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 Names: PCRBIO Rapid Extract PCR Kit

Catalogue Numbers: PB10.24-08
PB10.24-40

Kit Components: 5x Rapid Extract Buffer A
10x Rapid Extract Buffer B
2x PCRBIO HS Taq Mix Red
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 Hazards identification

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Buffer B</td>
<td>IRRITANT</td>
<td>DANGER</td>
</tr>
<tr>
<td></td>
<td>R36/37/38 R42</td>
<td>H315 – Skin Irrit. 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H319 – Eye Irrit. 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H334 – Resp. Sens. 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>H335 – STOT SE 3</td>
</tr>
</tbody>
</table>

2x PCRBIOS HS Taq Mix Red

Does not need labelling as hazardous

According to Regulation (EC) No1272/2008
Skin Irritant (Category 2)
Eye Irritant (Category 2)
Respiratory Sensitivity (Category 1)
Specific Target Organ Toxicity (Single exposure) [Respiratory tract irritation] (Category 3)

Xi – Irritant

### Label elements

**Pictogram**

![Pictogram](image)

**Signal word**

- Warning
- Danger

**Hazard statement(s)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H315</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation.</td>
</tr>
<tr>
<td>H334</td>
<td>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation.</td>
</tr>
</tbody>
</table>

**Precautionary statement(s)**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>P261S</td>
<td>Avoid breathing dust</td>
</tr>
<tr>
<td>P280sh</td>
<td>Wear protective gloves/eye protection</td>
</tr>
<tr>
<td>P302+352</td>
<td>IF ON SKIN: Wash with plenty of soap and water</td>
</tr>
<tr>
<td>P305+351+338</td>
<td>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact</td>
</tr>
</tbody>
</table>

lenses, if present and easy to do. Continue rinsing.

**Hazard symbol(s)**

- Xi - Sensitising

**R-phrase(s)**

- R36/37/38 - Irritating to eyes, respiratory system and skin.
- R42 - May cause sensitisation by inhalation.
Wear suitable protective clothing and gloves

3 Composition/information on ingredients
- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.
- Dangerous components:
  - Glycerol
  - CAS: 56-81-5
  - EINECS: 200-289-5
  - Proteinase K
  - EC-No 254-457-8, 5-10%, Classification H315;H319;H334;H335

4 First aid measures
- Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: Generally the product does not irritate the skin.
- After eye contact: Rinse opened eye for several minutes under running water.
- After swallowing: Induce vomiting and call for medical help.
- Information for doctor
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Firefighting measures
- Extinguishing media
  - Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
  - Protective equipment: No special measures required.

6 Accidental release measures
- Personal precautions, protective equipment and emergency procedures: Not required.
- Environmental precautions:
  - Dilute with plenty of water.
  - Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
  - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  - Dispose contaminated material as waste according to item 13.
- Reference to other sections
No dangerous substances are released.
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage
- Handling
  · Precautions for safe handling: No special measures required.
  · Information about protection against explosions and fires: No special measures required.
- Conditions for safe storage, including any incompatibilities
- Storage
  · Requirements to be met by storerooms and receptacles: According to product specification
  · Information about storage in one common storage facility: Not required.
  · Further information about storage conditions: None.
  · Specific end use(s): No further relevant information available.

*8 Exposure controls/personal protection
- Additional information about design of technical systems: No further data; see item 7.
  · Control parameters
  · Components with limit values that require monitoring at the workplace:
    56-81-5 glycerol
    WEL () Long-term value: 10 mg/m³
    · Additional information: The lists that were valid during the creation were used as basis.
  · Exposure controls
  · Personal protective equipment
  · General protective and hygienic measures
    The usual precautionary measures should be adhered to when handling chemicals.
    · Breathing equipment: Not required.
    · Protection of hands: Protective gloves.
    · Material of gloves: Synthetic gloves
    · Penetration time of glove material
    The exact break through time has to be found out by the manufacturer of the protective
gloves and has to be observed.
  · Eye protection: Safety glasses

9 Physical and chemical properties
- Information on basic physical and chemical properties
  · General Information
  · Appearance:
    Form: Fluid
    Colour: Colourless
  · Odour: Odourless
  · Odour threshold: Not determined.
  · pH-value: Not determined.
  · Change in condition
    Melting point/Melting range: undetermined
    Boiling point/Boiling range: 100°C
    · Flash point: > 55°C
    · Flammability (solid, gaseous): Not applicable.
    · Ignition temperature: 270°C
    · Decomposition temperature: Not determined.
· **Self igniting**: Product is not selfigniting.
· **Danger of explosion**: Product does not present an explosion hazard.
· **Explosion limits**:  
  **Lower**: 1.8 Vol %  
  **Upper**: 63.0 Vol %  
· **Vapour pressure at 20°C**: 23 hPa  
· **Density**: Not determined  
· **Relative density**: Not determined.  
· **Vapour density**: Not determined.  
· **Evaporation rate**: Not determined.  
· **Solubility in / Miscibility with**  
  **Water**: Fully miscible  
· **Segregation coefficient (n-octanol/water)**: Not determined.  
· **Viscosity**:  
  **Dynamic**: Not determined.  
  **Kinematic**: Not determined.  
· **Solvent content**:  
  **Organic solvents**: 12.0 %  
  **Water**: 71.3 %  
· **Solids content**: 16.7 %  
· **Other information**: No further relevant information available.

**10 Stability and reactivity**
· **Reactivity**
· **Chemical stability**  
  **Thermal decomposition / conditions to be avoided**: No decomposition if used according to specifications.  
  **Possibility of hazardous reactions**: No dangerous reactions known  
  **Conditions to avoid**: No further relevant information available.  
  **Incompatible materials**: No further relevant information available.  
  **Hazardous decomposition products**: No dangerous decomposition products known

**11 Toxicological information**
· **Information on toxicological effects**
· **Acute toxicity**:  
  **LD/LC50 values that are relevant for classification**:  
  **67-68-5 dimethyl sulfoxide**  
  Oral LD50 14500 mg/kg (rat)  
· **Primary irritant effect**:  
  **on the skin**: No irritant effect.  
  **on the eye**: No irritating effect.  
· **Sensitization**: No sensitizing effects known.  
· **Additional toxicological information**:  
  The 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: When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

**12 Ecological information**
· **Toxicity**  
  **Acquatic toxicity**: No further relevant information available.  
· **Persistence and degradability**: No further relevant information available.
- Behaviour in environmental systems: No further relevant information available.
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
- Additional ecological information:
  - General notes:
    Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
    - Results of PBT and vPvB assessment
      - PBT: Not applicable.
      - vPvB: Not applicable.
    - Other adverse effects: No further relevant information available.

13 Disposal considerations
- Waste treatment methods
- Recommendation
  Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.
  - Recommended cleansing agent: Water, if necessary with cleansing agents.

14 Transport information
- Maritime transport IMDG:
  - Marine pollutant: No
  - Special precautions for user: Not applicable.
  - Transport/Additional information: Not dangerous according to the above specifications.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.

15 Regulatory information
- Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations
- Technical instructions (air):
  - Class Share in %
    NK 10-20
  - Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
  - Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.