

Safety Data Sheet



Revision Date: 7/31/2014

SDS #: SDS-10256-01

Protein Detector AP Microwell Kit, Anti-Mouse and Anti-Rabbit

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:

Protein Detector AP Microwell Kit, Anti-Mouse and Anti-Rabbit

Product Code

55-81-50

Kit Components:

WASH(20X) SOLUTION	
AP LABELED GOAT ANTI-RABBIT IGG (H+L)	05-15-06
AP LABELED GOAT ANTI-MOUSE IGG (H+L)	05-18-06
10% BSA DILUENT/BLOCKING SOLUTION	50-61-01
50% GLYCEROL SOLUTION	50-83-00
COATING BUFFER SOLUTION	50-84-01
WASH(20X) SOLUTION	50-63-03
PHOSPHATASE SUBSTRATE SOLUTION A	50-88-05
BLUEPHOS®, SOLUTION B	50-88-06
APSTOP™ SOLUTION (10X)	50-89-01

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)

Safety Data Sheet



Revision Date: 6/27/2014

SDS #: 10106

10% BSA DILUENT/BLOCKING SOLUTION

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description	Product Code
10% BSA DILUENT/BLOCKING SOLUTION	50-61-00
	50-61-01
	50-61-10
	SPL-BSA

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
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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:	Absorption through skin may occur. May cause irritation to the skin
Acute Effects: Inhalation:	May cause irritation to the respiratory tract.

SDS #: 10106

10% BSA DILUENT/BLOCKING SOLUTION

Acute Effects: Ingestion: May be harmful if swallowed.

Chronic Effects:

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>
10% BSA DILUENT/BLOCKING SOLUTION	Sodium Phosphate, Dibasic (Anhydrous)	<2%	7558-79-4
GHS Classification	Not Applicable		

4. FIRST AID MEASURES

General Advice	Not Applicable
Oral Exposure	Rinse mouth
Inhalation Exposure	Not Applicable
Skin Exposure	Rinse with copious amounts of water
Eye Exposure	Rinse with copious amounts of water

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	Not Applicable
Environmental Precautions	Not Applicable

SDS #: 10106

10% BSA DILUENT/BLOCKING SOLUTION

Method of Containment	Containment of spills requires no special equipment or procedures.
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:	Keep container tightly closed.
Storage:	Store refrigerated (2 – 8°C) to minimize the risk of biological contamination. If crystals appear upon refrigeration, warm the bottle to 37°C with mixing to dissolve.

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 or drink

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Yellowish - Precipitation/ Crystalization may occur
Physical State	Liquid
Odor	Not Applicable
Odor Threshold	Not Applicable
pH	7.0 - 8.0
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	Semi Visous
Oxidizing Properties	Not Applicable
Explosive Properties	Not Applicable
Additional Parameters	See Datasheet for other Product Information.

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Conditions to avoid	Not Available

Incompatibility Materials to Avoid	Not Available
Hazardous Decomposition Products	None
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:	May be disposed via sanitary sewer.
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 (OSHA HCS).

SARA 313

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

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

Not Listed

State Regulations

California Proposition 65:

This product contains the following Proposition 65 chemicals: None Listed

State Right to Know Act

Chemical Name	Sodium Phosphate, Dibasic (Anhydrous)
Massachusetts	Listed
New Jersey	Listed
Pennsylvania	Listed
New York	Listed
Rhode Island	Listed

International Inventories

Chemical Name	Sodium Phosphate, Dibasic (Anhydrous)
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
Risk Phrases	Not Applicable
Safety Phrases	Not Applicable
Symbols and Indications of Danger	
Specific Concentration Limits	Not Applicable
Export and Import	Not Applicable
European Priority List	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.

Safety Data Sheet



Revision Date: 6/30/2014

MSDS #: 10304

Phosphatase Substrate Solution A

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
Phosphatase Substrate Solution A	50-88-13
Phosphatase Substrate Solution A	50-88-11
Phosphatase Substrate Solution A	50-88-09
Phosphatase Substrate Solution A	50-88-07
Phosphatase Substrate Solution A	50-88-05
Phosphatase Substrate Solution A	50-88-03

Hazardous Reagent
PHOSPHATASE SUBSTRATE SOLUTION

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:

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

2. HAZARD IDENTIFICATION

Hazard Type Causes Skin Irritation; Causes Eye Irritation; Harmful to Aquatic life with long lasting effects.

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

Classification Eye Irrit. 2
Skin Irrit. 2
Aquatic Chronic 3

Hazard Statement H319: Causes serious eye irritation
H315: Causes skin irritation
H412: Harmful to aquatic life with long lasting effects

Precautionary Statement P264: Wash skin thoroughly after handling.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P273: Avoid release to the environment.



Data for 100% Hazardous Chemical

ROUTES OF EXPOSURE:	The substance can be absorbed into the body by inhalation and by ingestion.
INHALATION RISK:	No indication can be given about the rate in which a harmful concentration in the air is reached on evaporation of this substance at 20°C.
SHORT-TERM EXPOSURE	The substance is corrosive to the eyes. The substance is severely irritating to the skin . The aerosol is irritating to the respiratory tract .
LONG-TERM EXPOSURE:	The substance may have effects on the liver when ingested.

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

EYES: Redness. Pain. Severe deep burns.

SKIN: Redness. Pain.

INHALATION: Cough. Sore throat.

INGESTION: Abdominal pain. Burning sensation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
Phosphatase Substrate Solution A	2-Amino-2-Methyl-1-Propanol, (AMP)	4%	124-68-5

Classification

Eye Irrit. 2
Skin Irrit. 2
Aquatic Chronic 3

4. FIRST AID MEASURES

Data for 100% Hazardous Chemical

Ingestion First Aid:	Rinse mouth. Do NOT induce vomiting. Give one or two glasses of water to drink. Refer for medical attention.
Inhalation First Aid:	Fresh air, rest. 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% Hazardous Chemical

Fire Acute Hazard:	Fire Prevention:	Fire Fighting:
Combustible. Gives off irritating or toxic fumes (or gases) in a fire.	NO open flames.	Powder, alcohol-resistant foam, water spray, carbon dioxide.
Explosion Acute Hazard:	Above 67°C use a closed system, ventilation.	Not Available
Above 67°C explosive vapour/air mixtures may be formed.		

CHEMICAL DANGERS: The substance decomposes on burning producing toxic fumes including nitrogen oxides . The solution in water is a medium strong base. Reacts with strong acids , strong oxidants .

PHYSICAL DANGERS: Not Available

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. For personal protection see section 8.
Environmental Precautions	Prevent further leakage or spillage if safe to do so. Should not be released into the environment.
Method of Containment	Absorb any spilt liquid with an absorbent (e.g. diatomite, vermiculite, sand) and dispose of according to regulations. Afterwards ventilate area and wash spill site.
Methods of Clean-up	Clean-up with copious amounts of water.
Other Information	Wear respiratory protection, eye protection, hand protection and body protection

Data for 100% Hazardous Chemical

SPILLAGE DISPOSAL Sweep spilled substance into covered containers; if appropriate, moisten first to prevent dusting. Carefully collect remainder, then remove to safe place. (Extra personal protection: A/P2 filter respirator for organic vapour and harmful dust.)

7. HANDLING AND STORAGE

Handling:	Avoid any contact when handling the substance. Prevent seepage into flooring. Take care to maintain clean working place. Do not leave container open. Fill only into labelled container.
Storage:	Containers have to be labelled clearly and permanently. Keep container tightly closed. Recommended storage at 2-8.

Data for 100% Hazardous Chemical

STORAGE Separated from strong oxidants, strong acids.

8. EXPOSURE CONTROL

Data for 100% Hazardous Chemical

• INHALATION	Local exhaust or breathing protection.
• EYES	Safety goggles, or eye protection in combination with breathing protection if powder.
• SKIN	Protective gloves.
• INGESTION	Do not eat, drink, or smoke during work.

Engineering Controls

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Clear Light Blue Solution
Physical State	Liquid
	pH: 9.7 - 10

Data for 100% Hazardous Chemical

Boiling point: °C	Melting point: 31°C	Density: 0.93	g/cm ³	Solubility in water:	miscible
Relative vapour density (air = 1): 3.0	Flash point:	67°C c.c.		Vapour pressure, Pa at 20°C:	133

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions
Incompatibility Materials to Avoid	Not Available
Hazardous Decomposition Products	May produce toxic fumes including nitrogen oxides.
Hazardous Polymerization	Will not polymerize

Data for 100% Hazardous Chemical

CHEMICAL DANGERS:	The substance decomposes on burning producing toxic fumes including nitrogen oxides . The solution in water is a medium strong base. Reacts with strong acids , strong oxidants .
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	LD50 oral rat Value: 2900 mg/kg Reference: Journal of the American College of Toxicology. Vol. 9(2), Pg. 203, 1990.
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LD50 Dermal Not Available

LC50 Inhalation Not Available

Chronic Toxicity

Carcinogenicity Not Available

Irritation Irritating to eyes, nose and throat.

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 Liver

Other adverse effects Not Available

12. ECOLOGICAL MEASURES

Ecotoxicity Data for 2-amino-2-methylpropanol: Harmful to aquatic life with long lasting effects.

Persistence/Degradability Not Available

Mobility in Environmental Media Not Available

Bioaccumulation/Accumulation Not Available

13. DISPOSAL MEASURES

Waste Disposal Method: Avoid escape into water, drainage, sewer, or the ground. If there is no way of recycling it must be disposed of in compliance with the respective national and local regulations.

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 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: None Listed

State Right to Know Act

Chemical Name	2-Amino-2-Methyl-1-Propanol, (AMP)
Massachusetts	Listed
New Jersey	Listed
Pennsylvania	Listed
New York	Not Listed
Rhode Island	Not Listed

International Inventories

Chemical Name	2-Amino-2-Methyl-1-Propanol, (AMP)
TSCA	Listed
DSL	Listed
NDSL	Not Listed
EINECS	Listed
CHINA	Listed
KECL	Listed
JAPAN:	Listed
AICS	Listed

EU Regulations

Annex I Index#	603-070-00-6
Classification	Eye Irrit. 2 Skin Irrit. 2 Aquatic Chronic 3
Risk Phrases	H319: Causes serious eye irritation H315: Causes skin irritation H412: Harmful to aquatic life with long lasting effects

Safety Phrases

P264: Wash skin thoroughly after handling.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P273: Avoid release to the environment.

Symbols and Indications of Danger

GHS07
Warning

Specific Concentration Limits

DSD Classification: C ≥ 10 % Xi; R36/38 : Irritating to Eyes and Skin

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: 6/30/2014

Safety Data Sheet



Revision Date: 7/31/2014

BluePhos® Phosphatase Substrate Solution B

SDS #: SDS-10305-01

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:

Product Code

BluePhos® Phosphatase Substrate Solution B	50-88-14
BluePhos® Phosphatase Substrate Solution B	50-88-12
BluePhos® Phosphatase Substrate Solution B	50-88-10
BluePhos® Phosphatase Substrate Solution B	50-88-08
BluePhos® Phosphatase Substrate Solution B	50-88-06
BluePhos® Phosphatase Substrate Solution B	50-88-04

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
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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-10305-01

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>
BluePhos® Phosphatase Substrate Solution B	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.

SDS #: SDS-10305-01

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	Yellow 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	See Datasheet for other Product Information.

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-10305-01

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-10305-01

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)

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
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Massachusetts	Not Applicable
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New Jersey	Not Applicable
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Pennsylvania	Not Applicable
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New York	Not Applicable
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Rhode Island	Not Applicable
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International Inventories

Chemical Name	Not Applicable
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TSCA	Not Applicable
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DSL	Not Applicable
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NDSL	Not Applicable
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EINECS	Not Applicable
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CHINA	Not Applicable
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KECL	Not Applicable
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JAPAN:	Not Applicable
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AICS	Not Applicable
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EU Regulations

Annex I Index#	Not Applicable
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Classification	Not Applicable: The product contains no substances which at their given concentration, are considered to be hazardous to health or the environment as per: GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Regulation (EC) No 1272/2008
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Risk Phrases	Not Applicable
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Safety Phrases	Not Applicable
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Symbols and Indications of Danger	Not Applicable
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Specific Concentration Limits	Not Applicable
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Export and Import	This substance is not listed in the Annex I of Regulation (EC) No 649/2012.
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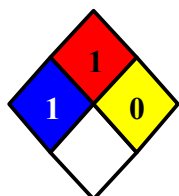
European Priority List	This substance is not listed in a priority list (as foreseen under Council Regulation (EEC) No 793/93 on the evaluation and control of the risks of existing substances.).
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16. OTHER INFORMATION

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: 7/31/2014

Material Safety Data Sheet



Revision Date: 10/21/2011

MSDS #: 10162

50-83-00

50% Glycerol Solution

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description

50% Glycerol Solution

CATALOG NO.

50-83-00

Hazardous Reagent

50% GLYCEROL SOLUTION

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	Health Hazard: Irritant Fire Hazard: Data for 100% Glycerol: Combustible
Principle Route of Exposure	Ingestion, Inhalation and Skin contact.
Acute Effects: Eye:	May cause redness and Irritation
Acute Effecta: Skin:	Dry skin.
Acute Effects: Inhalation:	Data for 100% Glycerol: Evaporation at 20°C is negligible; a nuisance-causing concentration of airborne particles can, however, be reached quickly on spraying.
Acute Effects: Ingestion:	Diarrhoea.
Chronic Effects:	Not Available
Additional Information	Not Available

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
50% Glycerol Solution	GLYCEROL	59%	56-81-5

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	Water spray. Alcohol-resistant foam. Dry powder. Carbon dioxide
Unusual Fire and Explosive Hazards	Data for 100% Glycerol: In case of fire: keep drums, etc., cool by spraying with water.
Flash Point	Data for 100% Glycerol: 176°C c.c.
Autoignition Temperature	Data for 100% Glycerol: 393°C
Flammability Statement	Combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Specific hazards arising from the chemical	Upon evaporation of water, glycerol may omit toxic fumes under fire conditions. In the event of fire and/or explosion do not breathe fumes.
Protective equipment and precautions for firefighters	Wear self-contained breathing apparatus and protective 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 liquid in covered containers. Absorb remaining liquid in sand or inert absorbent and remove to safe place.
Methods of Clean-up	Clean-up with copious amounts of water.
Other Information	Not Applicable

7. HANDLING AND STORAGE

Handling: Store at 4°C, refrigerated.

Storage: Separated from strong oxidants.

8. EXPOSURE CONTROL

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

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Clear Colorless solution.
Physical State Liquid
Odor Not Applicable
Odor Threshold Not Applicable
pH Not Applicable
Boiling Point Data for 100% Glycerol: 290°C
Evaporation Rate Not Applicable
Vapor Density Data for 100% Glycerol: 3.2
Vapor Pressure Data for 100% Glycerol: 0.01
Relative Density Data for 100% Glycerol: 1.26
Auto-Ignition Temperature Data for 100% Glycerol: 393°C
Water Solubility Dilutable
Flammability Data for 100% Glycerol: 393°C
Flash Point Data for 100% Glycerol: 176°C c.c.
Viscosity Viscous
Oxidizing Properties Not Applicable
Explosive Properties Data for 100% Glycerol: 2.6 - 11.3
Additional Parameters Not Applicable

10. STABILITY AND REACTIVITY

Chemical Stability Stable
Conditions to avoid Data for 100% Glycerol: NO open flames.
Incompatibility Materials to Avoid Strong oxidizing agents and strong bases
Hazardous Decomposition Products Carbon Monoxide, Carbon Dioxide
Hazardous Polymerization Will not occur
Possibility of hazardous reactions Data for 100% Glycerol: Reacts with strong oxidants causing fire and explosion hazard.

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% Glycerol: LD50 oral rat: 12600 mg/kg Reference: Federation Proceedings, Federation of American Societies for Experimental Biology. Vol. 4, Pg. 142, 1945.
LD50 Dermal	Data for 100% Glycerol: LD50 dermal rat/rabbit: > 10000 mg/kg Species: Rabbit Reference: BIOFAX Industrial Bio-Test Laboratories, Inc., Data Sheets. Vol. 9-4/1970,
LC50 Inhalation	Not Available
<u>Chronic Toxicity</u>	
Carcinogenicity	Not Applicable
Irritation	Yes - May Occur
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	Data for 100% Glycerol: Toxicity threshold (cell multiplication inhibition test) Algae (Microcystis aeruginosa) 2900 mg/l ; Protozoa (Entosiphon sulcatum) 3200 mg/l ; LC50 Goldfish >5000 mg/l/24 hr - modified ASTM D 1345 [Verschuere, K. Handbook of Environmental Data of Organic Chemicals. 2nd ed. New York, NY: Van Nostrand Reinhold Co., 1983., p. 695]
Persistence/Degradability	Data for 100% Glycerol: Readily biodegradable
Mobility in Environmental Media	Data for 100% Glycerol: Very high mobility in soil [Swann RL et al; Res Rev 85: 17-28 (1983)]
Bioaccumulation/Accumulation	Not expected

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 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 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.

State Regulations

California Proposition 65:

This product contains the following Proposition 65 chemicals: None Listed

State Right to Know Act

Chemical Name GLYCEROL

Massachusetts	Not Listed
New Jersey	Not Listed
Pennsylvania	Not Listed
New York	Not Listed
Rhode Island	Not Listed

International Inventories

Chemical Name GLYCEROL

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

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.

Safety Data Sheet



Revision Date: 7/30/2014

Coating Solution

SDS #: SDS-10323-01

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
Coating Solution	50-84-01
Coating Solution	50-84-00

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.
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>
Coating Solution	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
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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

SDS #: SDS-10323-01

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	Cloudy White Solution
Physical State	Liquid
Odor	Not Available
Odor Threshold	Not Available
pH	8.6 - 9.2
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	See Datasheet for other Product Information.

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

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

SDS #: SDS-10323-01

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).****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)

SDS #: SDS-10323-01

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: 7/30/2014

Safety Data Sheet



Revision Date: 6/27/2014

SDS #: 10133

20X Wash Solution Concentrate (Imidazole Buffered Saline with Tween 20)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description	Product Code
20X Wash Solution Concentrate (Imidazole Buffered Saline with Tween 20)	50-63-00
	50-63-01
	50-63-03
	50-63-04
	50-63-19
	SPL-WASH

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 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

SDS #: 10133

20X Wash Solution Concentrate (Imidazole Buffered Saline with Tween 20)

Acute Effects: Skin: May be absorbed. Dry skin. Redness.
Acute Effects: Inhalation: Not Applicable
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>
20X Wash Solution Concentrate (Imidazole Buffered Saline with Tween 20)	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

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 7.1 - 7.4

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

SDS #: 10133

20X Wash Solution Concentrate (Imidazole Buffered Saline with Tween 20)

Oxidizing Properties	Not Applicable
Explosive Properties	Not Applicable
Additional Parameters	See Datasheet for more product information.

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions
Conditions to avoid	Not Applicable
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 Available
LD50 Dermal	Not Available
LC50 Inhalation	Not Available

Chronic Toxicity

Carcinogenicity	Not Applicable
Irritation	Not Available
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 Available

12. ECOLOGICAL MEASURES

Ecotoxicity	Not Applicable
Persistence/Degradability	Not Applicable

SDS #: 10133

20X Wash Solution Concentrate (Imidazole Buffered Saline with Tween 20)

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 (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

SDS #: 10133

20X Wash Solution Concentrate (Imidazole Buffered Saline with Tween 20)

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: 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.).

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: 9/13/2014

APstop™ Solution

SDS #: SDS-10227-01

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
APstop™ Solution	50-89-02
APstop™ Solution	50-89-01
APstop™ Solution	50-89-00

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.
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>
APstop™ Solution	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
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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

SDS #: SDS-10227-01

Handling: Wear appropriate PPE. Refer to section 8.

Storage: Store at room temperature (22 – 28°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	Colorless 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	See Datasheet for other Product Information.

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

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

SDS #: SDS-10227-01

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).****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)

SDS #: SDS-10227-01

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.).

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Revision Date: 9/13/2014