Safety Data Sheet [according to Regulation (EC) No. 1907/2006]

Version number: 5.0

Revision date: 13-MAY-2015 (supersedes all previous MSDS or SDS documents provided for this product).

SECTION 1 - Identification of the substance/mixture and of the company/undertaking

1.1 **Product Identifiers**

Product Name: PrepStain™ Alcohol Blend Rinse

Product Codes: SPGY-0107-5000; 490506

1.2 **Relevant identified uses of the substance or mixture and uses advised against**

Relevant Identified Uses: In-vitro diagnostics preparation.

1.3 **Details of the supplier of the safety data sheet**

Company:

Source BioScience plc
1 Orchard Place
Nottingham Business Park
Nottingham, NG8 6PX
Tel: +44(0)115 973 9018
Fax: +44(0)115 973 9021
E-mail: sales@sourcebioscience.com

1.4 Emergency Telephone Number:

+44(0)115 973 9018
Opening hours 08:00 – 18:00 GMT Monday to Friday
English language service ONLY.

SECTION 2 - Hazards identification

2.1 **Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 using the bridging principle:

Flammable liquids (Category 2), H225
Eye irritation (Category 2), H319
Specific Target Organ Toxicity Single Exposure (Category 2), H371

Classification according to EU Directive 1999/45/EC:

X_n – Harmful, R40
X_i – Irritant, R36
F – Highly flammable, R11

Additional information:R67

For the full text of the H statements and R-phrases mentioned in this Section, see Section 16.

2.2 **Label elements**

Label according Regulation (EC) No 1272/2008:

Hazard pictograms:

Signal word: Danger

Hazard statements:	H225	Highly flammable liquid and vapour.
	H319	Causes serious eye irritation.
	H371	May cause damage to organs.
Precautionary statements:	P210	Keep away from heat/sparks/open flames/hot surfaces - No smoking.
	P403+P233 +P235	Store in a well ventilated place. Keep container tightly closed. Keep cool.
	P260	Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
	P270	Do not eat, drink, smoke when using this product.
	P303+P361 +P353	IF ON SKIN: Take off immediately all contaminated clothing. Rinse skin with water/shower.
	P280	Wear protective gloves/protective clothing/eye protection/face protection.

		P305+P351 +P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.
		P501	Dispose of contents/container via a licenced waste contractor.
	Supplemental hazard statements:		None
2.3	**Other hazards**	None	

SECTION 3 - Composition/information on ingredients

3.2 **Mixtures**

Name	CAS No.	REACH Registration No.	% v/v
Isopropanol	67-63-0	01-2119457558-25-XXXX	50
Ethanol	64-17-5	01-2119457610-43-XXXX	48
Methanol	67-56-1	01-2119392409-28-XXXX	2

SECTION 4 - First aid measures

4.1 **Description of first aid measures**

General notes:	Consult a physician. Show this safety data sheet to the doctor in attendance.
After skin contact:	Wash off with soap and plenty of water and SEEK MEDICAL ADVICE.
After eye contact:	Rinse with water for at least 15 minutes and then SEEK MEDICAL ADVICE.
After ingestion:	Do NOT induce vomiting. Wash mouth thoroughly with water and SEEK MEDICAL ADVICE.
After inhalation:	Move person into fresh air. If not breathing, give artificial respiration and SEEK MEDICAL ADVICE.

4.2 **Most important symptoms and effects, both acute and delayed**

Effects as described in section 2.2.

4.3 **Indication of any immediate medical attention and special treatment needed**

No data available.

SECTION 5 - Fire fighting measures

5.1 **Extinguishing media**

Suitable extinguishing media:	Use water spray, alcohol resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media:	Standard water based foam.

5.2 **Special hazards arising from the substance or mixture product**

Hazardous combustion products: Carbon oxides.

5.3 **Advice for fire-fighters**

Wear self-contained breathing apparatus.

SECTION 6 - Accidental release measures

6.1 **Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment – see section 8.
For large spillages evacuate area and prevent access to spillage area during clean up.
Remove sources of ignition.
Potential for vapours to accumulate to produce an explosive atmosphere.
Vapour can accumulate at low level.

6.2 **Environmental precautions**

Prevent product from entering surface or ground water drains.

6.3	**Methods and materials for containment and cleaning up** Soak up with inert absorbent material and dispose of as hazardous waste. Clean site of spillage with water and detergent. Where appropriate use signage to indicate wet surface / a slip hazard.
6.4	**Reference to other sections** Refer to sections 8 and 13.

SECTION 7 - Handling and storage

7.1	**Precautions for safe handling**	
	Measures to prevent fire:	Do not use in close proximity to naked flame, hot surface and other potential sources of ignition.
	Measures to prevent aerosol and dust generation: Measures to protect the environment: Advice on general occupational health:	Use in a well ventilated area. Prevent entry to surface drains and ground water. Do not eat, drink or smoke whilst handling this product. Remove any contaminated clothing or protective equipment before leaving the work area. Wash hands after use.
7.2	**Conditions for safe storage** Store in a cool place away from potential sources of ignition and incompatible materials (see section 10).	

SECTION 8 - Exposure controls/personal protection

8.1	**Control parameters** The following occupational exposure limit values exist for substances contained in this product according to EH40/2005 Workplace Exposure Limits (UK). Isopropanol – LTEL 400ppm / 999mg.m^{-3} ; STEL 500ppm / 1250mg.m^{-3} Ethanol – LTEL 1000ppm / 1920mg.m^{-3} Methanol – LTEL 200ppm / 266mg.m^{-3} ; STEL 250ppm / 333mg.m^{-3} ; Sk	
8.2	**Exposure controls**	
	Appropriate engineering controls:	Control inhalation risk with local exhaust ventilation (LEV) appropriate for the volume being handled.
	Personal protective equipment:	When handling large volumes wear eye protection conforming to EN 166. Use natural or nitrile rubber gloves conforming to EN 374 shown to be chemically resistant to categories A. Where inhalation risk is not adequately mitigated with LEV use respiratory protective equipment either a full face mask conforming to EN 136 or valve filtering half mask to EN405 or half mask to EN140. Use type A (brown; organic gases and vapours, boiling point above 65°C) type filter conforming to EN371. Where RPE is used a face fit test should be carried out.
	Environmental exposure controls:	Refer to sections 6 and 13.

SECTION 9 - Physical and chemical properties

9.1 **Information on basic physical and chemical properties**

a)	Appearance	Clear, colourless liquid
b)	Odour	Mild alcohol
c)	Odour threshold	No data available
d)	pH	No data available
e)	Melting point/freezing point	No data available
f)	Initial boiling point and boiling range	78°C
g)	Flash point	10°C
h)	Evaporation rate	No data available
i)	Flammability	Highly flammable
j)	Upper/lower flammability or explosive limits	LEL – 2%; UEL – 15%
k)	Vapour pressure	No data available
l)	Vapour density	No data available
m)	Relative density	0.79 g.cm^{-3}
n)	Solubility(ies)	Miscible with water
o)	Partition coefficient (n-octanol/water)	No data available
p)	Auto-ignition temperature	425°C

q)	Decomposition temperature	No data available
r)	Viscosity	No data available
s)	Explosive properties	No data available
t)	Oxidising properties	No data available

SECTION 10 - Stability and Reactivity

10.1 Reactivity
Can react with oxidising agents.

10.2 Chemical stability
Stable under normal conditions of storage and use.

10.3 Possibility of hazardous reactions
Not data available.

10.4 Conditions to avoid
Keep away from flames, hot surfaces and other sources of ignition.
Storage with incompatible materials.

10.5 Incompatible materials
Strong oxidising agents.

10.6 Hazardous decomposition products
No data available.

SECTION 11 - Toxicological information

11.1 Information on toxicological effects
No test information available for this product.
Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

For Isopropanol:

Acute Toxicity:	LC_{50} Inhalation – rat – 4h – 72.6mg/l LD_{50} Oral – rat – 5840mg/kg LD_{50} Dermal – rat – 13900mg/kg LD_{50} Dermal – rabbit – 12870mg/kg Based on the data available the classification criteria are not met.
Skin corrosion/irritation:	Based on the data available the classification criteria are not met.
Serious eye damage/irritation:	Category 2
Respiratory or skin sensitisation:	Based on the data available the classification criteria are not met.
Germ cell mutagenicity:	Based on the data available the classification criteria are not met. Based on the data available the classification criteria are not met. Mutagenic effects have occurred in experimental animals.
Carcinogenicity:	IARC Group 3 – Not classifiable as to its carcinogenicity to humans.
Reproductive toxicity:	Based on the data available the classification criteria are not met. Experiments have shown reproductive toxicity effects, developmental effects and teratogenicity in animals.
STOT – single exposure:	Category 3
STOT – repeated exposure:	Based on the data available the classification criteria are not met. Target organs – skin, respiratory system, eyes, central nervous system, liver, kidney.
Aspiration hazard:	Based on the data available the classification criteria are not met.

For Ethanol:

Acute Toxicity:	LC_{50} Inhalation – rat – 10h – 20000ppm LD_{50} Oral – rat – 7060mg/kg Based on the data available the classification criteria are not met.
Skin corrosion/irritation:	Based on the data available the classification criteria are not met.
Serious eye damage/irritation:	Category 2
Respiratory or skin sensitisation:	Based on the data available the classification criteria are not met.
Germ cell mutagenicity:	Based on the data available the classification criteria are not met. Mutagenic effects have occurred in humans.
Carcinogenicity:	IARC Group 1 – Classified as carcinogenicity to humans.
Reproductive toxicity:	Based on the data available the classification criteria are not met. Adverse reproductive effects have occurred in humans and substance is known to cause developmental toxicity in humans. Teratogenic effects have occurred in humans.

	STOT – single exposure:	Based on available data, the classification criteria are not met.
	STOT – repeated exposure:	Based on available data, the classification criteria are not met. Target organs - eyes, central nervous system, reproductive system, liver, kidney, blood.
	Aspiration hazard:	Based on available data, the classification criteria are not met.
	For Methanol:	
	Acute Toxicity:	LD_{LO} – oral – human – 143 mg/kg LD_{50} Oral – rat – 2,769 mg/kg LC_{50} Inhalation – rat – 4 h – 128.2 mg/l LC_{50} Inhalation – rat – 6 h – 87.6 mg/l LD_{50} Dermal – rabbit – > 17,100 mg/kg Category 3 – oral, dermal and inhalation
	Skin corrosion/irritation:	Based on the data available the classification criteria are not met.
	Serious eye damage/irritation:	Based on the data available the classification criteria are not met.
	Respiratory or skin sensitisation:	Based on the data available the classification criteria are not met.
	Germ cell mutagenicity:	Based on the data available the classification criteria are not met. (Mutagenic effects in animals have been recorded).
	Carcinogenicity:	Not identified as a probable, possible or confirmed human carcinogen by IARC.
	Reproductive toxicity:	Based on the data available the classification criteria are not met. (Reproductive toxicity and development effects in animals have been recorded).
	STOT – single exposure:	Category 1
	STOT – repeated exposure:	Based on the data available the classification criteria are not met. Target organs - gastrointestinal tract, central nervous system, eyes, respiratory system, skin, optic nerve, liver, kidney, spleen and blood.
	Aspiration hazard:	Based on the data available the classification criteria are not met.

SECTION 12 - Ecological information

12.1	**Toxicity** No test information available for this product.	
	For Isopropanol:	
	Toxicity to fish mortality:	LC_{50} – Pimephales promelas (Fathead minnow) – 96 h – 9640mg/l
	Toxicity to daphnia and other aquatic invertebrates:	Immobilisation EC_{50} – Daphnia magna (Water flea) – 24h – >2000mg/l EC_{50} – Daphnia magna (Water flea) – 24h - 5102mg/l
	Toxicity to algae:	EC_{50} – Chlorella vulgaris (fresh water algae) – 72 h – >1000mg/l
	Toxicity to microorganisms:	EC_{50} – Chlorella vulgaris (fresh water algae) – 96 h – >1000mg/l EC_{50} – Photobacterium phosphoreum – 5 min – 35390mg/l
	For Ethanol:	
	Toxicity to fish mortality:	LC_{50} – Pimephales promelas (Fathead minnow) – 96 h – 14200mg/l
	Toxicity to daphnia and other aquatic invertebrates:	EC_{50} – Daphnia magna (Water flea) – 48h – 9268mg/l EC_{50} – Daphnia magna (Water flea) – 24h – 10800mg/l
	Toxicity to algae:	EC_{50} – Chlorella vulgaris (fresh water algae) – 72 h – 275mg/l
	Toxicity to microorganisms:	EC_{50} – Photobacterium phosphoreum – 30 min – 34634mg/l EC_{50} – Photobacterium phosphoreum – 5 min – 35470mg/l
	For Methanol:	
	Toxicity to fish mortality:	LC_{50} – Pimephales promelas (Fathead minnow) – 96 h – >10000mg/l
	Toxicity to daphnia and other aquatic invertebrates:	EC_{50} – Daphnia magna (Water flea) – 24h – >10000mg/l
	Toxicity to algae:	No data available
	Toxicity to microorganisms:	EC_{50} – Photobacterium phosphoreum – 25 min – 39000mg/l EC_{50} – Photobacterium phosphoreum – 15 min – 40000mg/l EC_{50} – Photobacterium phosphoreum – 5 min – 43000mg/l
12.2	**Persistence and Degradability** Readily biodegradable and therefore unlikely to be persistence.	
12.3	**Bioaccumulative potential** No test information available for this product.	
12.4	**Mobility in soil**	

	No test information available for this product. Likely to be highly mobile in soil due to water solubility.
12.5	**Results of PBT and vPvB assessment** PBT/vPvB assessment is not available for this product as chemical safety assessment is not required/not conducted.
12.6	**Other adverse effects** No data available.

SECTION 13 – Disposal considerations

13.1	**Waste treatment methods** Use a licensed waste disposal service to dispose of this material and any container washings. Wash out containers with water before reuse, recycling or disposal of container.

SECTION 14 - Transport information

14.1	**UN Number**	1987
14.2	**UN proper shipping name**	Alcohols, N.O.S. (Isopropanol, Ethanol)
14.3	**Transport hazard class(es)**	3
14.4	**Packing group**	II
14.5	**Environmental hazards**	Not applicable.
14.6	**Special precautions for user**	Warning: Flammable liquids.

SECTION 15 - Regulatory information

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture** UK legislation: The Management of Health and Safety at work Regulations 1999 [SI 1999 No. 3242] (regulation 3) requires suitable and sufficient assessment of risks in the workplace. Assessment should include arrangements to so far as reasonably practical ensure the safe use, handling, storage and transport of this product. Waste product and packaging should be disposed of in accordance with the Environmental Protection Act 1990 [1990 Chapter 43].
15.2	**Chemical Safety Assessment** No chemical safety assessment has been carried out for this product.

SECTION 16 - Other information

Full text of H-Statements referred to under sections 2:

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H371	May cause damage to organs.

Full text of R-phrases referred to under sections 2:

R11	Highly flammable.
R36	Irritating to eyes.
R40	Limited evidence of a carcinogenic effect.
R67	Vapours may cause drowsiness and dizziness.

The information in this Safety Data Sheet should be provided to all who will use, handle, store, transport or otherwise be exposed to this product. This information is believed to be reliable and updated at Revision Date, and represents the best information currently available and known by Source BioScience. However, Source BioScience makes no guarantee or warranty, express or implied, with respect to such information and we assume no liability resulting from its use. The information related herein is based on proper handling and anticipated uses and is for the material without chemical additions or alterations. Users should make their own investigations to determine the suitability of the information for their particular purposes.