

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:

Catalogue Number	Trade Name
PB20.11-01	qPCR BIO SyGreen Lo-ROX
PB20.11-05	qPCR BIO SyGreen Lo-ROX
PB20.11-20	qPCR BIO SyGreen Lo-ROX
PB20.11-50	qPCR BIO SyGreen Lo-ROX 50mL
PB20.12-01	qPCR BIO SyGreen Hi-ROX
PB20.12-05	qPCR BIO SyGreen Hi-ROX
PB20.12-20	qPCR BIO SyGreen Hi-ROX
PB20.12-50	qPCR BIO SyGreen Hi-ROX 50ml
PB20.13-01	qPCR BIO SyGreen Fluorescein
PB20.13-05	qPCR BIO SyGreen Fluorescein
PB20.13-20	""
PB20.14-01	qPCR BIO SyGreen Mix Separate-ROX
PB20.14-05	qPCR BIO SyGreen Mix Separate-ROX
PB20.14-20	qPCR BIO SyGreen Mix Separate-ROX
PB20.14-50	qPCR BIO SyGreen Mix Separate-ROX
PB20.15-01	qPCR BIO SyGreen Blue Lo-ROX
PB20.15-05	qPCR BIO SyGreen Blue Lo-ROX
PB20.15-20	qPCR BIO SyGreen Blue Lo-ROX
PB20.15-50	qPCR BIO SyGreen Blue Lo-ROX
PB20.16-01	qPCR BIO SyGreen Blue Hi-ROX
PB20.16-05	qPCR BIO SyGreen Blue Hi-ROX
PB20.16-20	qPCR BIO SyGreen Blue Hi-ROX
PB20.16-50	qPCR BIO SyGreen Blue Hi-ROX
PB20.17-01	qPCR BIO SyGreen Blue Separate ROX
PB20.17-05	qPCR BIO SyGreen Blue Separate ROX
PB20.17-20	qPCR BIO SyGreen Blue Separate ROX
PB20.17-50	qPCR BIO SyGreen Blue Separate ROX
PB20.21-01	qPCR BIO Probe Lo-ROX

PB20.21-05	qPCR BIO Probe Lo-ROX
PB20.21-20	""
PB20.21-50	qPCR BIO Probe Lo-ROX
PB20.22-01	qPCR BIO Probe Hi-ROX
PB20.22-05	qPCR BIO Probe Hi-ROX
PB20.22-20	""
PB20.23-01	qPCR BIO Probe No-ROX
PB20.23-05	qPCR BIO Probe No-ROX
PB20.23-20	""
PB20.23-50	""
PB20.24-01	qPCR BIO Probe Mix Separate-ROX
PB20.24-05	qPCR BIO Probe Mix Separate-ROX
PB20.24-20	qPCR BIO Probe Mix Separate-ROX
PB20.24-50	qPCR BIO Probe Mix Separate-ROX
PB20.31-01	qPCR BIO HRM Mix
PB20.31-05	qPCR BIO HRM Mix
PB20.31-20	qPCR BIO HRM Mix
PB20.41-01	qPCR BIO Genotyping Mix Lo-ROX
PB20.41-05	qPCR BIO Genotyping Mix Lo-ROX
PB20.41-20	qPCR BIO Genotyping Mix Lo-ROX
PB20.42-01	qPCR BIO Genotyping Mix Hi-ROX
PB20.42-05	qPCR BIO Genotyping Mix Hi-ROX
PB20.42-20	qPCR BIO Genotyping Mix Hi-ROX
PB20.43-01	qPCR BIO Genotyping Mix No-ROX
PB20.43-05	qPCR BIO Genotyping Mix No-ROX
PB20.43-20	qPCR BIO Genotyping Mix No-ROX
PB20.51-01	20x dUTP/UDGase additive
PB25.11-01	qPCR SyGreen 1-Step Lo-ROX
PB25.11-03	qPCR SyGreen 1-Step Lo-ROX
PB25.11-12	""
PB25.11-50	qPCR SyGreen 1-Step Lo-ROX (5000rxns)
PB25.12-01	qPCR SyGreen 1-Step Hi-ROX
PB25.12-03	qPCR SyGreen 1-Step Hi-ROX
PB25.12-12	""
PB25.21-01	qPCR Probe 1-Step Lo-ROX
PB25.21-03	qPCR Probe 1-Step Lo-ROX
PB25.21-12	""
PB25.21-20	qPCR Probe 1-Step Lo-ROX (2000rxns)
PB25.22-01	qPCR Probe 1-Step Hi-ROX
PB25.22-03	qPCR Probe 1-Step Hi-ROX
PB25.22-12	""
PB25.23-01	qPCR Probe 1-Step No-ROX

PB25.23-03	qPCR Probe 1-Step No-ROX
PB25.23-12	""
PB25.31-01	qPCR SyGreen 1-Step Go Lo-ROX
PB25.31-03	qPCR SyGreen 1-Step Go Lo-ROX
PB25.31-12	""
PB25.32-01	qPCR SyGreen 1-Step Go Hi-ROX
PB25.32-03	qPCR SyGreen 1-Step Go Hi-ROX
PB25.32-12	""
PB25.41-01	qPCR Probe 1-Step Go Lo-ROX
PB25.41-03	qPCR Probe 1-Step Go Lo-ROX
PB25.41-12	""
PB25.42-01	qPCR Probe 1-Step Go Hi-ROX
PB25.42-03	qPCR Probe 1-Step Go Hi-ROX
PB25.42-12	""
PB25.43-01	qPCR Probe 1-Step Go No-ROX
PB25.43-03	qPCR Probe 1-Step Go No-ROX
PB25.43-12	""

Component names:

qPCRBIO SyGreen Mix Lo-ROX
qPCRBIO SyGreen Mix Lo-ROX 5000rxns
qPCRBIO SyGreen Mix Hi-ROX
qPCRBIO SyGreen Mix Hi-ROX 5000rxns
qPCRBIO SyGreen Mix Fluorescein
qPCRBIO Probe Mix Lo-ROX
qPCRBIO Probe Mix Lo-ROX 5000rxns
qPCRBIO Probe Mix Hi-ROX
UDGase (2u/ul) 500 units
20x RTase
qPCR SyGreen One-Step Lo-ROX
qPCR SyGreen One-Step Lo-ROX
qPCR SyGreen One-Step Hi-ROX
qPCR Probe One-Step Lo-ROX
qPCR Probe One-Step Lo-ROX
qPCR Probe One-Step Hi-ROX
qPCR Probe One-Step No-ROX
qPCR Probe No-ROX
qPCR Probe No-ROX
qPCRBIO HRM Mix
qPCRBIO Genotyping Mix No-ROX
qPCRBIO Genotyping Mix Lo-ROX
qPCRBIO Genotyping Mix Hi-ROX

qPCR BIO SyGreen Mix No-ROX (100rxns)
qPCR BIO SyGreen Mix No-ROX (5000rxns)
2x qPCR BIO SyGreen Blue Mix No-ROX
2x qPCR BIO SyGreen Blue Mix No-ROX
2x qPCR BIO SyGreen Blue Mix Hi-ROX
2x qPCR BIO SyGreen Blue Mix Hi-ROX
2x qPCR BIO SyGreen Blue Mix Lo-ROX
2x qPCR BIO SyGreen Blue Mix Lo-ROX
20x RTase Go Probe
qPCR Probe 1-Step Go No-ROX
qPCR Probe 1-Step Go Lo-ROX
qPCR Probe 1-Step Go Hi-ROX

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

- **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
- **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:**

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 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:**
- **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.