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:

- dNTP 10mM each (40mM total)
- dNTP 10mM each (40mM total)
- dNTP 25mM each (100mM total)
- dNTP 25mM each (100mM total)
- dNTP Set 4x0.25mL (100mM each)

Catalogue Numbers:

- PB10.71-05
- PB10.71-10
- PB10.72-05
- PB10.72-10
- PB10.73-02

Kit Components:

- dNTP 10mM each (40mM total)
- dNTP 10mM each (40mM total)
- dNTP 25mM each (100mM total)
- dNTP 25mM each (100mM total)
- dNTP Set 4x0.25mL (100mM each)

1.2 Company Details

Manufacturer/Supplier:

PCR Biosystems Ltd.
1st Floor
Aztec House
397-405 Archway Road
London, N6 4ER
United Kingdom
Further information obtainable from:

Technical Services
Details as above

1.3 Emergency Details

24-hour contact in case of emergency:

PCR Biosystems Ltd.
1st Floor
Aztec House
397-405 Archway Road
London, N6 4ER
United Kingdom
Telephone: +44 (0) 203 930 8101

2. Hazards identification

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008: The product is not classified according to the CLP regulation.
- Classification according to Directive 67/548/EEC or Directive 1999/45/EC: Void
- Information concerning particular hazards for human and environment: The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- Classification system:
The classification was made according to the latest editions of the EU-lists, and expanded upon from company and literature data.
- Label elements
- Labelling according to EU guidelines:
  Observe the general safety regulations when handling chemicals
  The product is not subject to identification regulations under EU Directives and the Ordinance on Hazardous Materials (GefStoffV).
- Safety phrases:
  35 This material and its container must be disposed of in a safe way.
- Other hazards
- Results of PBT and vPvB assessment
  PBT: Not applicable.
  vPvB: Not applicable.

3. Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of the substances listed below with nonhazardous additions.
- Dangerous components:
  CAS: 67-68-5
  EINECS: 200-664-3
  dimethyl sulfoxide 5-10%
CAS: 56-81-5  
EINECS: 200-289-5  
glycerol 1.0-2.5%  
Eye Irrit. 2, H319  
1.0-2.5%  
· Additional information For the wording of the listed risk phrases refer to section 16.

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
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:
  Proprietary Reagent RF I
  WEL (Short-term value: 20 mg/m³)
  Long-term value: 10 mg/m³
  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 breakthrough 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:
  • Bioaccumulative potential: No further relevant information available.
  • Mobility in soil: No further relevant information available.
  • Additional ecological information:
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.