

Safety Data Sheet



Revision Date: 7/31/2014

SDS #: SDS-10254-01

Protein G Agarose Kit

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:

Protein G Agarose Kit

Product Code

553-51-00

Kit Components:

Elution Buffer	50-68-01
Storage Buffer Solution	50-69-01
Bind/Wash Buffer	50-70-01
PD-10 COLUMN	80-00-10
Protein G Agarose	223-51-00

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: 7/30/2014

SDS # SDS-10324-01

Storage Buffer Solution

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:

Storage Buffer Solution

Product Code

50-69-01

Hazardous Reagent

Storage Buffer 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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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
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2. HAZARD IDENTIFICATION

Hazard Type

Fire Hazard: Flammable

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

Classification

Flammable liquids, Category 2; H225

Hazard Statement

H225: Highly flammable liquid and vapour.

Precautionary Statement

P210: Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. No smoking.

Symbols of Danger

GHS02 Dgr: Danger



Data for 100% Hazardous Chemical

ROUTES OF EXPOSURE:	The substance can be absorbed into the body by inhalation of its vapour and by ingestion.
INHALATION RISK:	A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C.
SHORT-TERM EXPOSURE	The substance irritates the eyes. Inhalation of high concentration of vapour may cause irritation of the eyes and respiratory tract. The substance may cause effects on the central nervous system .
LONG-TERM EXPOSURE:	The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system , resulting in irritation, headache, fatigue and lack of concentration. See Notes.

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

EYES: Redness. Pain. Burning.

SKIN: Dry skin.

INHALATION: Cough. Headache. Fatigue. Drowsiness.

INGESTION: Burning sensation. Headache. Confusion. Dizziness. Unconsciousness.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
Storage Buffer Solution	Ethyl Alcohol	20%	64-17-5

Classification Flammable liquids, Category 2; H225

4. FIRST AID MEASURES

Data for 100% Hazardous Chemical

Ingestion First Aid:	Rinse mouth. Refer for medical attention.
Inhalation First Aid:	Fresh air, rest.
Skin First Aid:	Remove contaminated clothes. Rinse and then wash skin with water and soap.
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:
Highly flammable.	NO open flames, NO sparks, and NO smoking. NO contact with strong oxidants.	Powder, alcohol-resistant foam, water in large amounts, carbon dioxide.
Explosion Acute Hazard:		
Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Do NOT use compressed air for filling, discharging, or handling.	In case of fire: keep drums, etc., cool by spraying with water.
CHEMICAL DANGERS:	Reacts slowly with calcium hypochlorite, silver oxide and ammonia, causing fire and explosion hazard. Reacts violently with strong oxidants such as nitric acid, silver nitrate, mercuric nitrate or magnesium perchlorate, causing fire and explosion hazard.	
PHYSICAL DANGERS:	The vapour mixes well with air, explosive mixtures are easily formed.	

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear appropriate personal protective clothing to prevent skin contact. Remove: Work clothing that becomes wet should be immediately removed due to its flammability hazard(i.e. for liquids with flash point < 100°F)
Environmental Precautions	Not Available
Method of Containment	Collect leaking and spilled liquid in sealable containers as far as possible.
Methods of Clean-up	Wash away remainder with plenty of water.
Other Information	Data for 100% Ethyl Alcohol: Non-Fire Response

Keep sparks, flames, and other sources of ignition away. Keep material out of water sources and sewers. Build dikes to contain flow as necessary. Attempt to stop leak if without undue personnel hazard. Use water spray to knock-down vapor.

Land spill: Dig a pit, pond, lagoon, holding area to contain liquid or solid material. Dike surface flow using soil, sand bags, foamed polyurethane, or foamed concrete. Absorb bulk liquid with fly ash, cement powder, or commercial sorbents.

Water spill: Use natural barriers or oil spill control booms to limit spill travel. Remove trapped material with suction hoses. (AAR, 2003)

Data for 100% Hazardous Chemical

SPILLAGE DISPOSAL	Ventilation. Remove all ignition sources. Collect leaking and spilled liquid in sealable containers as far as possible. Wash away remainder with plenty of water.
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7. HANDLING AND STORAGE

Handling: Wear appropriate PPE.

Storage: Keep tightly closed and store at 2 - 8°C.

Data for 100% Hazardous Chemical

STORAGE	Fireproof. Separated from strong oxidants.
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8. EXPOSURE CONTROL**Data for 100% Hazardous Chemical**

- INHALATION** Ventilation, local exhaust, or breathing protection.
- EYES** Safety goggles.
- SKIN** Protective gloves.
- INGESTION** Do not eat, drink, or smoke during work.

Engineering Controls NIOSH/OSHA
Up to 3300 ppm:
(APF = 10) Any supplied-air respirator
(APF = 50) Any self-contained breathing apparatus with a full facepiece

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Colorless Solution

Physical State Liquid **pH:** 7.9 - 8.1

Data for 100% Hazardous Chemical

	Boiling point: 79°C	Melting point: -117°C	Relative density (water = 1): 0.8	Solubility in water:	miscible
Vapour pressure, kPa at 20°C: 5.8					
Relative vapour density (air = 1): 1.6	Relative density of the vapour/air-mixture at 20°C (air = 1): 1.03	Flash point: 13°C c.c.	Auto-ignition temperature: 363°C	Explosive limits, vol% in air: 3.3-19	Octanol/water partition coefficient as log Pow: -0.32

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions

Incompatibility Materials to Avoid Oxidizing agents, Peroxides, Acids, Acid Chlorides, Acid Anhydrides, Alkali Metals, and Ammonia.

Hazardous Decomposition Products Carbon Monoxide, Carbon Dioxide

Hazardous Polymerization Will not occur

Data for 100% Hazardous Chemical

CHEMICAL DANGERS:	Reacts slowly with calcium hypochlorite, silver oxide and ammonia, causing fire and explosion hazard. Reacts violently with strong oxidants such as nitric acid, silver nitrate, mercuric nitrate or magnesium perchlorate, causing fire and explosion hazard.
PHYSICAL DANGERS:	The vapour mixes well with air, explosive mixtures are easily formed.

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% Ethyl Alcohol: LD50 Mouse oral 3450 mg/kg; LD50 Guinea pig oral 5.6 g/kg
LD50 Dermal	Data for 100% Ethyl Alcohol: LD50 Rat iv 1440 mg/kg; LD50 Mouse iv 1973 mg/kg
LC50 Inhalation	Data for 100% Ethyl Alcohol: LC50 Mouse inhalation 39 mg/cu m/4 hr; LC50 Rat inhalation 20000 ppm/ 10 hr

Chronic Toxicity

Carcinogenicity	Data for 100% Ethanol: MAK-COMMISSION - Category 5 (No considerable risk)
Irritation	Data for 100% Ethanol: An eye and skin irritant
Corrosivity	Not Available
Sensitization	Not Available
Neurological Effects	Not Available
Mutagenic Effects	Data for 100% Ethyl Alcohol: MAK COMMISSION Germ Cell Mutagenic- Category 5 (Substance with minima effect)
Reproductive Effects	Data for 100% Ethyl Alcohol: Ethanol consumption during pregnancy may adversely affect the unborn child. MAK COMMISSION - Group C (There is no reason to fear a risk of damage to the developing embryo or foetus when MAK and BAT values are adhered to.)
Developmental Effects	Not Available
Target Organ Effects	Data for 100% Ethyl Alcohol: Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system
Other adverse effects	Data for 100% Ethyl Alcohol: Effects of short-term exposure The substance irritates the eyes. Inhalation of high concentration of vapour may cause irritation of the eyes and respiratory tract. The substance may cause effects on the central nervous system. Effects of long-term or repeated exposure The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration.

12. ECOLOGICAL MEASURES

Ecotoxicity	Data for 100% Ethanol: Crustacean (Daphnia magna) EC50 (IMM) 48 hr 9.300 mg/L ; NOEC (Reproduction Rate) 9 day 9.6 mg/L (Slightly harmful in the aquatic environment or otherwise designed for biocidal action)
Persistence/Degradability	Data for 100% Ethanol: Readily biodegradable (74% after 5 days)
Mobility in Environmental Media	Not Available
Bioaccumulation/ Accumulation	Data for 100% Ethanol: Not likely to bioaccumulate (calculated logBCF=0.5).

13. DISPOSAL MEASURES

Waste Disposal Method: Treatment, storage and transportation must comply with 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: UN-Number : 1170
UN Hazard Class: 3 (Flammable Liquids)
UN Pack Group: II (Medium/ low danger)

IATA: Not Available

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

IMDG (sea): Not Available

General Transport Regulations Data for 100% Ethyl Alcohol:
Transport Emergency Card: TEC (R)-30S1170
NFPA Code: H 0; F 3; R 0

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)

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: Not Listed

State Right to Know Act

Chemical Name	Ethyl Alcohol
Massachusetts	Listed
New Jersey	Listed
Pennsylvania	Listed
New York	Listed
Rhode Island	Not Listed

International Inventories

Chemical Name	Ethyl Alcohol
TSCA	Listed
DSL	Listed
NDSL	Not Listed
EINECS	Listed
CHINA	Listed
KECL	Listed
JAPAN:	Listed
AICS	Listed

EU Regulations

Annex I Index#

Annex I Index# : 603-002-00-5

	Substance Name in Annex 1 : ethanol ethyl alcohol
Classification	Flammable liquids, Category 2; H225
Risk Phrases	H225: Highly flammable liquid and vapour.
Safety Phrases	P210: Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. No smoking.
Symbols and Indications of Danger	GHS02 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: 7/30/2014

Safety Data Sheet



Revision Date: 7/30/2014

SDS # SDS-10007-02

Protein G Agarose

1. PRODUCT AND COMPANY IDENTIFICATION

Product Description:	Product Code
Protein G Agarose	223-51-02
Protein G Agarose	223-51-01
Protein G Agarose	223-51-00

Hazardous Reagent	Hazardous Reagent Product code
Protein G Agarose	223-51-00
	223-51-01
	223-51-02

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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CANADIAN TRANSPORT EMERGENCY CENTER	Telephone: (1) 613 996 6666	Hours: 24 hours/day, 7 days/week
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CHEMTREC: CHEMTREC Customer Number:- CCN12505*
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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 Fire Hazard: Flammable

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

Classification Flammable liquids, Category 2; H225

Hazard Statement H225: Highly flammable liquid and vapour.

Precautionary Statement P210: Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. No smoking.

Symbols of Danger GHS02 Dgr: Danger



Data for 100% Hazardous Chemical

ROUTES OF EXPOSURE:	The substance can be absorbed into the body by inhalation of its vapour and by ingestion.
INHALATION RISK:	A harmful contamination of the air will be reached rather slowly on evaporation of this substance at 20°C.
SHORT-TERM EXPOSURE	The substance irritates the eyes. Inhalation of high concentration of vapour may cause irritation of the eyes and respiratory tract. The substance may cause effects on the central nervous system .
LONG-TERM EXPOSURE:	The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system , resulting in irritation, headache, fatigue and lack of concentration. See Notes.

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

EYES: Redness. Pain. Burning.

SKIN: Dry skin.

INHALATION: Cough. Headache. Fatigue. Drowsiness.

INGESTION: Burning sensation. Headache. Confusion. Dizziness. Unconsciousness.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CHEMICAL</u>	<u>% Weight</u>	<u>CAS #:</u>
Protein G Agarose	Ethyl Alcohol	14 - 19%	64-17-5

Classification Flammable liquids, Category 2; H225

4. FIRST AID MEASURES

Data for 100% Hazardous Chemical

Ingestion First Aid:	Rinse mouth. Refer for medical attention.
Inhalation First Aid:	Fresh air, rest.
Skin First Aid:	Remove contaminated clothes. Rinse and then wash skin with water and soap.
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:
Highly flammable.	NO open flames, NO sparks, and NO smoking. NO contact with strong oxidants.	Powder, alcohol-resistant foam, water in large amounts, carbon dioxide.
Explosion Acute Hazard:		
Vapour/air mixtures are explosive.	Closed system, ventilation, explosion-proof electrical equipment and lighting. Do NOT use compressed air for filling, discharging, or handling.	In case of fire: keep drums, etc., cool by spraying with water.
CHEMICAL DANGERS:	Reacts slowly with calcium hypochlorite, silver oxide and ammonia, causing fire and explosion hazard. Reacts violently with strong oxidants such as nitric acid, silver nitrate, mercuric nitrate or magnesium perchlorate, causing fire and explosion hazard.	
PHYSICAL DANGERS:	The vapour mixes well with air, explosive mixtures are easily formed.	

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Wear appropriate personal protective clothing to prevent skin contact. Remove: Work clothing that becomes wet should be immediately removed due to its flammability hazard(i.e. for liquids with flash point < 100°F)
Environmental Precautions	Not Available
Method of Containment	Collect leaking and spilled liquid in sealable containers as far as possible.
Methods of Clean-up	Wash away remainder with plenty of water.

Other Information

Data for 100% Ethyl Alcohol: Non-Fire Response

Keep sparks, flames, and other sources of ignition away. Keep material out of water sources and sewers. Build dikes to contain flow as necessary. Attempt to stop leak if without undue personnel hazard. Use water spray to knock-down vapor.

Land spill: Dig a pit, pond, lagoon, holding area to contain liquid or solid material. Dike surface flow using soil, sand bags, foamed polyurethane, or foamed concrete. Absorb bulk liquid with fly ash, cement powder, or commercial sorbents.

Water spill: Use natural barriers or oil spill control booms to limit spill travel. Remove trapped material with suction hoses. (AAR, 2003)

Data for 100% Hazardous Chemical**SPILLAGE
DISPOSAL**

Ventilation. Remove all ignition sources. Collect leaking and spilled liquid in sealable containers as far as possible. Wash away remainder with plenty of water.

7. HANDLING AND STORAGE

Handling: Wear appropriate PPE. See section 8

Storage: Store at 2-8 °C separated from strong oxidants.

Data for 100% Hazardous Chemical**STORAGE**

Fireproof. Separated from strong oxidants.

8. EXPOSURE CONTROL**Data for 100% Hazardous Chemical**

- INHALATION** Ventilation, local exhaust, or breathing protection.
- EYES** Safety goggles.
- SKIN** Protective gloves.
- INGESTION** Do not eat, drink, or smoke during work.

Engineering Controls

NIOSH/OSHA

Up to 3300 ppm:

(APF = 10) Any supplied-air respirator

(APF = 50) Any self-contained breathing apparatus with a full facepiece

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance White beads in suspension.

Physical State Liquid Suspension

pH: Not Available

Data for 100% Hazardous Chemical

	Boiling point: 79°C	Melting point: -117°C	Relative density (water = 1): 0.8	Solubility in water:	miscible
Vapour pressure, kPa at 20°C: 5.8					
Relative vapour density (air = 1): 1.6	Relative density of the vapour/air-mixture at 20°C (air = 1): 1.03	Flash point: 13°C c.c.	Auto-ignition temperature: 363°C	Explosive limits, vol% in air: 3.3-19	Octanol/water partition coefficient as log Pow: -0.32

10. STABILITY AND REACTIVITY

Chemical Stability Stable under normal conditions

Incompatibility Materials to Avoid Oxidizing agents, Peroxides, Acids, Acid Chlorides, Acid Anhydrides, Alkali Metals, and Ammonia.

Hazardous Decomposition Products Carbon Monoxide, Carbon Dioxide

Hazardous Polymerization Will not occur

Data for 100% Hazardous Chemical

CHEMICAL DANGERS:	Reacts slowly with calcium hypochlorite, silver oxide and ammonia, causing fire and explosion hazard. Reacts violently with strong oxidants such as nitric acid, silver nitrate, mercuric nitrate or magnesium perchlorate, causing fire and explosion hazard.
PHYSICAL DANGERS:	The vapour mixes well with air, explosive mixtures are easily formed.

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% Ethyl Alcohol: LD50 Mouse oral 3450 mg/kg; LD50 Guinea pig oral 5.6 g/kg
LD50 Dermal	Data for 100% Ethyl Alcohol: LD50 Rat iv 1440 mg/kg; LD50 Mouse iv 1973 mg/kg
LC50 Inhalation	Data for 100% Ethyl Alcohol: LC50 Mouse inhalation 39 mg/cu m/4 hr; LC50 Rat inhalation 20000 ppm/ 10 hr

Chronic Toxicity

Carcinogenicity	Data for 100% Ethanol: MAK-COMMISSION - Category 5 (No considerable risk)
Irritation	Data for 100% Ethanol: An eye and skin irritant
Corrosivity	Not Available
Sensitization	Not Available
Neurological Effects	Not Available
Mutagenic Effects	Data for 100% Ethyl Alcohol: MAK COMMISSION Germ Cell Mutagenic- Category 5 (Substance with minima effect)
Reproductive Effects	Data for 100% Ethyl Alcohol: Ethanol consumption during pregnancy may adversely affect the unborn child. MAK COMMISSION - Group C (There is no reason to fear a risk of damage to the developing embryo or foetus when MAK and BAT values are adhered to.)
Developmental Effects	Not Available
Target Organ Effects	Data for 100% Ethyl Alcohol: Target Organs Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system
Other adverse effects	Data for 100% Ethyl Alcohol: Effects of short-term exposure The substance irritates the eyes. Inhalation of high concentration of vapour may cause irritation of the eyes and respiratory tract. The substance may cause effects on the central nervous system. Effects of long-term or repeated exposure The liquid defats the skin. The substance may have effects on the upper respiratory tract and central nervous system, resulting in irritation, headache, fatigue and lack of concentration.

12. ECOLOGICAL MEASURES

Ecotoxicity	Data for 100% Ethanol: Crustacean (Daphnia magna) EC50 (IMM) 48 hr 9.300 mg/L ; NOEC (Reproduction Rate) 9 day 9.6 mg/L (Slightly harmful in the aquatic environment or otherwise designed for biocidal action)
Persistence/Degradability	Data for 100% Ethanol: Readily biodegradable (74% after 5 days)
Mobility in Environmental Media	Not Available
Bioaccumulation/Accumulation	Data for 100% Ethanol: Not likely to bioaccumulate (calculated logBCF=0.5).

13. DISPOSAL MEASURES

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

Contaminated Packaging: Dispose of in compliance with the respective national and local regulations.

US EPA Waste Number: Not Available

14. TRANSPORTATION MEASURES

DOT: Data for 100% Ethyl Alcohol
UN-Number : 1170
UN Hazard Class: 3 (Flammable Liquids)
UN Pack Group: II (Medium/ low danger)

IATA: Not Available

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

IMDG (sea): Not Available

General Transport Regulations Data for 100% Ethyl Alcohol
Transport Emergency Card: TEC (R)-30S1170
NFPA Code: H 0; F 3; R 0

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)

Not Listed

State Regulations

California Proposition 65:

This product contains the following Proposition 65 chemicals: Not Listed

State Right to Know Act

Chemical Name	Ethyl Alcohol
Massachusetts	Listed
New Jersey	Listed
Pennsylvania	Listed
New York	Listed
Rhode Island	Not Listed

International Inventories

Chemical Name	Ethyl Alcohol
TSCA	Listed
DSL	Listed
NDSL	Not Listed
EINECS	Listed
CHINA	Listed
KECL	Listed
JAPAN:	Listed
AICS	Listed

EU Regulations

Annex I Index#

Annex I Index# : 603-002-00-5
Substance Name

in Annex 1 : ethanol
ethyl alcohol

Classification

Flammable liquids, Category 2; H225

Risk Phrases

H225: Highly flammable liquid and vapour.

Safety Phrases

P210: Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. No smoking.

Symbols and Indications of Danger

GHS02 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: 7/30/2014