

## MATERIAL SAFETY DATA SHEET According to EC Directive 91/155 EC Date: 01/08/10

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

#### 1.1 Product Details:

Trade Name: PCRBIO 1-Step RT-PCR Kit

Catalogue Number: PB10.52

#### Kit Components:

2x PCRBIO 1-Step RT-PCR mix  
20x RTase

#### 1.2 Company Details

##### Manufacturer/ Supplier:

PCR Biosystems Ltd  
London Bioscience Innovation Centre  
2 Royal College Street  
London  
NW1 0NH  
United Kingdom  
Telephone +44 (0) 207 691 3563  
Email info@pcrbio.com

##### Further Information Obtainable from:

Technical Services  
Details as above

#### 1.3 Emergency Details

##### 24-hour contact in case of emergency:

PCR Biosystems Ltd  
London Bioscience Innovation Centre  
2 Royal College Street  
London  
NW1 0NH  
United Kingdom  
Telephone +44 (0) 207 691 3563

## 2. Composition/ Information on Ingredients

### 2.1 Chemical Characterisation

Description: Mixture of substances listed below with non-hazardous additions.

#### Dangerous Components:

In 2x PCR BIO 1-Step RT-PCR mix:

##### Sulfolane

- CAS: 126-33-0
- EC Number (EINECS): 204-783-1
- Percentage: <15%

##### KCl

- CAS: 7447-40-7
- EC Number (EINECS): 231-211-8
- Percentage: <1%

##### NH<sub>4</sub>

- CAS: 7783-20-2
- EC Number (EINECS): 231-984-1
- Percentage: <1%

##### Glycerol

- CAS: 56-81-5
- EC Number (EINECS): 200-289-5
- Percentage: <1%

In 20x RTase:

##### Dithiothreitol (DTT)

- CAS: 3483-12-3
- EC Number (EINECS): 222-468-7
- Percentage: <1%

##### Glycerol

- CAS: 56-81-5
- EC Number (EINECS): 200-289-5
- Percentage: <50%

## 3. Hazards Identification

### 3.1 Precautionary Statements

For 2x PCR BIO 1-Step RT-PCR mix:

R 36/37/38: Irritating to eyes, respiratory system and skin. Target Organs: Kidneys  
For RNase Inhibitor:

R 36/37/38: Irritating to eyes, respiratory system and skin. R 22: Harmful if swallowed

#### 4. First Aid Measures

##### 4.1 After Inhalation:

Remove affected individual to fresh air. If irritation persists, consult a physician immediately.

##### 4.2 After Swallowing:

Providing the affected individual is conscious, wash his/her mouth out with water. Consult a doctor immediately.

##### 4.3 After Contact with Eyes:

Immediately flush eyes with copious amounts of water for several minutes. Consult a doctor immediately.

##### 4.4 After Contact with Skin:

Immediately wash with soap and copious amounts of water.

#### 5. Fire Fighting Measures

##### 5.1 Suitable Extinguishing Media:

Water spray, CO<sub>2</sub> or dry chemical powder. Large fires should be confronted with water spray or alcohol resistant foam.

##### 5.2 Unusual Fire Hazard:

Emits toxic fumes when on fire.

##### 5.3 Fire Fighting Protective Measures:

Wear protective clothing to prevent contact with the skin and eyes.

Wear self-contained breathing equipment to prevent inhalation of explosive or combustion gases.

#### 6. Accidental Release Measures

##### 6.1 Personal Precautions:

Ensure adequate ventilation. Wear rubber gloves.

##### 6.2 Environmental Precautions:

Do not allow entrance to surface or ground water. Do not allow entrance to sewers.

##### 6.3 Clean-up Measures:

Use a liquid-binding material (e.g. sand, sawdust, diatomite etc.) to absorb the spillage and place in closed containers for disposal. Make sure the affected area is

ventilated well after clean-up procedures have taken place.

## 7. Handling and Storage

### 7.1 Handling:

No special measures required.

### 7.2 Storage: Store at -20°C.

No special storage requirements are necessary for this product.  
No special measures for fire and explosive protection are required.

## 8. Exposure Controls/ Personal Protection

### 8.1 Engineering Measures: None required, see section 7.

### 8.2 Ingredients with Limit Values:

CAS NUMBER	CHEMICAL NAME
56-81-5	Glycerol
126-33-0	Sulfolane

### 8.3 Personal Protection:

Respiratory Protection: None required.

Hand Protection: Gloves should be worn, either rubber or chemical resistant.

Eye Protection: Wearing safety goggles is advisable. Eye-wash stations should be easily assessable.

Skin Protection: Lab coats should be worn during handling. Safety deluge showers should be available.

Hygiene Practices: Avoid contact with skin and eyes. Do not place in mouth.

Do not eat, drink or smoke when handling this product. Dispose of protective gloves safely and wash hands thoroughly with soap and water after using this product.

## 9. Physical and Chemical Properties

### 9.1 Physical Properties

2x PCR BIO 1-Step RT-PCR mix: Liquid, pink, odourless

All other components : Liquid, colourless, odourless

### 9.2 Chemical Properties

All components:

Melting point/Melting range : Undetermined Boiling point/Boiling range: Undetermined

Flash Point: Not Applicable



Autoflammability: Products are not self-igniting  
Ignition Temperature: Undetermined  
Explosive Properties: None Relative Density: Undetermined Solubility in Water: Fully Soluble

## 10. Stability and Reactivity

### 10.1 Stability

Product is stable under normal handling and storage conditions. Avoid excess heat, flame and pressure.

Thermal decomposition: None if used under ordinary conditions.

### 10.2 Reactivity

Dangerous Reactions: Avoid contact with strong oxidising agents, acids and alkali.

Hazardous Decomposition Products: None that are known.

## 11. Toxicological Information

### 11.1 Primary Irritant Effect:

R36/37/38: Irritating to eyes, respiratory system and skin.

### 11.2 Sensitisation Effects:

Via prolonged exposure, a sensitising effect through inhalation is possible. Via prolonged exposure, a sensitising effect on the skin is possible.

### 11.3 Further Toxicological Information

This product has no known carcinogenic properties.

This product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations, as issued in the latest version.

## 12. Ecological Information

12.1 Environmental Effects Environmental Fate/Stability: Unknown Effects on Plants or Animals: Unknown

### 12.2 Water Hazard

This product is slightly hazardous for water.

Do not allow product to come into contact with surface or ground water, and do not allow it to reach the sewage system.

## 13. Disposal Considerations

### 13.1 Product Disposal:

This product must not be disposed of with household waste or in any other manner that may lead to it entering the sewage system.

### 13.2 Packaging Disposal:

Unclean packaging should be disposed of according to official regulations.

## 14. Transport Information

### 14.1 Land Transport:

Product does not belong to a hazard class of any international agreements on the transport and packaging of dangerous goods.

### 14.2 Maritime Transport:

This product is not a marine pollutant.

### 14.3 Air Transport

Product does not belong to any hazard classification.

## 15. Regulatory Information

### 15.1 Labelling According to EU Guidelines

This product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials.

General safety regulations should always be observed when handling chemicals.

## 16. Other Information

The information provided in this Material Safety Data Sheet (MSDS) is accurate to the best of our present knowledge. However, this shall not constitute a guarantee for any specific product features. All substances and preparations may present unknown hazards and should be used with caution. PCR Biosystems shall not be held liable for any damage resulting from the handling of or from contact with the above product. The information supplied in this MSDS shall not establish a legally valid contractual relationship.