



07/09/2015

### Kit Components

Product code	Description
<b>1662500</b> <b>1662500EDU</b>	<b>GMO Investigator™ Kit</b>

Components:

10000751	Certified Non-Genetically Modified Grain
10000752	GMO Primers
10000753	Plant PSII Primers
10000759	GMO Positive Control DNA
10000754	EDU-PCR MW Ruler
10000756	Orange G Loading Dye
7326030	InstaGene™ Matrix
10007984	2x PCR Master Mix Bottled



Safety Data Sheet  
acc. to OSHA HCS

Printing date 07/09/2015

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acc. to OSHA HCS

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Trade name: Certified Non-Genetically Modified Grain

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- 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 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents  
CO<sub>2</sub>, 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 Wear protective clothing.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up: Pick up mechanically.
- 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: Not required.
- Additional information: The lists that were valid during the creation were used as basis.

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Organic solvents:	0.0 %
Solids content:	100.0 %
· Other information	No further relevant information available.

## 10 Stability and reactivity

- Reactivity No further relevant information available.
- 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:
- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritant effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
 

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.

The substance is not subject to classification according to the latest version of the EU lists.
- Carcinogenic categories
 

· IARC (International Agency for Research on Cancer)
Substance is not listed.

· NTP (National Toxicology Program)
Substance is not listed.

· OSHA-Ca (Occupational Safety & Health Administration)
Substance is not listed.
- Target organs: Not applicable.

## 12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.

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Trade name: Certified Non-Genetically Modified Grain

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- 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  
Smaller quantities can be disposed of with household waste.  
Hand over to hazardous waste disposers.  
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.

## 14 Transport information

· UN-Number	
· DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name	
· DOT, ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	Void
· Packing group	
· DOT, ADR, IMDG, IATA	Void
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	-

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Trade name: Certified Non-Genetically Modified Grain

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## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)

· Section 302/304 (40CFR355.30 / 40CFR355.40):

Substance not listed.

· Section 313 (40CFR372.65):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is not listed.

· Carcinogenic categories

· EPA (Environmental Protection Agency)

Substance is not listed.

· TLV (Threshold Limit Value established by ACGIH)

Substance is not listed.

· MAK (German Maximum Workplace Concentration)

Substance is not listed.

· NIOSH-Ca (National Institute for Occupational Safety and Health)

Substance is not listed.

· National regulations

· 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.

· Department issuing SDS: Environmental Health and Safety.

· Contact:

Life Science Ge-ouis nc7(c)7(v(c)-3(Heis)ralth and 10)se 0 0 1 0 0 cm 0 0 m 569.76 0 | S 1 0 0 1 0 16.38 cm 0 0 m 0 -16.44



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**1 Identification**

- Product identifier
- Trade name: GMO Primers
- Catalog or product number: 10000752
- Relevant identified uses of the substance or mixture and uses advised against  
No further relevant information available.
- Application of the substance / the mixture      Laboratory chemicals
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547
- Information department:  
Technical services, customer support  
lsg\_techserv\_us@bio-rad.com
- Emergency telephone number:  
1(800)424-9300 Use only in the event

(510)741-1000





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Trade name: GMO Primers

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**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 Fire-fighting measures**

- Extinguishing media
- Suitable extinguishing agents  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.



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Trade name: GMO Primers

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**8 Exposure controls/personal protection**

- Additional information about design of technical systems: No further data; see item 7.
- Control parameters
-



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Trade name: GMO Primers

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· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content: Organic solvents:	0.0 %
Water:	98.8 %
· Solids content:	0.3 %
· Other information	No further relevant information available.

## 10 Stability and reactivity

- Reactivity No further relevant information available.
- 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:
- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritant 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.
- Carcinogenic categories
 

· IARC (International Agency for Research on Cancer)
None of the ingredients is listed.
- NTP (National Toxicology Program)
 

None of the ingredients is listed.
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Trade name: GMO Primers

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- OSHA-Ca (Occupational Safety & Health Administration)

- None of the ingredients is listed.

- Target organs: Not applicable.

## 12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes: Generally not hazardous for water.
- 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  
Hand over to hazardous waste disposers.  
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

- UN-Number
-





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Trade name: GMO Primers

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Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

· Date of preparation / last revision 07/09/2015 / -

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· \* Data compared to the previous version altered.

US



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\*  
**1 Identification**

- Product identifier
- Trade name: Plant PSII Primers
- Catalog or product number: 10000753, 10040690, 10001729
- Relevant identified uses of the substance or mixture and uses advised against



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Trade name: Plant PSII Primers

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- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

### 3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description:  
7732-18-5 water
- Identification number(s):
- EC number: 231-791-2
- Description: Mixture of the substances listed below with non-hazardous additions.

· Listing of dangerous and non-hazardous components:

1934-21-0	trisodium 5-hydroxy-1-(4-sulphophenyl)-4-(4-sulphophenylazo)pyrazole-3-carboxylate	1.0-2.5%
7732-18-5	water	50-100%

· Additional information For the wording of the listed risk phrases refer to section 15.

### 4 First-aid measures

- Description of first aid measures
- After inhalation Supply fresh air; consult doctor in case of complaints.
- 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.
- No further relevant information available.
- 
-





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Trade name: Plant PSII Primers

See Section 13 for disposal information.

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## 7 Handling and storage

- Handling
- Precautions for safe handling No special precautions are necessary if used correctly.
- 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.



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Trade name: Plant PSII Primers

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Boiling point/Boiling range:	undetermined
· Flash point:	Not applicable
· Flammability (solid, gaseous)	Not applicable.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor 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
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Water:	98.7 %
Solids content:	1.4 %
· Other information	No further relevant information available.

## 10 Stability and reactivity

- Reactivity No further relevant information available.
- 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

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Trade name: Plant PSII Primers

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· Recommended cleansing agent: Water, if necessary with cleansing agents.

## 14 Transport information

· UN-Number · DOT, ADR, ADN, IMDG, IATA	Void
· UN proper shipping name · DOT, ADR, ADN, IMDG, IATA	Void
· Transport hazard class(es) · DOT, ADR, ADN, IMDG, IATA · Class	Void
· Packing group · DOT, ADR, IMDG, IATA	Void
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	-

## 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendants and Reauthorization Act of 1986 - USA)

· Section 302/304 (40CFR355.30 / 40CFR355.40):

None of the ingredients is listed.

· Section 313 (40CFR372.65):

None of the ingredients is listed.

· TSCA (Toxic Substances Control Act):



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**· MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

**· NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

**· National regulations****· Water hazard class:** Generally not 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.

**· Department issuing SDS:** Environmental Health and Safety.**· Contact:**

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

**· Date of preparation / last revision** 07/09/2015 / -**· Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

**· \* Data compared to the previous version altered.**



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## 1 Identification

- Product identifier
- Trade name: GMO Positive Control DNA
- Catalog or product number: 10000759
- Relevant identified uses of the substance or mixture and uses advised against  
No further relevant information available.
- Application of the substance / the mixture      Laboratory chemicals
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547  
(510)741-1000
- Information department:  
Technical services, customer support  
lsg\_techserv\_us@bio-rad.com
- Emergency telephone number:  
1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT.  
510-741-1000

## 2 Hazard(s) identification

- Classification of the substance or mixture  
The product is not classified according to



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Trade name: GMO Positive Control DNA

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**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:  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information:





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Trade name: GMO Positive Control DNA

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· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content: Organic solvents:	0.0 %
Water:	99.9 %
· Solids content:	0.1 %
· Other information	No further relevant information available.

## 10 Stability and reactivity

- Reactivity No further relevant information available.
- 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:
- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritant 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.

### · Carcinogenic categories

· IARC (International Agency for Research on Cancer)

None of the ingredients is listed.

· NTP (National Toxicology Program)

None of the ingredients is listed.

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Trade name: GMO Positive Control DNA

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· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Target organs: Not applicable.

## 12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes: Generally not hazardous for water.
- 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  
Hand over to hazardous waste disposers.  
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

- |                              |      |
|------------------------------|------|
| · UN-Number                  |      |
| · DOT, ADR, ADN, IMDG, IATA  | Void |
| · UN proper shipping name    |      |
| · DOT, ADR, ADN, IMDG, IATA  | Void |
| · Transport hazard class(es) |      |
| · DOT, ADR, ADN, IMDG, IATA  |      |
| · Class                      | Void |
| · Packing group              |      |
| · DOT, ADR, IMDG, IATA       | Void |
| · Environmental hazards:     |      |
| · Marine pollutant:          | No   |

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Trade name: GMO Positive Control DNA

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- |   |  |
|---|--|
| · Special precautions for user  | Not applicable.                                      |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable.                                      |
| · Transport/Additional information:                                       | Not dangerous according to the above specifications. |
| · UN "Model Regulation":  | -  |



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Printing date 07/09/2015

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## 1 Identification

- Product identifier
- Trade name: EDU-PCR MW Ruler
- Catalog or product number: 10000754
- Relevant identified uses of the substance or mixture and uses advised against  
No further relevant information available.
- Application of the substance / the mixture      Laboratory chemicals
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547
- Information department:  
Technical services, customer support  
lsg\_techserv\_us@bio-rad.com
- Emergency telephone number:  
1(800)424-9300 Use only in the event

(510)741-1000



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Trade name: EDU-PCR MW Ruler

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· Additional information For the wording of the listed risk phrases refer to section 15.

## 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 Fire-fighting 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 Wear protective clothing.
- 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).
- 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.

(Contd. on page 3)



Safety Data Sheet  
acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: EDU-PCR MW Ruler

· Specific end use(s) No further relevant information available. (Contd. of page 2)





# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: EDU-PCR MW Ruler

(Contd. of page 3)

· Vapor 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
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Water:	96.6 %
Solids content:	3.4 %
· Other information	No further relevant information available.

## 10 Stability and reactivity

- Reactivity No further relevant information available.
- 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:
- Primary irritant effect:
  - on the skin: No irritant effect.
  - on the eye: No irritant 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.
- Carcinogenic categories
- IARC (International Agency for Research on Cancer)
  - None of the ingredients is listed.

(Contd. on page 5)





Safety Data Sheet  
acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: EDU-PCR MW Ruler

(Contd. of page 4)

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

· Target organs: Not applicable.

**12 Ecological information**

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behavior 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.



Safety Data Sheet  
acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: EDU-PCR MW Ruler

(Contd. of page 5)

- 
- Packing group
  - DOT, ADR, IMDG, IATA
- Void
- 
- Environmental hazards:
  - Marine pollutant:
- No



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: EDU-PCR MW Ruler

(Contd. of page 6)

## · Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

## · Date of preparation / last revision 07/09/2015 / -

## · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

## · \* Data compared to the previous version altered.

US



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

## 1 Identification

- Product identifier
- Trade name: Orange G Loading Dye
- Catalog or product number: 10000756
- Relevant identified uses of the substance or mixture and uses advised against  
No further relevant information available.
- Application of the substance / the mixture      Laboratory chemicals
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547      (510)741-1000
- Information department:  
Technical services, customer support  
lsg\_techserv\_us@bio-rad.com
- Emergency telephone number:  
1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT.  
510-741-1000

## 2 Hazard(s) identification

- Classification of the substance or mixture  
The product is not classified according to the Globally Harmonized System (GHS).

---

- Label elements
- GHS label elements    Void
- Hazard pictograms    Void
- Signal word    Void
- Hazard statements    Void
- Additional information:    Contact with acids may cause release of toxic gases
- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

## 3 Composition/information on ingredients

- Description: Mixture of the substances list



Safety Data Sheet  
acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: Orange G Loading Dye

(Contd. of page 1)



Safety Data Sheet  
acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: Orange G Loading Dye



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: Orange G Loading Dye

(Contd. of page 3)

· Density:	Not determined
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content: Organic solvents:	30.0 %
Water:	69.5 %
· Solids content:	0.5 %
· Other information	No further relevant information available.

## 10 Stability and reactivity

- Reactivity No further relevant information available.
- 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:
- Primary irritant effect:
- on the skin: No irritant effect.
- on the eye: No irritant 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.
- Carcinogenic categories
- IARC (International Agency for Research on Cancer)

1936-15-8 disodium 7-hydroxy-8-phenylazonaphthalene-1,3-disulphonate

3

(Contd. on page 5)

US



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: Orange G Loading Dye

(Contd. of page 4)

- NTP (National Toxicology Program)

None of the ingredients is listed.

- OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

- Target organs: Not applicable.

## 12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behavior 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  
Hand over to hazardous waste disposers.  
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.





Safety Data Sheet  
acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: Orange G Loading Dye

(Contd. of page 5)

· Packing group · DOT, ADR, IMDG, IATA	Void
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	-

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: Orange G Loading Dye

(Contd. of page 6)

## 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.

· Department issuing SDS: Environmental Health and Safety.

· Contact:

Life Science Group, Environmental Health and Safety, 2000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 741-1000

Diagnostic Group, Environmental Health and Safety, 4000 Alfred Nobel Drive, Hercules, California, 94547: 1(510) 724-7000

· Date of preparation / last revision 07/09/2015 / -

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

· \* Data compared to the previous version altered.



Safety Data Sheet  
acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

\* 1 Identification

- Product identifier
- Trade name: InstaGene™ Matrix
- Catalog or product number: 7326030, 7326030EDU, 9703407, 7323030-022, 9704837
- Relevant identified uses of the substance or mixture and uses advised against  
No further relevant information available.
- Application of the substance / the mixture      Laboratory chemicals
- Details of the supplier of the safety data sheet



Safety Data Sheet  
acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: InstaGene™ Matrix

(Contd. of page 1)

- 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



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: InstaGene™ Matrix

(Contd. of page 2)

- Control parameters
- Components with limit values that require monitoring at the workplace:  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- 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 for handling chemicals should be followed.
- 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:	Suspension
Color:	White
Odor:	Odorless
Odour threshold:	Not determined.
- pH-value: Not determined.
- Change in condition
 

Melting point/Melting range:	undetermined
Boiling point/Boiling range:	undetermined
- Flash point: Not applicable
- Flammability (solid, gaseous) Not applicable.
- Ignition temperature:
 

Decomposition temperature:	Not determined.
----------------------------	-----------------
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
 

Lower:	Not determined.
Upper:	Not determined.
- Vapor pressure at 20 °C: 23 hPa
- Density: Not determined
- Relative density: Not determined.
- Vapour density: Not determined.
- Evaporation rate: Not determined.

(Contd. on page 4)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: InstaGene™ Matrix

(Contd. of page 3)

· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: dynamic: kinematic:	Not determined. Not determined.
· Solvent content: Organic solvents: Water:	0.0 % 94.0 %
· Solids content:	6.0 %
· Other information	No further relevant information available.



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: InstaGene™ Matrix

(Contd. of page 4)

· Target organs: Not applicable.

## 12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes: Generally not hazardous for water.
- 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  
Hand over to hazardous waste disposers.  
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.

## 14 Transport information

- |                                |      |
|--------------------------------|------|
| · UN-Number                    |      |
| · DOT, ADR, ADN, IMDG, IATA    | Void |
| · UN proper shipping name      |      |
| · DOT, ADR, ADN, IMDG, IATA    | Void |
| · Transport hazard class(es)   |      |
| · DOT, ADR, ADN, IMDG, IATA    |      |
| · Class                        | Void |
| · Packing group                |      |
| · DOT, ADR, IMDG, IATA         | Void |
| · Environmental hazards:       |      |
| · Marine pollutant:            | No   |
| · Special precautions for user |      |



Safety Data Sheet  
acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: InstaGene™ Matrix

(Contd. of page 5)

- |                                     |  |
|-------------------------------------|--|
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation":            | -  |

**15 Regulatory information**

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)





# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: InstaGene™ Matrix

(Contd. of page 6)

ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
· \* Data compared to the previous version altered.

US



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

## 1 Identification

- Product identifier
- Trade name: 2x PCR Master Mix Bottled
- Catalog or product number: 10007984, 1665009EDU, 1665009, 10009191
- Relevant identified uses of the substance or mixture and uses advised against  
No further relevant information available.
- Application of the substance / the mixture      Laboratory chemicals
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:  
Bio-Rad Laboratories, Life Science Group  
2000 Alfred Nobel Drive  
Hercules, California 94547
- Information department:  
Technical services, customer support  
lsg\_techserv\_us@bio-rad.com
- Emergency telephone number:  
1(800)424-9300 Use only in the event of a CHEMICAL EMERGENCY involving a SPILL, LEAK, FIRE, EXPLOSION or ACCIDENT.  
510-741-1000

(510)741-1000

## 2 Hazard(s) identification

- Classification of the substance or mixture  
The product is not classified according to the Globally Harmonized System (GHS).
- Label elements
- GHS label elements    Void
- Hazard pictograms    Void
- Signal word    Void
- Hazard statements    Void
- Additional information:    Contact with acids may cause release of toxic gases
- Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.

## 3 Composition/information on ingredients

- Chemical characterization: Substances
- CAS No. Description:  
7732-18-5 water
- Identification number(s):
- EC number: 231-791-2
- Description: Mixture of the substances listed below with non-hazardous additions.

· Listing of dangerous and non-hazardous components:	
7732-18-5	water
	50-100%

- Additional information    For the wording of the listed risk phrases refer to section 15.



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: 2x PCR Master Mix Bottled

(Contd. of page 1)

**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.
-





# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: 2x PCR Master Mix Bottled

(Contd. of page 3)

· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity: dynamic:	Not determined.
kinematic:	Not determined.
· Solvent content: Organic solvents:	0.0 %
Water:	99.8 %
· Solids content:	0.2 %
· Other information	No further relevant information available.

## 10 Stability and reactivity



# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: 2x PCR Master Mix Bottled

(Contd. of page 4)

- OSHA-Ca (Occupational Safety & Health Administration)

- None of the ingredients is listed.

- Target organs: Not applicable.

## 12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
- Persistence and degradability No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- Additional ecological information:
- General notes: Generally not hazardous for water.
- 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  
Hand over to hazardous waste disposers.  
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

- |  |      |
|--|------|
| <ul style="list-style-type: none"> <li>· UN-Number</li> <li>· DOT, ADR, ADN, IMDG, IATA</li> </ul>                                   | Void |
| <ul style="list-style-type: none"> <li>· UN proper shipping name</li> <li>· DOT, ADR, ADN, IMDG, IATA</li> </ul>                     | Void |
| <ul style="list-style-type: none"> <li>· Transport hazard class(es)</li> <li>· DOT, ADR, ADN, IMDG, IATA</li> <li>· Class</li> </ul> | Void |
| <ul style="list-style-type: none"> <li>· Packing group</li> <li>· DOT, ADR, IMDG, IATA</li> </ul>                                    | Void |
| <ul style="list-style-type: none"> <li>· Environmental hazards:</li> <li>· Marine pollutant:</li> </ul>                              | No   |

(Contd. on page 6)





# Safety Data Sheet

acc. to OSHA HCS

Printing date 07/09/2015

Reviewed on 07/07/2015

Trade name: 2x PCR Master Mix Bottled

(Contd. of page 6)

**Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
- \* Data compared to the previous version altered.

US