

# Safety Data Sheet



Revision Date: 7/31/2014

SDS #: SDS-10248-01

DNADetector™ HRP Chemiluminescent Blotting Kit

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Description:

DNADetector™ HRP Chemiluminescent Blotting Kit

### Product Code

54-30-00

### Kit Components:

Detector Block Solution	
Biotin Wash Solution Concentrate (10X)	50-63-05
LumiGLO® Chemiluminescent Substrate A	50-59-00
LumiGLO Substrate B	50-60-00
Formamide Hybridization Buffer	50-86-09
Detector Block Powder	72-01-03
Detector Block Solution	71-83-02
HRP, Streptavidin	474-3003

**Recommended Use** Kit (See Attached Safety Data Sheets For Components Listed Above)

**Contact Manufacturer** KPL, Inc.  
910 Clopper Road  
Gaithersburg, Maryland 20878  
USA

**Phone #:** 1-301-948-7755  
**Fax #:** 1-301-948-0169  
**Web:** [www.kpl.com](http://www.kpl.com)  
**Email:** [kplmsds@seracare.com](mailto:kplmsds@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



Revision Date: 6/27/2014

SDS #: 10139

Biotin Wash Solution Concentrate (10X)

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Description	Product Code
Biotin Wash Solution Concentrate (10X)	50-63-05
	50-63-06
	50-63-07
	50-63-09

**Hazardous Reagent**  
None

**Hazardous Reagent Product code**  
None

**Recommended Use** Reagent

**Contact Manufacturer** KPL, Inc.  
910 Clopper Road  
Gaithersburg, Maryland 20878  
USA

**Phone #:** 1-301-948-7755  
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+1 703-527-3887 (collect calls accepted)

## 2. HAZARD IDENTIFICATION

**Hazard Type** Not Hazardous

**Principle Route of Exposure** The substance can be absorbed into the body by inhalation, through the skin and by ingestion.

**Acute Effects: Eye:** May cause redness and irritation

**Acute Effecta: Skin:** May be absorbed. Dry skin. Redness.

**Acute Effects: Inhalation:** Not Applicable

SDS #: 10139

Biotin Wash Solution Concentrate (10X)

**Acute Effects: Ingestion:** May cause nausea, vomiting and drowsiness

**Chronic Effects:** Not Applicable

**Additional Information** The product contains no substances which at their given concentration, are considered to be hazardous to health.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
Biotin Wash Solution Concentrate (10X)	Not Applicable	Not Applicable	Not Applicable

**GHS Classification** Not Applicable: In accordance with Annex II, the product mixture does not meet the criteria for classification as hazardous in accordance with Titles I and II of Regulation (EC) No 1272/2008 as it contains  
(a) in an individual concentration of < 1 % by weight for non-gaseous mixtures at least one substance posing human health or environmental hazards; or  
(b) in an individual concentration of < 0.1 % by weight for non-gaseous mixtures at least one substance that is carcinogenic category 2 or toxic to reproduction category 1A, 1B and 2, skin sensitiser category 1, respiratory sensitiser category 1, or has effects on or via lactation or is persistent, bioaccumulative and toxic (PBT) in accordance with the criteria set out in Annex XIII or very persistent and very bioaccumulative (vPvB) in accordance with the criteria set out in Annex XIII or has been included for reasons other than those referred to in point (a) in the list established in accordance with Article 59(1).

### 4. FIRST AID MEASURES

**General Advice** Not Applicable  
**Oral Exposure** Rinse mouth  
**Inhalation Exposure** Fresh air, rest.  
**Skin Exposure** Clean skin with soap and water. Wash contaminated clothing before reuse.  
**Eye Exposure** Flush with copious amounts of water or eyewash saline for at least 15 minutes.

### 5. FIRE FIGHTING MEASURES

**Extinguishing media** In case of fire in the surroundings, use appropriate extinguishing media.  
**Unusual Fire and Explosive Hazards** Not Applicable  
**Flash Point** Not Applicable  
**Autoignition Temperature** Not flammable  
**Flammability Statement** Not flammable  
**Specific hazards arising from the chemical** Not Applicable

**Protective equipment and precautions for firefighters**

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin, eyes and clothing.
<b>Environmental Precautions</b>	Not Applicable
<b>Method of Containment</b>	Containment of spills requires no special equipment or procedures. Cover with absorbent.
<b>Methods of Clean-up</b>	Clean up of spills requires no special equipment or procedures. Clean with copious amounts of water.
<b>Other Information</b>	Not Applicable

## 7. HANDLING AND STORAGE

<b>Handling:</b>	Wear appropriate PPE.
<b>Storage:</b>	Store at 2 – 8°C.

## 8. EXPOSURE CONTROL

<b>Respiratory Protection</b>	None required if good ventilation is maintained. Otherwise wear MSHA/NIDSH approved respirator suitable for vapor or mist concentrations encountered.
<b>Eye Protection</b>	Safety spectacles.
<b>Skin Protection</b>	Protective gloves. Protective clothing.
<b>Ingestion</b>	Do not eat, drink, or smoke during work.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear, Colorless Solution. Relatively free of particulate matter
<b>Physical State</b>	Liquid
<b>Odor</b>	Not Applicable
<b>Odor Threshold</b>	Not Applicable
<b>pH</b>	7.1 - 7.4
<b>Boiling Point</b>	Not Applicable
<b>Evaporation Rate</b>	Not Applicable
<b>Vapor Density</b>	Not Applicable
<b>Vapor Pressure</b>	Not Applicable
<b>Relative Density</b>	Not Applicable
<b>Auto-Ignition Temperature</b>	Not Applicable
<b>Water Solubility</b>	Dilutable
<b>Flammability</b>	Not Applicable
<b>Flash Point</b>	Not Applicable
<b>Viscosity</b>	Not Applicable
<b>Oxidizing Properties</b>	Not Applicable
<b>Explosive Properties</b>	Not Applicable

**Additional Parameters** See Datasheet for more product information.

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under normal conditions
<b>Conditions to avoid</b>	Not Applicable
<b>Incompatibility Materials to Avoid</b>	Not Applicable
<b>Hazardous Decomposition Products</b>	Not Applicable
<b>Hazardous Polymerization</b>	Will not occur
<b>Possibility of hazardous reactions</b>	Not Applicable

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

## 12. ECOLOGICAL MEASURES

<b>Ecotoxicity</b>	Not Applicable
<b>Persistence/Degradability</b>	Not Applicable
<b>Mobility in Environmental Media</b>	Not Applicable

**Bioaccumulation/  
Accumulation** Not Applicable

### 13. DISPOSAL MEASURES

**Waste Disposal Method:** Normal disposal with copious amounts of water. Observe all Federal, State and Local environmental regulations.

**Contaminated Packaging:** Not Applicable

**US EPA Waste Number:** Not Applicable

### 14. TRANSPORTATION MEASURES

**DOT:** Not Regulated

**IATA:** Not Regulated

**ADR (road)/ RID (rail):** Not Regulated

**IMDG (sea):** Not Regulated

**General Transport Regulations** Not Applicable

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

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

N/A

**State Regulations**

**California Proposition 65:**

This product contains the following Proposition 65 chemicals: Not Listed

**State Right to Know Act**

**Chemical Name** Not Applicable

**Massachusetts** Not Applicable  
**New Jersey** Not Applicable  
**Pennsylvania** Not Applicable  
**New York** Not Applicable  
**Rhode Island** Not Applicable

**International Inventories**

**Chemical Name** Not Applicable

<b>TSCA</b>	Not Applicable
<b>DSL</b>	Not Applicable
<b>NDSL</b>	Not Applicable
<b>EINECS</b>	Not Applicable
<b>CHINA</b>	Not Applicable
<b>KECL</b>	Not Applicable
<b>JAPAN:</b>	Not Applicable
<b>AICS</b>	Not Applicable

**EU Regulations****Annex I Index#****Classification**

Not Applicable: In accordance with Annex II, the product mixture does not meet the criteria for classification as hazardous in accordance with Titles I and II of Regulation (EC) No 1272/2008 as it contains

- (a) in an individual concentration of < 1 % by weight for non-gaseous mixtures at least one substance posing human health or environmental hazards; or  
 (b) in an individual concentration of < 0.1 % by weight for non-gaseous mixtures at least one substance that is carcinogenic category 2 or toxic to reproduction category 1A, 1B and 2, skin sensitiser category 1, respiratory sensitiser category 1, or has effects on or via lactation or is persistent, bioaccumulative and toxic (PBT) in accordance with the criteria set out in Annex XIII or very persistent and very bioaccumulative (vPvB) in accordance with the criteria set out in Annex XIII or has been included for reasons other than those referred to in point (a) in the list established in accordance with Article 59(1).

**Risk Phrases**

Not Applicable

**Safety Phrases**

Not Applicable

**Symbols and Indications of Danger**

Not Applicable

**Specific Concentration Limits**

Not Applicable

**Export and Import**

This substance is not listed in the Annex I of Regulation (EC) No 689/2008.

**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.).

<b>16. OTHER INFORMATION</b>
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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. This material is sold for research purposes only. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals.

# Safety Data Sheet



Revision Date: 7/21/2014

LumiGLO Substrate B

SDS #: SDS-10137-02

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
LumiGLO Substrate B	50-60-00
	50-60-02
	50-60-01

**Hazardous Reagent**  
None

**Hazardous Reagent Product code**  
None

**Recommended Use** Reagent

**Contact Manufacturer** KPL, Inc.  
910 Clopper Road  
Gaithersburg, Maryland 20878  
USA

**Phone #:** 1-301-948-7755  
**Fax #:** 1-301-948-0169  
**Web:** www.kpl.com  
**Email:** kplmsds@seracare.com

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+1 703-527-3887 (collect calls accepted)

## 2. HAZARD IDENTIFICATION

<b>Hazard Type</b>	Not Hazardous. 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.
<b>Principle Route of Exposure</b>	Not Applicable
<b>Acute Effects: Eye:</b>	Not Applicable
<b>Acute Effects: Skin:</b>	Not Applicable
<b>Acute Effects: Inhalation:</b>	Not Applicable
<b>Acute Effects: Ingestion:</b>	Not Applicable
<b>Chronic Effects:</b>	Not Applicable
<b>Additional Information</b>	Not Applicable



### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
LumiGLO Substrate B	Not Applicable	Not Applicable	Not Applicable

<b>GHS Classification</b>	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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### 4. FIRST AID MEASURES

<b>General Advice</b>	Not Applicable
<b>Oral Exposure</b>	Rinse mouth
<b>Inhalation Exposure</b>	Fresh air, rest.
<b>Skin Exposure</b>	with soap and water. Wash contaminated clothing before reuse.
<b>Eye Exposure</b>	Flush with copious amounts of water or eyewash saline for at least 15 minutes.

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	Use extinguishing media appropriate for surrounding fire.
<b>Unusual Fire and Explosive Hazards</b>	Not Applicable
<b>Flash Point</b>	Not Applicable
<b>Autoignition Temperature</b>	Not Applicable
<b>Flammability Statement</b>	Not Applicable
<b>Specific hazards arising from the chemical</b>	Not Applicable
<b>Protective equipment and precautions for firefighters</b>	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin, eyes and clothing.
<b>Environmental Precautions</b>	Not Applicable
<b>Method of Containment</b>	Containment of spills requires no special equipment or procedures. Cover with absorbent.
<b>Methods of Clean-up</b>	Clean up of spills requires no special equipment or procedures. Clean with copious amounts of water.
<b>Other Information</b>	Not Applicable

### 7. HANDLING AND STORAGE

<b>Handling:</b>	Wear appropriate PPE.
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SDS #: SDS-10137-02

Storage: Store at 2 – 8°C.

## 8. EXPOSURE CONTROL

<b>Respiratory Protection</b>	None required if good ventilation is maintained. Otherwise wear MSHA/NIDSH approved respirator suitable for vapor or mist concentrations encountered.
<b>Eye Protection</b>	Safety spectacles.
<b>Skin Protection</b>	Protective gloves. Protective clothing.
<b>Ingestion</b>	Do not eat, drink, or smoke during work.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear, Colorless Solution. Relatively free of particulate matter
<b>Physical State</b>	Liquid
<b>Odor</b>	Not Applicable
<b>Odor Threshold</b>	Not Applicable
<b>pH</b>	Not Applicable
<b>Boiling Point</b>	Not Applicable
<b>Evaporation Rate</b>	Not Applicable
<b>Vapor Density</b>	Not Applicable
<b>Vapor Pressure</b>	Not Applicable
<b>Relative Density</b>	Not Applicable
<b>Auto-Ignition Temperature</b>	Not Applicable
<b>Water Solubility</b>	Dilutable
<b>Flammability</b>	Not Applicable
<b>Flash Point</b>	Not Applicable
<b>Viscosity</b>	Not Applicable
<b>Oxidizing Properties</b>	Not Applicable
<b>Explosive Properties</b>	Not Applicable
<b>Additional Parameters</b>	Not Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under normal conditions
<b>Conditions to avoid</b>	Not Available
<b>Incompatibility Materials to Avoid</b>	Not Applicable
<b>Hazardous Decomposition Products</b>	Not Applicable
<b>Hazardous Polymerization</b>	Will not occur
<b>Possibility of hazardous reactions</b>	Not Applicable

## 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

SDS #: SDS-10137-02

**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

<b>12. ECOLOGICAL MEASURES</b>
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<b>Ecotoxicity</b>	Not Applicable
<b>Persistence/Degradability</b>	Not Applicable
<b>Mobility in Environmental Media</b>	Not Applicable
<b>Bioaccumulation/Accumulation</b>	Not Applicable

<b>13. DISPOSAL MEASURES</b>
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<b>Waste Disposal Method:</b>	Normal disposal with copious amounts of water. Observe all Federal, State and Local environmental regulations.
<b>Contaminated Packaging:</b>	Not Applicable
<b>US EPA Waste Number:</b>	Not Applicable

<b>14. TRANSPORTATION MEASURES</b>
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<b>DOT:</b>	Not Available
<b>IATA:</b>	Not Available
<b>ADR (road)/ RID (rail):</b>	Not Available
<b>IMDG (sea):</b>	Not Available
<b>General Transport Regulations</b>	Not Applicable

<b>15. REGULATORY MEASURES</b>
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**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 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

SDS #: SDS-10137-02

**State Regulations****California Proposition 65:**

This product contains the following Proposition 65 chemicals: Not Listed

**State Right to Know Act****Chemical Name** Not Applicable**Massachusetts** Not Applicable**New Jersey** Not Applicable**Pennsylvania** Not Applicable**New York** Not Applicable**Rhode Island** Not Applicable**International Inventories****Chemical Name** Not Applicable**TSCA** Not Applicable**DSL** Not Applicable**NDSL** Not Applicable**EINECS** Not Applicable**CHINA** Not Applicable**KECL** Not Applicable**JAPAN:** Not Applicable**AICS** Not Applicable**EU Regulations****Annex I Index#**

**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

**Risk Phrases** Not Applicable**Safety Phrases** Not Applicable**Symbols and Indications of Danger** Not Applicable**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 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. This material is sold for research purposes only. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals.

Revision Date: 7/21/2014

# Safety Data Sheet



Revision Date: 9/29/2014

SDS # SDS-10194-01

Formamide Hybridization Buffer

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
Formamide Hybridization Buffer	50-86-12
Formamide Hybridization Buffer	50-86-11
Formamide Hybridization Buffer	50-86-10
Formamide Hybridization Buffer	50-86-09

**Hazardous Reagent**  
Formamide Hybridization Buffer

**Hazardous Reagent Product code**  
Catalog No. Listed above

**Recommended Use** Reagent

**Contact Manufacturer** KPL, Inc.  
910 Clopper Road  
Gaithersburg, Maryland 20878  
USA

**Phone #:** 1-301-948-7755  
**Fax #:** 1-301-948-0169  
**Web:** www.kpl.com  
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+1 703-527-3887 (collect calls accepted)

## 2. HAZARD IDENTIFICATION

**Hazard Type** Health Hazard

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

**Classification** Reproductive toxicity, Category 1B; H360D  
Acute toxicity, Category 4, oral; H302  
Acute toxicity, Category 3, dermal; H311  
Skin irritation, Category 2; H315  
Eye irritation, Category 2; H319  
Specific Target Organ Toxicity (single exposure), Category 3; H335

**Hazard Statement** H360D: May damage the unborn child.  
H302: Harmful if swallowed.  
H311: Toxic in contact with skin.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.

**Precautionary Statement** P201: Obtain special instructions before use.

P308+P313: IF exposed or concerned: Get medical advice/attention.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection.  
 P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
 P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P309+P310: IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.

**Symbols of Danger**

GHS08 Dgr: Danger

**Data for 100% Formamide**

**ROUTES OF EXPOSURE:** The substance can be absorbed into the body by inhalation of its vapour, through the skin and by ingestion.

**INHALATION RISK:** A harmful contamination of the air will not or will only very slowly be reached on evaporation of this substance at 20°C.

**SHORT-TERM EXPOSURE:** The substance is irritating to the eyes and the skin . The substance may cause effects on the central nervous system .

**LONG-TERM EXPOSURE:** Animal tests show that this substance possibly causes toxic effects upon human reproduction.

**The product is a Mixture. It May Cause the following symptoms.**

EYES: Redness.

SKIN: MAY BE ABSORBED! Redness.

INHALATION: Drowsiness. Headache. Nausea. Unconsciousness.

INGESTION: Abdominal pain. (See Inhalation).

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
Formamide Hybridization Buffer	Formamide	<50%	75-12-7
	Sodium Dodecyl Sulfate	<2%	151-21-3

**Classification**

Reproductive toxicity, Category 1B;  
 H360D  
 Acute toxicity, Category 4, oral; H302  
 Acute toxicity, Category 3, dermal; H311  
 Skin irritation, Category 2; H315  
 Eye irritation, Category 2; H319  
 Specific Target Organ Toxicity (single exposure),  
 Category 3; H335

### 4. FIRST AID MEASURES

**Data for 100% Formamide**

**Ingestion First Aid:** Rinse mouth. Rest. Refer for medical attention.

**Inhalation First Aid:** Fresh air, rest. Artificial respiration may be needed. Refer for medical attention.

**Skin First Aid:** Remove contaminated clothes. Rinse skin with plenty of water or shower.

**Eye First Aid:** First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

### 5. FIRE FIGHTING MEASURES

**Data For 100% Formamide**

<b>Fire Acute Hazard:</b> Combustible. Gives off irritating or toxic fumes (or gases) in a fire.	<b>Fire Prevention:</b> NO open flames.	<b>Fire Fighting:</b> Powder, alcohol-resistant foam, water spray, carbon dioxide.
<b>Explosion Acute Hazard:</b> Not Available	Not Available	Not Available
<b>CHEMICAL DANGERS:</b>	On combustion, forms toxic gases (nitrogen oxides). The substance decomposes on heating at 180°C producing ammonia, water, carbon monoxide and hydrogen cyanide. Reacts with oxidants. Attacks metals such as aluminium, iron, copper and natural rubber.	
<b>PHYSICAL DANGERS:</b>	Not Available	

## 6. ACCIDENTAL RELEASE MEASURES

### Personal Precautions

#### Body protection:

Depending on the risk, wear a tight, long apron and boots or suitable chemical protection clothing.  
The protection clothing should be solvent resistant.

#### Respiratory protection:

In an emergency (e.g.: unintentional release of the substance) respiratory protection must be worn. Consider the maximum period for wear.

Respiratory protection: Gas filter A, Colour code brown.

Use insulating device for concentrations above the usage limits for filter devices, for oxygen concentrations below 17% volume, or in circumstances which are unclear.

#### Eye protection:

Sufficient eye protection should be worn.  
Wear glasses with side protection.

#### Hand protection:

Use protective gloves. The glove material must be sufficiently impermeable and resistant to the substance. Check the tightness before wear. Gloves should be well cleaned before being removed, then stored in a well ventilated location. Pay attention to skin care.

Skin protection cremes do not protect sufficiently against the substance.

Textile or leather gloves are completely unsuitable.

The following materials are suitable for protective gloves (Permeation time  $\geq$  8 hours):  
Natural rubber/Natural latex - NR (0,5 mm) (use non-powdered and allergen free products)

Polychloroprene - CR (0,5 mm)

Nitrile rubber/Nitrile latex - NBR (0,35 mm)

Butyl rubber - Butyl (0,5 mm)

Fluoro carbon rubber - FKM (0,4 mm)

Polyvinyl chloride - PVC (0,5 mm)

The times listed are suggested by measurements taken at 22 °C and constant contact. Temperatures raised by warmed substances, body heat, etc. and a weakening of the effective layer thickness caused by expansion can lead to a significantly shorter breakthrough time. In case of doubt contact the gloves' manufacturer. A 1.5-times increase / decrease in the layer thickness doubles / halves the breakthrough time. This data only applies to the pure substance. Transferred to mixtures of substances, these figures should only be taken as an aid to orientation.

### Environmental Precautions

Low hazard to waters. Inform the responsible authorities when very large quantities get into water, drainage, sewer, or the ground.

### Method of Containment

Evacuate area. Warn affected surroundings.

The hazardous area may only be entered once suitable protective measures are implemented. Only then can the hazardous situation be removed.

Wear respiratory protection, eye protection, hand protection and body protection (see chapter Personal Protection).



Absorb any spilt liquid with an absorbent (e.g. diatomite, vermiculite, sand) and dispose of according to regulations.

Pump off larger quantities.

Afterwards ventilate area and wash spill site.

**Methods of Clean-up**

Use protective equipment while cleaning if necessary.

Only conduct maintenance and other work on or in the vessel or closed spaces after obtaining written permission.

Only work with vessels and lines after they have been thoroughly rinsed.

**Other Information**

Not Available

**Data for 100% Formamide**

<b>SPILLAGE DISPOSAL</b>	Collect leaking and spilled liquid in sealable steel (not copper) containers as far as possible. Wash away spilled liquid with plenty of water.
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## 7. HANDLING AND STORAGE

**Handling:** Wear appropriate PPE. Refer to section 8.

**Storage:** Store at 2 – 8°C.

**Data for 100% Formamide**

<b>STORAGE</b>	Separated from oxidants . Dry.
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## 8. EXPOSURE CONTROL

**Data for 100% Formamide**

- |                     |  |
|---------------------|--|
| • <b>INHALATION</b> | Ventilation.   |
| • <b>EYES</b>       | Face shield.   |
| • <b>SKIN</b>       | Protective clothing.   |
| • <b>INGESTION</b>  | Do not eat, drink, or smoke during work. Wash hands before eating. |

**Engineering Controls**

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** Clear with a Light Golden Color

**Physical State** Liquid **pH:** No data available

**Data for 100% Formamide**

	Boiling point: 118°C	Melting point: 2.5°C	Relative density (water = 1): 1.13	Solubility in water: very good
Vapour pressure, Pa at 20°C: about 2	Relative vapour density (air = 1): 1.6	Flash point: 154°C o.c.	Auto-ignition temperature: >500°C	

## 10. STABILITY AND REACTIVITY

**Chemical Stability** Stable under normal conditions

**Incompatibility Materials to Avoid** Data for 100% Formamide: Collocated storage with the following substances is prohibited:

- Pharmaceuticals, foods, and animal feeds including additives.
- Infectious, radioactive und explosive substances.
- Gases.
- Other explosive substances of storage class 4.1A.
- Strongly oxidizing substances of storage class 5.1A.
- Ammonium nitrate and preparations containing ammonium nitrate.
- Organic peroxides and self reactive substances.

**Hazardous Decomposition Products**

Data for 100% Formamide: Attention! Hazardous decomposition products may occur.  
Nitrous gases (nitric oxides)  
Hydrogen cyanide vapours

**Hazardous Polymerization**

Not Available

**Data for 100% Formamide**

<b>CHEMICAL DANGERS:</b>	On combustion, forms toxic gases (nitrogen oxides). The substance decomposes on heating at 180°C producing ammonia, water, carbon monoxide and hydrogen cyanide. Reacts with oxidants. Attacks metals such as aluminium, iron, copper and natural rubber.
<b>PHYSICAL DANGERS:</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.

**LD50 Oral** Data for 100% Formamide: LD50 oral rat

Value: 5580 mg/kg  
Reference: Unknown

**LD50 Dermal** Data for 100% Formamide: LD50 dermal

Species: Rabbit  
Value: 17000 mg/kg  
Reference: National Technical Information Service. Vol. OTS0528421,

**LC50 Inhalation****Chronic Toxicity**

**Carcinogenicity** Not Available

**Irritation** H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.

**Corrosivity** Not Available

**Sensitization** Not Available

**Neurological Effects** Not Available

**Mutagenic Effects** Not Available

**Reproductive Effects** Data for 100% Formamide: H360D: May damage the unborn child.

**Developmental Effects** Not Available

**Target Organ Effects** Data for 100% Formamide: The main intake pathways for formamide are via the skin and the respiratory tract.

**Other adverse effects** Not Available

## 12. ECOLOGICAL MEASURES

**Ecotoxicity**

Data for 100% Sodium Dodecyl Sulfate:  
LC50 Fish (96 hours)  
Minimum: 0,59 mg/l  
Maximum: 38 mg/l  
Median: 7,97 mg/l  
Study number: 43  
Reference for median:  
Fogels, A., and J.B. Sprague 1977. Comparative Short-Term Tolerance of Zebrafish, Flagfish, and Rainbow Trout to Five Poisons Including Potential Reference Toxicants. Water Res. 11(9):811-817

LC50 Crustaceans (48 hours)

Minimum: 1,26 mg/l  
 Maximum: 162 mg/l  
 Median: 12,1 mg/l  
 Study number: 133  
 Reference for median:  
 Lewis, P.A., and W.B. Horning II 1991. Differences in Acute Toxicity Test Results of Three Reference Toxicants on Daphnia at Two Temperatures. Environ.Toxicol.Chem. 10:1351-1357

**Persistence/Degradability** Data for 100% Dodecyl Sulfate, Sodium Salt: Fish (Fundulus heteroclitus) Static 96hr LC50 1.2 mg/L (Slightly harmful in the aquatic environment or are otherwise designed for biocidal action)

**Mobility in Environmental Media** Not Available

**Bioaccumulation/Accumulation** Data for 100% Dodecyl Sulfate, Sodium Salt: Fish (Proterorhinus marmoratus 240 day 15°C 4 mg/L BCF 7.15 (Not bioaccumulative)

### 13. DISPOSAL MEASURES

**Waste Disposal Method:** Observe all Federal, State and Local laws concerning health and pollution. Avoid escape into water, drainage, sewer, or the ground. Collection of small amounts of substance: Place in a collection container for halogen-free organic solvents and solutions of halogen-free organic substances. Collection vessels must be clearly labelled with a systematic description of their contents. Store the vessels in a well-ventilated location. Entrust them to the appropriate authorities for disposal.

**Contaminated Packaging:** Avoid contact with skin and clothing. Dispose of in compliance with the respective national and local regulations.

**US EPA Waste Number:** Not Available

### 14. TRANSPORTATION MEASURES

**DOT:** Not Available

**IATA:** Not Available

**ADR (road)/ RID (rail):** Not Available

**IMDG (sea):** Not Available

**General Transport Regulations** Not Available

### 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 q 2.C1.**

#### **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)**

This product contains no chemical or chemicals which are subject to the reporting requirements of the Clean Air Act, Section 112 HAPS

#### **State Regulations**

##### **California Proposition 65:**

This product contains the following Proposition 65 chemicals: None Listed

##### **State Right to Know Act**

Chemical Name	Formamide	Sodium Dodecyl Sulfate
Massachusetts	Listed	Not Listed
New Jersey	Listed	Not Listed
Pennsylvania	Listed	Not Listed

New York	Listed	Not Listed
Rhode Island	Not Listed	Not Listed

**International Inventories**

Chemical Name	Formamide	Sodium Dodecyl Sulfate
TSCA	Listed	Listed
DSL	Listed	Listed
NDSL	Not Listed	Not Listed
EINECS	Listed	Listed
CHINA	Listed	Listed
KECL	Listed	Listed
JAPAN:	Listed	Listed
AICS	Listed	Listed

**EU Regulations**

<b>Annex I Index#</b>	Data for Formamide: 616-052-00-8
<b>Classification</b>	Reproductive toxicity, Category 1B; H360D Acute toxicity, Category 4, oral; H302 Acute toxicity, Category 3, dermal; H311 Skin irritation, Category 2; H315 Eye irritation, Category 2; H319 Specific Target Organ Toxicity (single exposure), Category 3; H335
<b>Risk Phrases</b>	H360D: May damage the unborn child. H302: Harmful if swallowed. H311: Toxic in contact with skin. H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.
<b>Safety Phrases</b>	P201: Obtain special instructions before use. P308+P313: IF exposed or concerned: Get medical advice/attention. P280: Wear protective gloves/protective clothing/eye protection/face protection. P302+P352: IF ON SKIN: Wash with plenty of soap and water. P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P309+P310: IF exposed or if you feel unwell: Immediately call a POISON CENTER or doctor/physician.
<b>Symbols and Indications of Danger</b>	GHS08 Dgr: Danger
<b>Specific Concentration Limits</b>	Not Available
<b>Export and Import</b>	This substance is not listed in the Annex I of Regulation (EC) No 649/2012.
<b>European Priority List</b>	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.).

<b>16. OTHER INFORMATION</b>
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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. This material is sold for research purposes and is intended as laboratory reagents only. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals.

Revision Date: 9/29/2014

# Safety Data Sheet



Revision Date: 6/30/2014

LumiGLO® Chemiluminescent Substrate A

SDS #: SDS-10295-01

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Description:

LumiGLO® Chemiluminescent Substrate A  
LumiGLO® Chemiluminescent Substrate A  
LumiGLO® Chemiluminescent Substrate A

### Product Code

50-59-02  
50-59-01  
50-59-00

### Hazardous Reagent

LumiGLO® Chemiluminescent Substrate A

### Hazardous Reagent Product code

Catalog No. listed above

**Recommended Use** Reagent

**Contact Manufacturer** KPL, Inc.  
910 Clopper Road  
Gaithersburg, Maryland 20878  
USA

**Phone #:** 1-301-948-7755  
**Fax #:** 1-301-948-0169  
**Web:** www.kpl.com  
**Email:** kplmsds@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

<b>Hazard Type</b>	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.
<b>Principle Route of Exposure</b>	The substance can be absorbed into the body by inhalation, through the skin and by ingestion.
<b>Acute Effects: Eye:</b>	May cause redness and blurred vision.
<b>Acute Effects: Skin:</b>	Dry skin and Irritation may occur
<b>Acute Effects: Inhalation:</b>	Headache and Nausea may occur.
<b>Acute Effects: Ingestion:</b>	Nausea, Vomiting and Drowsiness may occur
<b>Chronic Effects:</b>	None Available
<b>Additional Information</b>	The product contains no substances which at their given concentration, are considered to be

hazardous to health

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
LumiGLO® Chemiluminescent Substrate A	Dimethylsulfoxide	≤ 3.0%	67-68-5

<b>GHS Classification</b>	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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### 4. FIRST AID MEASURES

<b>General Advice</b>	Wash contaminated clothing before reuse.
<b>Oral Exposure</b>	Do not induce vomiting. Refer for medical attention.
<b>Inhalation Exposure</b>	Remove subject to fresh air. Seek medical attention if necessary.
<b>Skin Exposure</b>	Remove contaminated clothes. Rinse and then wash skin with water and soap. Seek medical attention if irritation persists.
<b>Eye Exposure</b>	First rinse with plenty of water for several minutes (remove contact lenses if easily possible). Seek medical attention if irritation persists.

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	Foam, Alcohol Foam, CO2, Dry Chemical and Water/Fog
<b>Unusual Fire and Explosive Hazards</b>	May emit toxic fumes under fire conditions.
<b>Flash Point</b>	Not Available
<b>Autoignition Temperature</b>	Not Applicable
<b>Flammability Statement</b>	Not Applicable
<b>Specific hazards arising from the chemical</b>	May emit toxic fumes under fire conditions. Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.
<b>Protective equipment and precautions for firefighters</b>	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin and clothing.
<b>Environmental Precautions</b>	Not Available
<b>Method of Containment</b>	Collect leaking and spilled liquid in sealable containers as far as possible. Absorb remaining liquid in sand or inert absorbent and remove to safe place.
<b>Methods of Clean-up</b>	Clean-up with copious amounts of water.
<b>Other Information</b>	Not Applicable

## 7. HANDLING AND STORAGE

**Handling:** Handle in accordance with good industrial hygiene and safety practice.

**Storage:** Store at room temperature. Separated from strong oxidants.

## 8. EXPOSURE CONTROL

**Respiratory Protection** None required if good ventilation is maintained. Otherwise wear MSHA/NIOSH approved respirator suitable for vapor or mist concentrations encountered. May be harmful if inhaled in very large quantities.

**Eye Protection** Safety spectacles.

**Skin Protection** Protective gloves. Protective clothing.

**Ingestion** Do not eat, drink, or smoke during work.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** Clear, Faint Yellow Colored Solution

**Physical State** Liquid

**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.

**Conditions to avoid** Not Available

**Incompatibility Materials to Avoid** Other strong oxidizing agents, acid chlorides, acid anhydrides

**Hazardous Decomposition Products** Upon evaporation of water, may emit carbon monoxide, carbon dioxide, SO X

**Hazardous Polymerization** Will not occur

**Possibility of hazardous reactions** Not Applicable

## 11. TOXICOLOGY MEASURES

**Acute Toxicity**

## SDS #: SDS-10295-01

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	Yes. May occur
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

<b>12. ECOLOGICAL MEASURES</b>
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Ecotoxicity	Not Available
Persistence/Degradability	Not Available
Mobility in Environmental Media	Not Available
Bioaccumulation/Accumulation	Not Available

<b>13. DISPOSAL MEASURES</b>
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<b>Waste Disposal Method:</b>	Observe all Federal, State and Local laws concerning health and pollution.
<b>Contaminated Packaging:</b>	Avoid contact with skin and clothing. Dispose of in compliance with the respective national and local regulations.
<b>US EPA Waste Number:</b>	Not Available

<b>14. TRANSPORTATION MEASURES</b>
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DOT:	Not Available
IATA:	Not Available
ADR (road)/ RID (rail):	Not Available
IMDG (sea):	Not Available
General Transport Regulations	Not Available

<b>15. REGULATORY MEASURES</b>
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**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).**



SDS #: SDS-10295-01

**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: Not Listed

**State Right to Know Act**

<b>Chemical Name</b>	<b>Dimethylsulfoxide</b>
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<b>Massachusetts</b>	Not Listed
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<b>New Jersey</b>	Not Listed
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<b>Pennsylvania</b>	Not Listed
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<b>New York</b>	Not Listed
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<b>Rhode Island</b>	Not Listed
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**International Inventories**

<b>Chemical Name</b>	<b>Dimethylsulfoxide</b>
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<b>TSCA</b>	Listed
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<b>DSL</b>	Not Listed
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<b>NDSL</b>	Listed
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<b>EINECS</b>	Listed
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<b>CHINA</b>	Listed
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<b>KECL</b>	Listed
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<b>JAPAN:</b>	Listed
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<b>AICS</b>	Listed
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**EU Regulations**

<b>Annex I Index#</b>	Not Applicable
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<b>Classification</b>	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>Risk Phrases</b>	Not Applicable
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<b>Safety Phrases</b>	Not Applicable
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<b>Symbols and Indications of Danger</b>	Not Applicable
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<b>Specific Concentration Limits</b>	Not Applicable
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<b>Export and Import</b>	This substance is not listed in the Annex I of Regulation (EC) No 649/2012.
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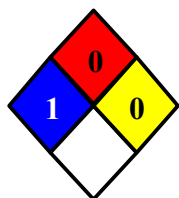
<b>European Priority List</b>	This substance is not listed in the Annex I of Regulation (EC) No 689/2008.
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**16. OTHER INFORMATION**

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. This material is sold for research purposes and is intended as laboratory reagents only. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals.

Revision Date: 6/30/2014

# Material Safety Data Sheet



Revision Date: 11/7/2011

MSDS #: 10190

72-01-03

Detector Block Powder

## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Description

Detector Block Powder

### CATALOG NO.

72-01-03

### Hazardous Reagent

DETECTOR BLOCK POWDER

### Hazardous Reagent Product code

Catalog No. listed above

**Recommended Use** Reagent

**Contact Manufacturer** KPL, Inc.  
910 Clopper Road  
Gaithersburg, Maryland 20878  
USA

**Phone #:** 1-301-948-7755  
**Fax #:** 1-301-948-0169  
**Web:** www.kpl.com  
**Email:** msds@kpl.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

## 2. HAZARD IDENTIFICATION

<b>Hazard Type</b>	Irritant
<b>Principle Route of Exposure</b>	The substance can be absorbed into the body by inhalation, through the skin and by ingestion.
<b>Acute Effects: Eye:</b>	May cause Irritation
<b>Acute Effects: Skin:</b>	Absorption through skin may occur. May cause irritation to the skin
<b>Acute Effects: Inhalation:</b>	May cause irritation to the respiratory tract.
<b>Acute Effects: Ingestion:</b>	May be harmful if swallowed.
<b>Chronic Effects:</b>	Not Applicable
<b>Additional Information</b>	The product contains no substances which at their given concentration, are considered to be hazardous to health

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
Detector Block Powder	Proprietary Component (Trade Secret per 29 CFR 1910.1200 i 1)	100%	Proprietary

### 4. FIRST AID MEASURES

<b>General Advice</b>	Wash contaminated clothing before reuse.
<b>Oral Exposure</b>	Rinse mouth
<b>Inhalation Exposure</b>	Fresh air, rest.
<b>Skin Exposure</b>	Rinse with copious amounts of water
<b>Eye Exposure</b>	Rinse with copious amounts of water

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing media</b>	Dry Chemical extinguishers, water spray or foam.
<b>Unusual Fire and Explosive Hazards</b>	At high temperatures (+750°) in a building fire, there will be considerable smoke before and after combustion in which case, smoke inhalation protection should be used.
<b>Flash Point</b>	550°F
<b>Autoignition Temperature</b>	Not Available
<b>Flammability Statement</b>	Not Flammable
<b>Specific hazards arising from the chemical</b>	Not Available
<b>Protective equipment and precautions for firefighters</b>	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. At high temperatures (+750°) in a building fire, there will be considerable smoke before and after combustion in which case, smoke inhalation protection should be used.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin, eyes and clothing. Avoid dust formation. Avoid breaking vapors, mist or gas.
<b>Environmental Precautions</b>	Not Available
<b>Method of Containment</b>	Scoop up and place in a suitable container. Avoid raising dust. Hold for appropriate disposal.
<b>Methods of Clean-up</b>	Clean-up with copious amounts of water.
<b>Other Information</b>	Not Applicable

### 7. HANDLING AND STORAGE

**Handling:** Wear appropriate PPE. Avoid overexposure to excessive dust particles.

**Storage:** Store away from heat and water sources.

## 8. EXPOSURE CONTROL

<b>Respiratory Protection</b>	Dust respirator 3M Part no: 8800 or other NIOSH approved version.
<b>Eye Protection</b>	Safety goggles.
<b>Skin Protection</b>	Protective gloves. Protective clothing.
<b>Ingestion</b>	Do not eat or drink

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Cream color, Granular powder
<b>Physical State</b>	Solid
<b>Odor</b>	Slight cheesy odor
<b>Odor Threshold</b>	Not Applicable
<b>pH</b>	Not Applicable
<b>Boiling Point</b>	Not Applicable
<b>Evaporation Rate</b>	Not Applicable
<b>Vapor Density</b>	Not Applicable
<b>Vapor Pressure</b>	Not Applicable
<b>Relative Density</b>	(H <sub>2</sub> O = 1): 1.28
<b>Auto-Ignition Temperature</b>	Not Applicable
<b>Water Solubility</b>	Colloidally dispersible
<b>Flammability</b>	Not Applicable
<b>Flash Point</b>	550°F
<b>Viscosity</b>	Not Applicable
<b>Oxidizing Properties</b>	Not Applicable
<b>Explosive Properties</b>	Not Applicable
<b>Additional Parameters</b>	Not Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under normal conditions
<b>Conditions to avoid</b>	Avoid dust formation.
<b>Incompatibility Materials to Avoid</b>	None
<b>Hazardous Decomposition Products</b>	Not Applicable
<b>Hazardous Polymerization</b>	Will not occur
<b>Possibility of hazardous reactions</b>	Not Applicable

## 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 Applicable
<b>Irritation</b>	Not Applicable
<b>Corrosivity</b>	Not Applicable
<b>Sensitization</b>	Not Applicable
<b>Neurological Effects</b>	Not Applicable
<b>Mutagenic Effects</b>	Not Applicable
<b>Reproductive Effects</b>	Not Applicable
<b>Developmental Effects</b>	Not Applicable
<b>Target Organ Effects</b>	Not Applicable
<b>Other adverse effects</b>	Not Applicable

<b>12. ECOLOGICAL MEASURES</b>
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<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

<b>13. DISPOSAL MEASURES</b>
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<b>Waste Disposal Method:</b>	As a food product and in accordance with local, state and federal regulations covering solid waste disposal.
<b>Contaminated Packaging:</b>	Not Available
<b>US EPA Waste Number:</b>	Not Available

<b>14. TRANSPORTATION MEASURES</b>
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<b>DOT:</b>	Not Regulated
<b>IATA:</b>	Not Regulated
<b>ADR (road)/ RID (rail):</b>	Not Regulated

IMDG (sea): Not Regulated

General Transport Regulations Not Available

## 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 g 2.C1.**

### **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.

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

Not Listed

### **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>Proprietary Component (Trade Secret per 29 CFR 1910.1200 i 1)</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>Proprietary Component (Trade Secret per 29 CFR 1910.1200 i 1)</b>
<b>TSCA</b>	Not Applicable
<b>DSL</b>	Not Applicable
<b>NDSL</b>	Not Applicable
<b>EINECS</b>	Not Applicable
<b>ELINCS</b>	Not Applicable
<b>CHINA</b>	Not Applicable
<b>KECL</b>	Not Applicable
<b>JAPAN:</b>	Not Applicable
<b>AICS</b>	Not Applicable

### **EU Regulations**

**Annex I Index#** Not Applicable

<b>Classification</b>	Not Applicable
<b>Risk Phrases</b>	Not Applicable
<b>Safety Phrases</b>	Not Applicable
<b>Symbols and Indications of Danger</b>	Not Applicable
<b>Specific Concentration Limits</b>	Not Applicable
<b>Export and Import</b>	This substance is not listed in the Annex I of Regulation (EC) No 689/2008.
<b>European Priority List</b>	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 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. This material is sold for research purposes and is intended as laboratory reagents only. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals.





# Safety Data Sheet

Revision Date: 6/11/2015

Detector Block Solution 5X

SDS #: SDS-10124-03

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
Detector Block Solution 5X (Sample)	SPL-DB
Detector Block Solution 5X	71-83-01
Detector Block Solution 5X	71-83-04
Detector Block Solution 5X	71-83-02

**Hazardous Reagent**  
None

**Hazardous Reagent Product code**  
Not Applicable

**Recommended Use** Reagent

**Contact Manufacturer** KPL, Inc.  
910 Clopper Road  
Gaithersburg, Maryland 20878  
USA

**Phone #:** 1-301-948-7755  
**Fax #:** 1-301-948-0169  
**Web:** www.kpl.com  
**Email:** kplmsds@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** 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.

**Principle Route of Exposure** The substance can be absorbed into the body by inhalation, through the skin and by ingestion.

**Acute Effects: Eye:** Eye Irritant

**Acute Effects: Skin:** Prolonged contact can cause skin irritation

**Acute Effects: Inhalation:** Irritating to mucus membranes and upper respiratory tract.

**Acute Effects: Ingestion:** None available

**Chronic Effects:** None Available

Additional Information

Not Applicable

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
Detector Block Solution 5X	2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride	< 2.5%	1185-53-1

**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

### 4. FIRST AID MEASURES

<b>General Advice</b>	Wash contaminated clothing before reuse. Consult a physician if irritation persists.
<b>Oral Exposure</b>	Rinse mouth. Refer for medical attention.
<b>Inhalation Exposure</b>	Remove subject to fresh air. If not breathing, give artificial respiration. If breathing is labored, give oxygen. Seek medical attention.
<b>Skin Exposure</b>	First rinse with plenty of water, then remove contaminated clothes and rinse again. 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>	Foam, Alcohol Foam, CO <sub>2</sub> , Dry Chemical and Water/Fog
<b>Unusual Fire and Explosive Hazards</b>	May emit toxic fumes under fire conditions.
<b>Flash Point</b>	Not Applicable
<b>Autoignition Temperature</b>	Not Available
<b>Flammability Statement</b>	Not Available
<b>Specific hazards arising from the chemical</b>	Not Available
<b>Protective equipment and precautions for firefighters</b>	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Avoid contact with skin and clothing.
<b>Environmental Precautions</b>	Not Applicable
<b>Method of Containment</b>	Collect leaking and spilled liquid in sealable containers as far as possible.
<b>Methods of Clean-up</b>	Clean up the spill with absorbent material and place in closed containers for disposal. Wash the spill site thoroughly. Ventilate area before returning to the spill site.
<b>Other Information</b>	Not Applicable

## 7. HANDLING AND STORAGE

<b>Handling:</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Storage:</b>	Store at 2-8°C.

## 8. EXPOSURE CONTROL

<b>Respiratory Protection</b>	None required if good ventilation is maintained. Otherwise wear MSHA/NIOSH approved respirator suitable for vapor or mist concentrations encountered.
<b>Eye Protection</b>	Safety goggles.
<b>Skin Protection</b>	Protective gloves. Protective clothing.
<b>Ingestion</b>	Do not eat, drink, or smoke during work.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance</b>	Clear, brownish solution.
<b>Physical State</b>	Liquid
<b>Odor</b>	Not Applicable
<b>Odor Threshold</b>	Not Applicable
<b>pH</b>	Not Applicable
<b>Boiling Point</b>	Not Applicable
<b>Evaporation Rate</b>	Not Applicable
<b>Vapor Density</b>	Not Applicable
<b>Vapor Pressure</b>	Not Applicable
<b>Relative Density</b>	Not Applicable
<b>Auto-Ignition Temperature</b>	Not Applicable
<b>Water Solubility</b>	Dilutable
<b>Flammability</b>	Not Applicable
<b>Flash Point</b>	Not Applicable
<b>Viscosity</b>	Not Applicable
<b>Oxidizing Properties</b>	Not Applicable
<b>Explosive Properties</b>	Not Applicable
<b>Additional Parameters</b>	Not Available

## 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable
<b>Conditions to avoid</b>	Not Available
<b>Incompatibility Materials to Avoid</b>	Incompatible with bases and strong oxidizing agents.
<b>Hazardous Decomposition Products</b>	Thermal decomposition may produce carbon monoxide, carbon dioxide, and nitrogen oxides.
<b>Hazardous Polymerization</b>	Will not occur
<b>Possibility of hazardous reactions</b>	Not Available

## 11. TOXICOLOGY MEASURES

### Acute Toxicity

## SDS #: SDS-10124-03

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** Eyes, Skin and Respiratory tract

**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

## 13. DISPOSAL MEASURES

**Waste Disposal Method:** Observe all Federal, State, and Local laws concerning health and pollution.

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

**US EPA Waste Number:** Not Available

## 14. TRANSPORTATION MEASURES

**DOT:** Not Available

**IATA:** Not Available

**ADR (road)/ RID (rail):** Not Available

**IMDG (sea):** Not Available

**General Transport Regulations** Not Available

## 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).**

SDS #: SDS-10124-03

**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 Listed

**State Regulations**

**California Proposition 65:**

This product contains the following Proposition 65 chemicals: None Listed

**State Right to Know Act**

**Chemical Name** 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride

**New Jersey** Listed  
**Pennsylvania** Listed  
**New York** Listed  
**Rhode Island** Listed

**International Inventories**

**Chemical Name** 2-Amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride

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

**EU Regulations**

**Annex I Index#** Not Applicable  
**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  
**Risk Phrases** Not Applicable  
**Safety Phrases** Not Applicable  
**Symbols and Indications of Danger** Not Applicable  
**Specific Concentration Limits** Not Applicable

**16. OTHER INFORMATION**

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. This material is sold for research purposes and is intended as laboratory reagents only. It is not intended for food, drug, household, agricultural or cosmetic use. Its use must be supervised by a technically qualified individual experienced in handling potentially hazardous chemicals.

Revision Date: 6/11/2015