

Safety Data Sheet



Revision Date: 7/31/2014

SDS #: SDS-10249-01

Detector™ AP Chemiluminescent Blotting Kit

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:

Product Code

Detector™ AP Chemiluminescent Blotting Kit

54-30-02

Detector™ AP Chemiluminescent Blotting Kit

54-30-01

Kit Components:

Detector Block Solution	
Phosphatase Labeled, Streptavidin	475-3001
Phosphatase Assay Buffer (10X)	50-63-12
Phosphatase Wash Solution (5X)	50-63-17
Phosphatase Wash Solution Concentrate (5X)	50-63-11
Formamide Hybridization Buffer	50-86-12
Detector Block Solution	71-83-02
CDP-Star	50-60-03
Detector Block Powder	72-01-03

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
Email: kplmsds@seracare.com

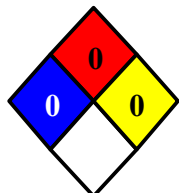
Emergency Telephone Numbers:

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)

Material Safety Data Sheet



Revision Date: 1/21/2011

MSDS #: 10141 50-63-12 50-63-13 50-63-14 Phosphatase Assay Buffer (10X)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description

Phosphatase Assay Buffer (10X)

CATALOG NO.

50-63-12
50-63-13
50-63-14

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: cbowman@kpl.com

Emergency Telephone Numbers:

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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

2. HAZARD IDENTIFICATION

Hazard Type	Not Hazardous
Principle Route of Exposure	Not Applicable
Acute Effects: Eye:	Not Applicable
Acute Effects: Skin:	Not Applicable
Acute Effects: Inhalation:	Not Applicable
Acute Effects: Ingestion:	Not Applicable
Chronic Effects:	Not Applicable
Additional Information	Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
Phosphatase Assay Buffer (10X)	N.A	N.A	N.A

4. FIRST AID MEASURES

General Advice	Not Applicable
Oral Exposure	Rinse mouth
Inhalation Exposure	Fresh air, rest.
Skin Exposure	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	Use extinguishing media appropriate for surrounding fire.
Unusual Fire and Explosive Hazards	Not Applicable
Flash Point	Not Applicable
Autoignition Temperature	Not Applicable
Flammability Statement	Not Applicable
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

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

7. HANDLING AND STORAGE

Handling: Wear appropriate PPE.

Storage: Store at 2 – 8°C.

8. EXPOSURE CONTROL

Respiratory Protection	None required if good ventilation is maintained. Otherwise wear MSHA/NIDSH approved respirator suitable for vapor or mist concentrations encountered.
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, Colorless Solution. Relatively free of particulate matter
Physical State	Liquid
Odor	Not Applicable
Odor Threshold	Not Applicable
pH	Not Applicable
Boiling Point	Not Applicable
Evaporation Rate	Not Applicable
Vapor Density	Not Applicable
Vapor Pressure	Not Applicable
Relative Density	Not Applicable
Auto-Ignition Temperature	Not Applicable
Water Solubility	Dilutable
Flammability	Not Applicable
Flash Point	Not Applicable
Viscosity	Not Applicable
Oxidizing Properties	Not Applicable
Explosive Properties	Not Applicable
Additional Parameters	Not Available

10. STABILITY AND REACTIVITY

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

LD50 Oral	Not Applicable
LD50 Dermal	Not Applicable
LC50 Inhalation	Not Applicable

Chronic Toxicity

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

12. ECOLOGICAL MEASURES

Ecotoxicity	Not Applicable
Persistence/Degradability	Not Applicable
Mobility in Environmental Media	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 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)

N/A

State Regulations

California Proposition 65:

This product contains the following Proposition 65 chemicals: Not Listed

State Right to Know Act

Chemical Name	N.A
Massachusetts	Not Applicable
New Jersey	Not Applicable
Pennsylvania	Not Applicable
New York	Not Applicable
Rhode Island	Not Applicable

International Inventories

Chemical Name	N.A
TSCA	Not Applicable
DSL	Not Applicable
NDSL	Not Applicable
EINECS	Not Applicable
ELINCS	Not Applicable
CHINA	Not Applicable
KECL	Not Applicable
JAPAN:	Not Applicable
AICS	Not Applicable

EU Regulations

Annex I Index#	
Classification	Not Applicable
Risk Phrases	Not Applicable

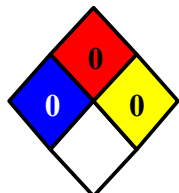
MSDS #: 10141 50-63-12 50-63-13 50-63-14 Phosphatase Assay Buffer (10X)

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.).

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.

Material Safety Data Sheet



Revision Date: 1/21/2011

MSDS #: 10142 50-63-15 50-63-17 50-63-18 Phosphatase Wash Solution (5X)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description

Phosphatase Wash Solution (5X)

CATALOG NO.

50-63-15
50-63-17
50-63-18

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: cbowman@kpl.com

Emergency Telephone Numbers:

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USA- NATIONAL RESPONSE CENTER	Telephone: (1) 800 424 8802	Hours: 24 hours/day, 7 days/week

2. HAZARD IDENTIFICATION

Hazard Type	Not Hazardous
Principle Route of Exposure	Not Applicable
Acute Effects: Eye:	Not Applicable
Acute Effects: Skin:	Not Applicable
Acute Effects: Inhalation:	Not Applicable
Acute Effects: Ingestion:	Not Applicable
Chronic Effects:	Not Applicable
Additional Information	Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
Phosphatase Wash Solution (5X)	N.A	N.A	N.A

4. FIRST AID MEASURES

General Advice	Not Applicable
Oral Exposure	Rinse mouth
Inhalation Exposure	Fresh air, rest.
Skin Exposure	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	Use extinguishing media appropriate for surrounding fire.
Unusual Fire and Explosive Hazards	Not Applicable
Flash Point	Not Applicable
Autoignition Temperature	Not Applicable
Flammability Statement	Not Applicable
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

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

7. HANDLING AND STORAGE

Handling: Wear appropriate PPE.

Storage: Store at 2 – 8°C.

8. EXPOSURE CONTROL

Respiratory Protection	None required if good ventilation is maintained. Otherwise wear MSHA/NIDSH approved respirator suitable for vapor or mist concentrations encountered.
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, Colorless Solution. Relatively free of particulate matter
Physical State	Liquid
Odor	Not Applicable
Odor Threshold	Not Applicable
pH	Not Applicable
Boiling Point	Not Applicable
Evaporation Rate	Not Applicable
Vapor Density	Not Applicable
Vapor Pressure	Not Applicable
Relative Density	Not Applicable
Auto-Ignition Temperature	Not Applicable
Water Solubility	Dilutable
Flammability	Not Applicable
Flash Point	Not Applicable
Viscosity	Not Applicable
Oxidizing Properties	Not Applicable
Explosive Properties	Not Applicable
Additional Parameters	Not Available

10. STABILITY AND REACTIVITY

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

LD50 Oral	Not Applicable
LD50 Dermal	Not Applicable
LC50 Inhalation	Not Applicable

Chronic Toxicity

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

12. ECOLOGICAL MEASURES

Ecotoxicity	Not Applicable
Persistence/Degradability	Not Applicable
Mobility in Environmental Media	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 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 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	N.A
Massachusetts	Not Applicable
New Jersey	Not Applicable
Pennsylvania	Not Applicable
New York	Not Applicable
Rhode Island	Not Applicable

International Inventories

Chemical Name	N.A
TSCA	Not Applicable
DSL	Not Applicable
NDSL	Not Applicable
EINECS	Not Applicable
ELINCS	Not Applicable
CHINA	Not Applicable
KECL	Not Applicable
JAPAN:	Not Applicable
AICS	Not Applicable

EU Regulations

Annex I Index#	
Classification	Not Applicable
Risk Phrases	Not Applicable

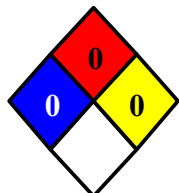
MSDS #: 10142 50-63-15 50-63-17 50-63-18 Phosphatase Wash Solution (5X)

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.).

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.

Material Safety Data Sheet



Revision Date: 1/21/2011

MSDS #: 10140 50-63-10 50-63-11 Phosphatase Wash Solution Concentrate (5X)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description

Phosphatase Wash Solution Concentrate (5X)

CATALOG NO.

50-63-10
50-63-11

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: cbowman@kpl.com

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USA- NATIONAL RESPONSE CENTER	Telephone: (1) 800 424 8802	Hours: 24 hours/day, 7 days/week

2. HAZARD IDENTIFICATION

Hazard Type	Not Hazardous
Principle Route of Exposure	Not Applicable
Acute Effects: Eye:	Not Applicable
Acute Effects: Skin:	Not Applicable
Acute Effects: Inhalation:	Not Applicable
Acute Effects: Ingestion:	Not Applicable
Chronic Effects:	Not Applicable
Additional Information	Not Applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
Phosphatase Wash Solution Concentrate (5X)	N.A	N.A	N.A

4. FIRST AID MEASURES

General Advice	Not Applicable
Oral Exposure	Rinse mouth
Inhalation Exposure	Fresh air, rest.
Skin Exposure	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	Use extinguishing media appropriate for surrounding fire.
Unusual Fire and Explosive Hazards	Not Applicable
Flash Point	Not Applicable
Autoignition Temperature	Not Applicable
Flammability Statement	Not Applicable
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

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

7. HANDLING AND STORAGE

Handling: Wear appropriate PPE.

Storage: Store at 2 – 8°C.

8. EXPOSURE CONTROL

Respiratory Protection	None required if good ventilation is maintained. Otherwise wear MSHA/NIDSH approved respirator suitable for vapor or mist concentrations encountered.
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, Colorless Solution. Relatively free of particulate matter
Physical State	Liquid
Odor	Not Applicable
Odor Threshold	Not Applicable
pH	Not Applicable
Boiling Point	Not Applicable
Evaporation Rate	Not Applicable
Vapor Density	Not Applicable
Vapor Pressure	Not Applicable
Relative Density	Not Applicable
Auto-Ignition Temperature	Not Applicable
Water Solubility	Dilutable
Flammability	Not Applicable
Flash Point	Not Applicable
Viscosity	Not Applicable
Oxidizing Properties	Not Applicable
Explosive Properties	Not Applicable
Additional Parameters	Not Available

10. STABILITY AND REACTIVITY

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

LD50 Oral	Not Applicable
LD50 Dermal	Not Applicable
LC50 Inhalation	Not Applicable

Chronic Toxicity

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

12. ECOLOGICAL MEASURES

Ecotoxicity	Not Applicable
Persistence/Degradability	Not Applicable
Mobility in Environmental Media	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

MSDS #: 10140

50-63-10

50-63-11

Phosphatase Wash Solution Concentrate (5X)

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 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)

N/A

State Regulations

California Proposition 65:

This product contains the following Proposition 65 chemicals: Not Listed

State Right to Know Act

Chemical Name	N.A
Massachusetts	Not Applicable
New Jersey	Not Applicable
Pennsylvania	Not Applicable
New York	Not Applicable
Rhode Island	Not Applicable

International Inventories

Chemical Name	N.A
TSCA	Not Applicable
DSL	Not Applicable
NDSL	Not Applicable
EINECS	Not Applicable
ELINCS	Not Applicable
CHINA	Not Applicable
KECL	Not Applicable
JAPAN:	Not Applicable
AICS	Not Applicable

EU Regulations

Annex I Index#

Classification	Not Applicable
Risk Phrases	Not Applicable

MSDS #: 10140

50-63-10

50-63-11

Phosphatase Wash Solution Concentrate (5X)

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.).

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.

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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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 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

Component	CHEMICAL	% Weight	CAS #:
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

Fire Acute Hazard: Combustible. Gives off irritating or toxic fumes (or gases) in a fire.	Fire Prevention: NO open flames.	Fire Fighting: Powder, alcohol-resistant foam, water spray, carbon dioxide.
Explosion Acute Hazard: Not Available	Not Available	Not Available
CHEMICAL DANGERS:	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.	
PHYSICAL DANGERS:	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

SPILLAGE DISPOSAL	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

STORAGE	Separated from oxidants . Dry.
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8. EXPOSURE CONTROL

Data for 100% Formamide

- | | |
|--------------------|--|
| •INHALATION | Ventilation. |
| •EYES | Face shield. |
| •SKIN | Protective clothing. |
| •INGESTION | 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

CHEMICAL DANGERS:	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.
PHYSICAL DANGERS:	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

Annex I Index#	Data for Formamide: 616-052-00-8
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
Risk Phrases	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.
Safety Phrases	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 and Indications of Danger	GHS08 Dgr: Danger
Specific Concentration Limits	Not Available
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 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: 9/13/2014

SDS #: SDS-10200-01

CDP-Star® Chemiluminescent
Phosphatase Substrate

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:

Product Code

CDP-Star® Chemiluminescent
Phosphatase Substrate

50-60-06

CDP-Star® Chemiluminescent
Phosphatase Substrate

50-60-05

CDP-Star® Chemiluminescent
Phosphatase Substrate

50-60-04

CDP-Star® Chemiluminescent
Phosphatase Substrate

50-60-03

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

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 to health or the environment.

Principle Route of Exposure

Not Available

Acute Effects: Eye:

May cause redness and irritation

Acute Effects: Skin:

Dry skin and Irritation may occur

Acute Effects: Inhalation:

May be harmful if inhaled in very large quantities.

SDS #: SDS-10200-01

CDP-Star® Chemiluminescent
Phosphatase Substrate

Acute Effects: Ingestion: May be harmful if swallowed.

Chronic Effects: Not Available

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>
CDP-Star® Chemiluminescent Phosphatase Substrate	Not Applicable	Not Applicable	Not Applicable

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

General Advice	Wash contaminated clothing before reuse. Consult a physician if irritation persists.
Oral Exposure	Rinse mouth. Refer for medical attention.
Inhalation Exposure	Remove subject to fresh air. Seek medical attention if necessary.
Skin Exposure	Rinse with copious amounts of water
Eye Exposure	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

5. FIRE FIGHTING MEASURES

Extinguishing media	Use extinguishing media appropriate for surrounding fire.
Unusual Fire and Explosive Hazards	Not Available
Flash Point	Not Available
Autoignition Temperature	Not Available
Flammability Statement	Not Available
Specific hazards arising from the chemical	Not Available
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

Personal Precautions	Avoid contact with skin, eyes and clothing.
Environmental Precautions	No special environmental precautions required. Should not be released into the environment.
Method of Containment	Contain spill and then clean-up with copious amounts of water.
Methods of Clean-up	Clean up of spills requires no special equipment or procedures. Clean with copious amounts of water.

Other Information Not Available

7. HANDLING AND STORAGE**Handling:** Wear appropriate PPE. Refer to section 8.**Storage:** Store at 2 – 8°C.**8. EXPOSURE CONTROL****Respiratory Protection** Ventilation, local exhaust, or breathing protection.**Eye Protection** Safety goggles.**Skin Protection** Protective gloves. Protective clothing.**Ingestion** Do not eat, drink, or smoke during work.**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	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 under normal conditions
Conditions to avoid	Not Available
Incompatibility Materials to Avoid	Not Available
Hazardous Decomposition Products	Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides, Sulphur Oxides, Hydrogen Chloride gas.
Hazardous Polymerization	Will not occur
Possibility of hazardous reactions	Not Available

11. TOXICOLOGY MEASURES**Acute Toxicity**

SDS #: SDS-10200-01

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	No Data Available
LD50 Dermal	No Data Available
LC50 Inhalation	No Data Available

Chronic Toxicity

Carcinogenicity	There are no known carcinogenic chemicals in this product.
Irritation	No Data Available
Corrosivity	No Data Available
Sensitization	No Data Available
Neurological Effects	No Data Available
Mutagenic Effects	No Data Available
Reproductive Effects	No Data Available
Developmental Effects	No Data Available
Target Organ Effects	No Data Available
Other adverse effects	Not Available

12. ECOLOGICAL MEASURES

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

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. 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 (OSHA HCS).

SDS #: SDS-10200-01

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 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 chemicals 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 **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# 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
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.).

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: 9/13/2014



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

General Advice	Wash contaminated clothing before reuse. Consult a physician if irritation persists.
Oral Exposure	Rinse mouth. Refer for medical attention.
Inhalation Exposure	Remove subject to fresh air. If not breathing, give artificial respiration. If breathing is labored, give oxygen. Seek medical attention.
Skin Exposure	First rinse with plenty of water, then remove contaminated clothes and rinse again. Refer for medical attention.
Eye Exposure	First rinse with plenty of water for several minutes (remove contact lenses if easily possible), then take to a doctor.

5. FIRE FIGHTING MEASURES

Extinguishing media	Foam, Alcohol Foam, CO ₂ , Dry Chemical and Water/Fog
Unusual Fire and Explosive Hazards	May emit toxic fumes under fire conditions.
Flash Point	Not Applicable
Autoignition Temperature	Not Available
Flammability Statement	Not Available
Specific hazards arising from the chemical	Not Available
Protective equipment and precautions for firefighters	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Avoid contact with skin and clothing.
Environmental Precautions	Not Applicable
Method of Containment	Collect leaking and spilled liquid in sealable containers as far as possible.
Methods of Clean-up	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.
Other Information	Not Applicable

7. HANDLING AND STORAGE

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

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.
Eye Protection	Safety goggles.
Skin Protection	Protective gloves. Protective clothing.
Ingestion	Do not eat, drink, or smoke during work.

9. PHYSICAL AND CHEMICAL PROPERTIES

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

10. STABILITY AND REACTIVITY

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

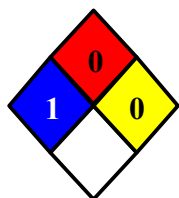
Annex I Index# Not Applicable
Classification Not Applicable:
 The product contains no substances which at their given concentration, are considered to be hazardous to health or the environment as per:
 GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
 Regulation (EC) No 1272/2008
Risk Phrases 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

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

Hazard Type	Irritant
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 Irritation
Acute Effects: Skin:	Absorption through skin may occur. May cause irritation to the skin
Acute Effects: Inhalation:	May cause irritation to the respiratory tract.
Acute Effects: Ingestion:	May be harmful if swallowed.
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>
Detector Block Powder	Proprietary Component (Trade Secret per 29 CFR 1910.1200 i 1)	100%	Proprietary

4. FIRST AID MEASURES

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

5. FIRE FIGHTING MEASURES

Extinguishing media	Dry Chemical extinguishers, water spray or foam.
Unusual Fire and Explosive Hazards	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.
Flash Point	550°F
Autoignition Temperature	Not Available
Flammability Statement	Not Flammable
Specific hazards arising from the chemical	Not Available
Protective equipment and precautions for firefighters	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

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

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

9. PHYSICAL AND CHEMICAL PROPERTIES

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

10. STABILITY AND REACTIVITY

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

LD50 Oral	Not Available
LD50 Dermal	Not Available
LC50 Inhalation	Not Available

Chronic Toxicity

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

12. ECOLOGICAL MEASURES

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

13. DISPOSAL MEASURES

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

14. TRANSPORTATION MEASURES

DOT:	Not Regulated
IATA:	Not Regulated
ADR (road)/ RID (rail):	Not Regulated

IMDG (sea): Not Regulated

General Transport Regulations Not 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

Chemical Name	Proprietary Component (Trade Secret per 29 CFR 1910.1200 i 1)
Massachusetts	Not Listed
New Jersey	Not Listed
Pennsylvania	Not Listed
New York	Not Listed
Rhode Island	Not Listed

International Inventories

Chemical Name	Proprietary Component (Trade Secret per 29 CFR 1910.1200 i 1)
TSCA	Not Applicable
DSL	Not Applicable
NDSL	Not Applicable
EINECS	Not Applicable
ELINCS	Not Applicable
CHINA	Not Applicable
KECL	Not Applicable
JAPAN:	Not Applicable
AICS	Not Applicable

EU Regulations

Annex I Index# Not Applicable

Classification	Not Applicable
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.).

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.