

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




Version number: 2.0

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: CytoRich™ Red Preservative Product Codes: SPNG-0117-3600; 491336
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 Specific Target Organ Toxicity Single Exposure (Category 2), H371 Classification according to EU Directive 1999/45/EC: T – Toxic, R39/23/24/25 X _n – Harmful, R20/21/22; R40 X _i – Irritant, R36 X _i – Sensitising, R43 F – Flammable, R10 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: <div style="display: flex; justify-content: space-around; align-items: center;">    </div> Signal word: Danger						
	<table border="0"> <tr> <td style="vertical-align: top;">Hazard statements:</td> <td style="vertical-align: top;">H226 H370 H336 H319</td> <td style="vertical-align: top;">Flammable liquid and vapour. Causes damage to organs. May cause drowsiness or dizziness. Causes serious eye irritation.</td> </tr> <tr> <td style="vertical-align: top;">Precautionary statements:</td> <td style="vertical-align: top;">P210 P403+P233 P260 P280 P301+P312 +P330</td> <td style="vertical-align: top;">Keep away from heat/sparks/open flames/hot surfaces - No smoking. Store in a well ventilated place. Keep container tightly closed. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.</td> </tr> </table>	Hazard statements:	H226 H370 H336 H319	Flammable liquid and vapour. Causes damage to organs. May cause drowsiness or dizziness. Causes serious eye irritation.	Precautionary statements:	P210 P403+P233 P260 P280 P301+P312 +P330	Keep away from heat/sparks/open flames/hot surfaces - No smoking. Store in a well ventilated place. Keep container tightly closed. Do not breathe dust/ fume/ gas/ mist/ vapours/ spray. Wear protective gloves/protective clothing/eye protection/face protection. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
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	P305+P351 +P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P314	Get medical advice/attention if you feel unwell.
	P501	Dispose of contents/container has 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	23.3
	Methanol	67-56-1	01-2119392409-28-XXXX	10
	Ethylene glycol	107-21-1	01-2119456816-28-XXXX	6.7

SECTION 4 - First aid measures

4.1	Description of first aid measures General notes: After skin contact: After eye contact: After ingestion: After inhalation:	Consult a physician. Show this safety data sheet to the doctor in attendance. Wash off with soap and plenty of water and SEEK MEDICAL ADVICE. Rinse with water for at least 15 minutes and then SEEK MEDICAL ADVICE. Do NOT induce vomiting. Wash mouth thoroughly with water and SEEK MEDICAL ADVICE. 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: Unsuitable extinguishing media:	Use water spray, alcohol resistant foam, dry chemical or carbon dioxide. 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 Methanol – LTEL 200ppm / 266mg.m ⁻³ ; STEL 250ppm / 333mg.m ⁻³ ; Sk Ethylene glycol (vapour) – LTEL 20ppm / 52mg.m ⁻³ ; STEL 40ppm / 104mg.m ⁻³ ; Sk	
8.2	Exposure controls Appropriate engineering controls: Personal protective equipment: Environmental exposure controls:	Control inhalation risk with local exhaust ventilation (LEV) appropriate for the volume being handled. 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. Refer to sections 6 and 13.

SECTION 9 - Physical and chemical properties

9.1	Information on basic physical and chemical properties	
	a) Appearance	Clear, red liquid
	b) Odour	Mild alcohol
	c) Odour threshold	No data available
	d) pH	7.5
	e) Melting point/freezing point	No data available
	f) Initial boiling point and boiling range	82°C
	g) Flash point	25°C
	h) Evaporation rate	No data available
	i) Flammability	Flammable
	j) Upper/lower flammability or explosive limits	LEL – 2%; UEL – 44%
	k) Vapour pressure	No data available
	l) Vapour density	No data available
	m) Relative density	0.93 g.cm ⁻³
	n) Solubility(ies)	Miscible with water
	o) Partition coefficient (n-octanol/water)	No data available
	p) Auto-ignition temperature	410°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	
	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:	Category 2	
	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 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.	

Carcinogenicity:	(Mutagenic effects in animals have been recorded). 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.
For Ethylene glycol: Acute Toxicity:	LD ₅₀ Oral - rat – 4700mg/kg LD ₅₀ Dermal - rabbit – 10626mg/kg Category 4 - Oral
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:	No data available.
Germ cell mutagenicity:	No data available.
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. Teratogenic effects have been seen in animals.
STOT – single exposure:	No data available.
STOT – repeated exposure:	Category 2 – Oral Target organs - kidney
Aspiration hazard:	No data available.

SECTION 12 - Ecological information

12.1	Toxicity No test information available for this product.
	<p>For Isopropanol:</p> <p>Toxicity to fish mortality: LC₅₀ – Pimephales promelas (Fathead Minnow) – 96 h – 9640mg/l</p> <p>Toxicity to daphnia and other aquatic invertebrates: Immobilisation EC₅₀ – Daphnia magna (Water Flea) – 24h – >2000mg/l EC₅₀ – Daphnia magna (Water Flea) – 24h – 5102mg/l</p> <p>Toxicity to algae: EC₅₀ – Chlorella vulgaris (Fresh Water Algae) – 72 h – >1000mg/l</p> <p>Toxicity to microorganisms: EC₅₀ – Chlorella vulgaris (Fresh Water Algae) – 96 h – >1000mg/l EC₅₀ – Photobacterium phosphoreum – 5 min – 35390mg/l</p>
	<p>For Methanol:</p> <p>Toxicity to fish mortality: LC₅₀ – Pimephales promelas (Fathead minnow) – 96 h – >10000mg/l</p> <p>Toxicity to daphnia and other aquatic invertebrates: EC₅₀ – Daphnia magna (Water flea) – 24h – >10000mg/l</p> <p>Toxicity to algae: No data available</p> <p>Toxicity to microorganisms: EC₅₀ – Photobacterium phosphoreum – 25 min – 39000mg/l EC₅₀ – Photobacterium phosphoreum – 15 min – 40000mg/l EC₅₀ – Photobacterium phosphoreum – 5 min – 43000mg/l</p>
	<p>For Ethylene glycol:</p> <p>Toxicity to fish mortality: LC₅₀ – Oncorhynchus mykiss (Rainbow Trout) – 96 h – 18500mg/l LC₅₀ – Leuciscus idus (Golden Orfe) – 48 h – >10000mg/l NOEC – Pimephales promelas (Fathead Minnow) – 7 d – 32,000 mg/l - NOEC – Pimephales promelas (Fathead Minnow) – 96 h – 39,140 mg/l</p> <p>Toxicity to daphnia and other aquatic invertebrates: EC₅₀ – Daphnia magna (Water Flea) – 74,000 mg/l – 24 h NOEC – Daphnia (Water Flea) – 48 h – 24,000 mg/l LC₅₀ – Daphnia magna (Water Flea) – 48 h – 41,000 mg/l</p> <p>Toxicity to algae: Not data available.</p> <p>Toxicity to microorganisms: Not data available.</p>
12.2	Persistence and Degradability No data available.

12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	No data available.
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.
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SECTION 14 - Transport information

14.1	UN Number	1987
14.2	UN proper shipping name	Alcohols, N.O.S. (Isopropanol, Methanol)
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:	
H226	Flammable liquid and vapour.
H336	May cause drowsiness or dizziness
H370	Causes damage to organs.
H319	Causes serious eye irritation.
Full text of R-phrases referred to under sections 2:	
R10	Flammable.
R39/20/21/22	Toxic: Danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R36	Irritating to eyes.
R40	Limited evidence of a carcinogenic effect.
R43	May cause sensitisation by skin contact.
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.	