves suggested. Prolonged and repeated contact with product may cause skin irritation.

Respiratory Protection: None required if good ventilation is maintained. Otherwise wear MSHA/NIOSH approved respirator suitable for vapor or mist concentrations encountered.

Wear appropriate NIOSH/MSHA-approved respirator, chemical-resistant gloves, safety goggles, and other protective clothing. Safety shower and eye bath. Mechanical exhaust required. Wash thoroughly after handling.

8. **HANDLING AND STORAGE**

Store desiccated at or below room temperature.

9. **PHYSICAL AND CHEMICAL PROPERTIES**

*Percent Purity*: >97%

*Boiling Point*: NA

*Melting Point*: NA

*Freezing Point*: NA

*pH*: NA

*Solubility*: NA

*Vapor Density*: NA

*Vapor Pressure*: NA

10. **STABILITY AND REACTIVITY INFORMATION**

Stable. Avoid strong oxidizing agents. *Stability*: stable when stored desiccated

*Incompatibility*: Hazardous Decomposition Components:

11. **TOXICOLOGICAL INFORMATION**

Hazardous Decomposition Products: Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides

Hazardous Polymerization: Will not occur

Incompatibility Materials to Avoid: Acid Chlorides, Oxidizing Agents, Chloroformates, Reducing Agents Halogens

12. **ECOLOGICAL INFORMATION**

N/A

13. **DISPOSAL GUIDELINES / WASTE DISPOSAL**

Observe all Federal, State and Local laws concerning health and pollution.

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state, and local environmental regulations.

14. **TRANSPORT INFORMATION**

N/A

15. **REGULATORY INFORMATION AND CONSIDERATIONS**

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 g 2.C1.

16. **OTHER**

The above information is believed to be correct, but does not purport to be all inclusive and shall be used only as a guide. KPL shall not be held liable for any damage resulting from handling or from contact with the above product. Users should make their own investigations to determine the suitability of the information for their particular purposes