

## SAFETY DATA SHEET

Conforms to EU Directive 91/155/EEC, as amended by 2001/58/EC - Europe  
English

### 1. Identification of the substance/preparation and company/undertaking

**Product name** SOURCE 5RPC, 2 ml

**Catalogue Number** 90-1004-27



9 0 9 0 1 0 0 4 2 7

**Hazard symbol or symbols**



Highly flammable, Irritant

**Product type** Liquid.

#### Company/undertaking identification

**Supplier** GE Healthcare Bio-Sciences AB  
SE-751 84 Uppsala  
Sweden  
+46 (0)18 612 0000

**Emergency telephone number**  
Swedish Poisons Information Centre :  
+46 (0)8 331 231

**Person who prepared the MSDS :** msdslifesciences@ge.com

**Europe** GE Healthcare Bio-Sciences GmbH  
Munzinger Strasse 5  
D-79111 Freiburg  
Germany / Deutschland

+49 0761 4543 0

### 2. Hazards identification

The preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** F; R11  
Xi; R36  
R66, R67

**Physical/chemical hazards** Highly flammable.

**Human health hazards** Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

See section 11 for more detailed information on health effects and symptoms.

### 3. Composition/information on ingredients

**Substance/preparation** Preparation

<u>Ingredient name</u>	<u>CAS number</u>	<u>%</u>	<u>EC number</u>	<u>Classification</u>
Acetone	67-64-1	100	200-662-2	F; R11 Xi; R36 R66, R67
SOURCE (Polystyrene/divinyl benzene beads)	9003-70-7	-	SEQ513265	Not classified.

See section 16 for the full text of the R-phrases declared above

Occupational exposure limits, if available, are listed in section 8.



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## 4. First-aid measures

### First-aid measures

<b>Inhalation</b>	Move exposed person to fresh air. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Ingestion</b>	Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
<b>Skin contact</b>	Wash skin thoroughly with soap and water or use recognised skin cleanser. Remove contaminated clothing and shoes. Obtain medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
<b>Protection of first-aiders</b>	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

See section 11 for more detailed information on health effects and symptoms.

## 5. Fire-fighting measures

### Extinguishing media

<b>Suitable</b>	Use dry chemical, CO <sub>2</sub> , water spray (fog) or foam.
<b>Not suitable</b>	Do not use water jet.
<b>Special exposure hazards</b>	Highly flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
<b>Hazardous thermal decomposition products</b>	Decomposition products may include the following materials: carbon oxides
<b>Special protective equipment for fire-fighters</b>	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

<b>Personal precautions</b>	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
<b>Environmental precautions</b>	Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
<b>Large spill</b>	Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.
<b>Small spill</b>	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

## 7. Handling and storage

<b>Handling</b>	Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe vapour or mist. Do not ingest. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
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<b>Storage</b>	Store between the following temperatures: 4 to 30°C (39.2 to 86°F). Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination.
<b>Packaging materials</b>	
<b>Recommended</b>	Use original container.

## 8. Exposure controls/personal protection

### Ingredient name

### Occupational exposure limits

#### Europe

Acetone

#### EU OEL (Europe, 2/2006). Notes: Indicative

8 hours: 1210 mg/m<sup>3</sup> 8 hour(s).

8 hours: 500 ppm 8 hour(s).

### Exposure controls

<b>Occupational exposure controls</b>	Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
<b>Respiratory protection</b>	A respirator is not needed under normal and intended conditions of product use.
<b>Hand protection</b>	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
<b>Eye protection</b>	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.
<b>Skin protection</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Environmental exposure controls</b>	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## 9. Physical and chemical properties

### General information

#### Appearance

<b>Physical state</b>	Liquid. [Suspension]
<b>Colour</b>	solution : Colourless. / Suspension : White. [Light]
<b>Odour</b>	Characteristic.
<b>Odour threshold</b>	62 to 130 ppm

### Important health, safety and environmental information

<b>Flash point</b>	Closed cup: -18°C (-0.4°F)
<b>Explosive properties</b>	Not considered to be a product presenting a risk of explosion.
<b>Explosion limits</b>	Lower: 2% Upper: 13%
<b>Solubility</b>	Easily soluble in the following materials: cold water and hot water.

### Other information

<b>Auto-ignition temperature</b>	465°C (869°F)
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## 10. Stability and reactivity

<b>Stability</b>	The product is stable. Under normal conditions of storage and use, hazardous polymerisation will not occur.
<b>Materials to avoid</b>	Highly reactive or incompatible with the following materials: oxidizing materials
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.



## 11. Toxicological information

### Potential acute health effects

Inhalation	Vapours may cause drowsiness and dizziness.
Ingestion	No known significant effects or critical hazards.
Skin contact	Defatting to the skin. May cause skin dryness and irritation.
Eye contact	Irritating to eyes.

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Acetone	LD50 Intravenous	Rat	5500 mg/kg	-
	LD50 Oral	Rat	5800 mg/kg	-
	LDLo Intraperitoneal	Rat	500 mg/kg	-
	LDLo Dermal	Rabbit	20 mL/kg	-
	TDLo Oral	Rat	5 mL/kg	-
Conclusion/Summary	Not available.			

### Potential chronic health effects

Chronic effects	Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Reproductive toxicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	No known significant effects or critical hazards.

### Over-exposure signs/symptoms

Inhalation	Adverse symptoms may include the following: nausea or vomiting headache drowsiness/fatigue dizziness/vertigo
Ingestion	No specific data.
Skin	Adverse symptoms may include the following: irritation dryness cracking
Eyes	Adverse symptoms may include the following: irritation watering redness
Target organs	Contains material which causes damage to the following organs: kidneys, liver, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.
Other adverse effects	Adverse symptoms include the following: kidney abnormalities liver abnormalities

## 12. Ecological information

Environmental effects	No known significant effects or critical hazards.
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### Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Acetone	Intoxication	Acute EC50 13500 mg/L	Daphnia	48 hours
	Behavior	Acute EC50 8990 mg/L	Fish	48 hours
	Intoxication	Acute EC50 23.5 mg/L	Daphnia	48 hours
	Mortality	Acute LC50 >100 mg/L	Fish	96 hours
	Mortality	Acute LC50 >100 mg/L	Daphnia	96 hours
	Mortality	Acute LC50 5540 mg/L	Fish	96 hours
Conclusion/Summary	Not available.			

### Other ecological information

#### Biodegradability

Conclusion/Summary	Not available.		
Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Acetone	-	-	Readily

#### Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Acetone	-0.27	<10	low




Other adverse effects	No known significant effects or critical hazards.
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13. Disposal considerations

Methods of disposal	The generation of waste should be avoided or minimised wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Hazardous waste	The classification of the product may meet the criteria for a hazardous waste.


14. Transport information

International transport regulations						
Regulatory information	UN number	Proper shipping name	Class	Packing group	Label	Additional information
ADR/RID Class	UN1090	Acetone	3	II		-
IMDG Class	UN1090	Acetone	3	II		-
IATA-DGR Class	UN1090	Acetone	3	II		-

15. Regulatory information

EU regulations	
Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.	
Hazard symbol or symbols	 Highly flammable, Irritant
Risk phrases	R11- Highly flammable. R36- Irritating to eyes. R66- Repeated exposure may cause skin dryness or cracking. R67- Vapours may cause drowsiness and dizziness.
Safety phrases	S7- Keep container tightly closed. S16- Keep away from sources of ignition - No smoking. S24/25- Avoid contact with skin and eyes. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Product use	Industrial applications.
Europe inventory	Europe inventory: All components are listed or exempted.
Other EU regulations	TA-Luft Number 5.2.5: 100%

16. Other information

Full text of R-phrases referred to in sections 2 and 3 - Europe	R11- Highly flammable. R36- Irritating to eyes. R66- Repeated exposure may cause skin dryness or cracking. R67- Vapours may cause drowsiness and dizziness.		
Full text of classifications referred to in sections 2 and 3 - Europe	F - Highly flammable Xi - Irritant		
	Indicates information that has changed from previously issued version.		
<u>History</u>			
Date of printing	11 February 2008	Date of previous issue	No previous validation
Date of issue	11 February 2008	Version	1



**Notice to reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

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