



06/03/2015

### Kit Components

| Product code                       | Description                           |
|------------------------------------|---------------------------------------|
| <b>96DS<br/>423-1000<br/>576DS</b> | <b>Autoimmune EIA Anti-dsDNA Test</b> |

Components:

|        |                                          |
|--------|------------------------------------------|
| 200DS  | dsDNA Calibrator, dsDNA Positive Control |
| 220HSP | Conjugate                                |
| 220NC  | Negative Control                         |
| 220SM  | Stop Solution                            |
| 220TM  | Substrate                                |
| 240DD  | DNA Diluent                              |
| 240DW  | DNA Wash Concentrate                     |

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

Printing date 06/03/2015

Reviewed on 06/02/2015

**1 Identification**

- **Product identifier**
- **Trade name:** dsDNA Calibrator, dsDNA Positive Control
- **Catalog or product number:** 200DS, 210DS, 423-1002, 423-1003
- **Application of the substance / the mixture** *In-vitro laboratory reagent or component*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*Bio-Rad Laboratories, Diagnostic Group  
4000 Alfred Nobel Drive  
Hercules, California 94547* 1(510)724-7000
- **Information department:**  
*Technical services, customer support  
TechsupportUSSD@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.*

**2 Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** *Mixture of the substances listed below with non-hazardous additions.*

· **Listing of dangerous and non-hazardous components:**

|           |                       |        |
|-----------|-----------------------|--------|
| 56-81-5   | glycerol              | 35-50% |
| 7732-18-5 | water                 | 20-35% |
|           | Human Source Material | 10-20% |
|           | Goat Serum            | 2.5-5% |

- **Additional information**  
*Contains human sourced and/or potentially infectious components.  
For the wording of the listed risk phrases refer to section 15.*

**3 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*
- **Classification system**
- **NFPA ratings (scale 0-4)**  
*Health = 1  
Fire = 0  
Reactivity = 0*

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: dsDNA Calibrator, dsDNA Positive Control

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## 4 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.

## 5 Fire-fighting measures

- **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.
- **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.
- **Methods and material for containment and cleaning up:**  
Disinfectant  
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.
- **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.

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**Trade name: dsDNA Calibrator, dsDNA Positive Control**

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**· Components with limit values that require monitoring at the workplace:**

**56-81-5 glycerol**

|                     |                                                                |
|---------------------|----------------------------------------------------------------|
| PEL (United States) | 15* 5** mg/m <sup>3</sup><br>*total dust **respirable fraction |
| TLV (United States) | 10* ppm<br>*Mist                                               |

**26628-22-8 sodium azide**

|                     |                                                                                                         |
|---------------------|---------------------------------------------------------------------------------------------------------|
| REL (United States) | Short-term value: C 0.3** mg/m <sup>3</sup> , C 0.1* ppm<br>*as HN3 vapor; **as NaN <sub>3</sub> ; Skin |
| TLV (United States) | Short-term value: C 0.29** mg/m <sup>3</sup> , C 0.11* ppm<br>*as HN3 vapor **as NaN <sub>3</sub>       |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
Follow the usual biosafety practices for handling potentially infectious materials.
- **Breathing equipment:** Not required.
- **Protection of hands:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
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**

**· General Information**

**· Appearance:**

|                         |                 |
|-------------------------|-----------------|
| <b>Form:</b>            | Liquid          |
| <b>Color:</b>           | Whitish         |
| <b>Odor:</b>            | Odorless        |
| <b>Odour threshold:</b> | Not determined. |

**· pH-value at 20 °C:** 5.0-8.0

**· Change in condition**

|                                     |              |
|-------------------------------------|--------------|
| <b>Melting point/Melting range:</b> | undetermined |
| <b>Boiling point/Boiling range:</b> | undetermined |

**· Flash point:** Not applicable

**· Flammability (solid, gaseous)** Not applicable.

**· Ignition temperature:** 400 °C

**· Decomposition temperature:** Not determined.

**· Auto igniting:** Product is not selfigniting.

**· Danger of explosion:** Product does not present an explosion hazard.

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**Safety Data Sheet**  
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**Trade name: dsDNA Calibrator, dsDNA Positive Control**

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|                                                   |                                            |
|---------------------------------------------------|--------------------------------------------|
| · <b>Explosion limits:</b>                        |                                            |
| <b>Lower:</b>                                     | 0.9 Vol %                                  |
| <b>Upper:</b>                                     | Not determined.                            |
| · <b>Vapor pressure at 20 °C:</b>                 | 23 hPa                                     |
| · <b>Density:</b>                                 | Not determined                             |
| · <b>Relative density</b>                         | Not determined.                            |
| · <b>Vapour density</b>                           | Not determined.                            |
| · <b>Evaporation rate</b>                         | Not determined.                            |
| · <b>Solubility in / Miscibility with Water:</b>  | Fully miscible                             |
| · <b>Partition coefficient (n-octanol/water):</b> | Not determined.                            |
| · <b>Viscosity:</b>                               |                                            |
| <b>dynamic:</b>                                   | Not determined.                            |
| <b>kinematic:</b>                                 | Not determined.                            |
| · <b>Solvent content:</b>                         |                                            |
| <b>Organic solvents:</b>                          | 45.1 %                                     |
| <b>Water:</b>                                     | 32.2 %                                     |
| · <b>Other information</b>                        | No further relevant information available. |

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:**  
This product contains sodium azide. Sodium azide can react with copper, brass, lead, and solder in piping systems to form explosive compounds of lead azide and copper azide.
- **Hazardous decomposition products:** No dangerous decomposition products known

**11 Toxicological information**

- **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.

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**Trade name: dsDNA Calibrator, dsDNA Positive Control**

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· **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**

- **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.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of waste in accordance to applicable national, regional, or local regulations. Flush pipes with water frequently if discarding solutions containing sodium azide into metal piping systems.
- **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)**
- **ADR, ADN, IMDG, IATA**
- **Class** Void
- **Packing group**
- **DOT, ADR, IMDG, IATA** Void
- **Environmental hazards:**
- **Marine pollutant:** No

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**Trade name: dsDNA Calibrator, dsDNA Positive Control**

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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":** -

**15 Regulatory information**

· **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)**

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

|            |              |
|------------|--------------|
| 26628-22-8 | sodium azide |
|------------|--------------|

· **Section 313 (40CFR372.65):**

|            |              |
|------------|--------------|
| 26628-22-8 | sodium azide |
|------------|--------------|

· **TSCA (Toxic Substances Control Act):**

|            |                                 |
|------------|---------------------------------|
| 56-81-5    | glycerol                        |
| 7647-14-5  | sodium chloride                 |
| 26628-22-8 | sodium azide                    |
| 7558-79-4  | disodium hydrogenorthophosphate |
| 7558-80-7  | Sodium dihydrogen phosphate     |
| 7732-18-5  | water                           |

· **National regulations**

· **Technical instructions (air):**

| Class | Share in % |
|-------|------------|
| NK    | 35-50      |

· **Water hazard class:** Generally not hazardous for water.

**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** 06/03/2015 / -

· **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

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**Trade name: dsDNA Calibrator, dsDNA Positive Control**

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*IATA: International Air Transport Association*  
*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)*  
*NFPA: National Fire Protection Association (USA)*

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

DUS



# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

## 1 Identification

- **Product identifier**
- **Trade name:** Conjugate
- **Catalog or product number:** 220HSP, 423-1005, 423-2004, 423-3004, 220HAN, 220HDS, 220HCE
- **Application of the substance / the mixture** *In-vitro laboratory reagent or component*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bio-Rad Laboratories, Diagnostic Group  
4000 Alfred Nobel Drive  
Hercules, California 94547
- 1(510)724-7000
- **Information department:**  
Technical services, customer support  
TechsupportUSSD@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.

## 2 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description:**  
*Stabilzyme Select HRP Conjugate Stabilizer*  
*(Proprietary aqueous, protein-containing mixture preserved with 0.02% methylisothiazolone, 0.02% bromonitrodioxane, and 20 ppm Proclin 300)*
- **Additional information:** *Contains added constituents of animal origin.*
- **Chemical characterization: Mixtures**
- **Description:** *Mixture of the substances listed below with non-hazardous additions.*
- **Listing of dangerous and non-hazardous components:** *Void*
- **Additional information** *For the wording of the listed risk phrases refer to section 15.*

## 3 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*
- **Classification system**
- **NFPA ratings (scale 0-4)**  
*Health = 1*  
*Fire = 0*  
*Reactivity = 0*

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

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Conjugate

(Contd. of page 1)

**4 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.

**5 Fire-fighting measures**

- **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.
- **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.
- **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.
- **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.
- **Components with limit values that require monitoring at the workplace:**

**56-81-5 glycerol**

|                     |                                                                |
|---------------------|----------------------------------------------------------------|
| PEL (United States) | 15* 5** mg/m <sup>3</sup><br>*total dust **respirable fraction |
|---------------------|----------------------------------------------------------------|

(Contd. on page 3)

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

Printing date 06/03/2015

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**Trade name: Conjugate**

(Contd. of page 2)

TLV (United States) 10\* ppm  
\*Mist

- **Additional information:** The lists that were valid during the creation were used as basis.
- **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**

- **General Information**
- **Appearance:**
  - Form: Liquid
  - Color: Amber
- **Odor:** Odorless
- **Odour threshold:** Not determined.
- **pH-value at 20 °C:** 7.2
- **Change in condition**
  - Melting point/Melting range: undetermined
  - Boiling point/Boiling range: 100 °C
- **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:** Not determined.
- **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.

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**Safety Data Sheet**  
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**Trade name: Conjugate**

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- **Viscosity:**
  - dynamic:** Not determined.
  - kinematic:** Not determined.
- **Solvent content:**
  - Organic solvents:** 0.9 %
  - Water:** 0.7 %
- **Other information** No further relevant information available.

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

**11 Toxicological information**

- **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.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Target organs:** Not applicable.

**12 Ecological information**

- **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.

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**Safety Data Sheet**  
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**Trade name: Conjugate**

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- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

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

**15 Regulatory information**

- **SARA (Superfund Amendments 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.

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**Trade name: Conjugate**

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**· TSCA (Toxic Substances Control Act):**

|           |                                 |
|-----------|---------------------------------|
| 56-81-5   | glycerol                        |
| 7647-14-5 | sodium chloride                 |
| 7558-79-4 | disodium hydrogenorthophosphate |
| 7732-18-5 | water                           |

**· National regulations**

**· Technical instructions (air):**

| Class | Share in % |
|-------|------------|
| NK    | 0.1-1.0    |

**· Water hazard class:** Generally not hazardous for water.

**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** 06/03/2015 / -

**· 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

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)

NFPA: National Fire Protection Association (USA)

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

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

Printing date 06/03/2015

Reviewed on 06/02/2015

**1 Identification**

- **Product identifier**
- **Trade name: Negative Control**
- **Catalog or product number:** 220NC, 220ND, 220NS, 423-1004, 423-0108
- **Application of the substance / the mixture** *In-vitro laboratory reagent or component*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*Bio-Rad Laboratories, Diagnostic Group  
4000 Alfred Nobel Drive  
Hercules, California 94547* 1(510)724-7000
- **Information department:**  
*Technical services, customer support  
TechsupportUSSD@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.*

**2 Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** *Mixture of the substances listed below with non-hazardous additions.*

· **Listing of dangerous and non-hazardous components:**

|           |                       |          |
|-----------|-----------------------|----------|
|           | Human Source Material | 35-50%   |
| 56-81-5   | glycerol              | 20-35%   |
| 7732-18-5 | water                 | 20-35%   |
|           | Goat Serum            | 1.0-2.5% |

- **Additional information**  
*Contains human sourced and/or potentially infectious components.  
For the wording of the listed risk phrases refer to section 15.*

**3 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*
- **Classification system**
- **NFPA ratings (scale 0-4)**  
*Health = 0  
Fire = 0  
Reactivity = 0*

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Negative Control

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### 4 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.

### 5 Fire-fighting measures

- **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.
- **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.
- **Methods and material for containment and cleaning up:**  
Disinfectant  
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.
- **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.

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**Trade name: Negative Control**

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**· Components with limit values that require monitoring at the workplace:**

**56-81-5 glycerol**

|                     |                                                                |
|---------------------|----------------------------------------------------------------|
| PEL (United States) | 15* 5** mg/m <sup>3</sup><br>*total dust **respirable fraction |
| TLV (United States) | 10* ppm<br>*Mist                                               |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
Follow the usual biosafety practices for handling potentially infectious materials.
- **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**

**· General Information**

**· Appearance:**

|                         |                 |
|-------------------------|-----------------|
| <b>Form:</b>            | Liquid          |
| <b>Color:</b>           | Whitish         |
| <b>Odor:</b>            | Odorless        |
| <b>Odour threshold:</b> | Not determined. |

**· pH-value:** Not determined.

**· Change in condition**

|                                     |              |
|-------------------------------------|--------------|
| <b>Melting point/Melting range:</b> | undetermined |
| <b>Boiling point/Boiling range:</b> | undetermined |

**· Flash point:** Not applicable

**· Flammability (solid, gaseous)** Not applicable.

**· Ignition temperature:** 400 °C

**· Decomposition temperature:** Not determined.

**· Auto igniting:** Product is not selfigniting.

**· Danger of explosion:** Product does not present an explosion hazard.

**· Explosion limits:**

|               |                 |
|---------------|-----------------|
| <b>Lower:</b> | 0.9 Vol %       |
| <b>Upper:</b> | Not determined. |

**· Vapor pressure at 20 °C:** 23 hPa

|                           |                 |
|---------------------------|-----------------|
| <b>· Density:</b>         | Not determined  |
| <b>· Relative density</b> | Not determined. |
| <b>· Vapour density</b>   | Not determined. |

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|                                                       |                                            |
|-------------------------------------------------------|--------------------------------------------|
| · <b>Evaporation rate</b>                             | Not determined.                            |
| · <b>Solubility in / Miscibility with Water:</b>      | Fully miscible                             |
| · <b>Partition coefficient (n-octanol/water):</b>     | Not determined.                            |
| · <b>Viscosity:</b><br><b>dynamic:</b>                | Not determined.                            |
| <b>kinematic:</b>                                     | Not determined.                            |
| · <b>Solvent content:</b><br><b>Organic solvents:</b> | 29.5 %                                     |
| <b>Water:</b>                                         | 21.0 %                                     |
| · <b>Other information</b>                            | No further relevant information available. |

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

**11 Toxicological information**

- **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.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Target organs:** Not applicable.

**12 Ecological information**

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

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**Trade name: Negative Control**

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- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
Can be disposed of with household garbage with prior chemical-physical or biological treatment following consultation with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

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

**15 Regulatory information**

· **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)**

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

None of the ingredients is listed.

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· **Section 313 (40CFR372.65):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

|           |                                 |
|-----------|---------------------------------|
| 56-81-5   | glycerol                        |
| 7647-14-5 | sodium chloride                 |
| 7558-79-4 | disodium hydrogenorthophosphate |
| 7558-80-7 | Sodium dihydrogen phosphate     |
| 7732-18-5 | water                           |

· **National regulations**

· **Technical instructions (air):**

| Class | Share in % |
|-------|------------|
| NK    | 20-35      |

· **Water hazard class:** Generally not hazardous for water.

**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** 06/03/2015 / -

· **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

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)

NFPA: National Fire Protection Association (USA)

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

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

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Reviewed on 06/02/2015

**1 Identification**

- **Product identifier**
- **Trade name:** Stop Solution
- **Catalog or product number:** 220SM, 423-0004, 220HS
- **Application of the substance / the mixture** *In-vitro laboratory reagent or component*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
*Bio-Rad Laboratories, Diagnostic Group  
4000 Alfred Nobel Drive  
Hercules, California 94547* 1(510)724-7000
- **Information department:**  
*Technical services, customer support  
TechsupportUSSD@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.*

**2 Composition/information on ingredients**

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

**Listing of dangerous and non-hazardous components:**

|           |                |          |
|-----------|----------------|----------|
| 7664-93-9 | sulphuric acid | 1.0-2.5% |
|-----------|----------------|----------|

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

**3 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*
  - **Classification system**
  - **NFPA ratings (scale 0-4)**  
*Health = 0  
Fire = 0  
Reactivity = 0*

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Reviewed on 06/02/2015

Trade name: **Stop Solution**

(Contd. of page 1)

**4 First-aid measures**

- **General information** No special measures required.
- **After inhalation** Seek immediate medical advice.
- **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** Rinse mouth with water. Seek medical attention and appropriate follow-up.

**5 Fire-fighting measures**

- **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.
- **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.
- **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.

· **Components with limit values that require monitoring at the workplace:**

**7647-01-0 hydrochloric acid**

PEL (United States) Short-term value: C 7 mg/m<sup>3</sup>, C 5 ppm

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**Trade name: Stop Solution**

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|                     |                                                      |
|---------------------|------------------------------------------------------|
| REL (United States) | Short-term value: C 7 mg/m <sup>3</sup> , C 5 ppm    |
| TLV (United States) | Short-term value: C 2.98 mg/m <sup>3</sup> , C 2 ppm |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **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**

- **General Information**
- **Appearance:**
  - Form: Liquid
  - Color: Colorless
- **Odor:** Odorless
- **Odour threshold:** Not determined.
- **pH-value at 20 °C:** < 3
- **Change in condition**
  - Melting point/Melting range: 0 °C
  - Boiling point/Boiling range: 100 °C
- **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 at 20 °C:** 1.009 g/cm<sup>3</sup>
- **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.

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**Trade name: Stop Solution**

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- **Viscosity:**
  - dynamic:** Not determined.
  - kinematic:** Not determined.
- **Solvent content:**
  - Organic solvents:** 0.0 %
  - Water:** 97.0 %
- **Other information** No further relevant information available.

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

**11 Toxicological information**

- **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)**

|           |                   |   |
|-----------|-------------------|---|
| 7647-01-0 | hydrochloric acid | 3 |
| 7664-93-9 | sulphuric acid    | 1 |

· **NTP (National Toxicology Program)**

|           |                |   |
|-----------|----------------|---|
| 7664-93-9 | sulphuric acid | K |
|-----------|----------------|---|

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

- **Target organs:** Not applicable.

**12 Ecological information**

- **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.

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**Trade name: Stop Solution**

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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.

**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.

Dispose of waste in accordance to applicable national, regional, or local regulations.

· **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)**

· **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":** -

**15 Regulatory information**

· **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)**

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

7647-01-0 hydrochloric acid

7664-93-9 sulphuric acid

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**Trade name: Stop Solution**

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· **Section 313 (40CFR372.65):**

7647-01-0 hydrochloric acid

7664-93-9 sulphuric acid

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **National regulations**

· **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

**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** 06/03/2015 / -

· **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

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)

NFPA: National Fire Protection Association (USA)

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

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

Printing date 06/03/2015

Reviewed on 06/02/2015

**1 Identification**

- **Product identifier**
- **Trade name:** Substrate
- **Catalog or product number:** 220TM, 423-0003, 220HT
- **Application of the substance / the mixture** In-vitro laboratory reagent or component
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bio-Rad Laboratories, Diagnostic Group  
4000 Alfred Nobel Drive  
Hercules, California 94547 1(510)724-7000
- **Information department:**  
Technical services, customer support  
TechsupportUSSD@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.

**2 Composition/information on ingredients**

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with non-hazardous additions.

· **Listing of dangerous and non-hazardous components:**

|            |                                |           |
|------------|--------------------------------|-----------|
| 7732-18-5  | water                          | 50-100%   |
| 67-56-1    | methanol                       | 10-20%    |
| 67-64-1    | acetone                        | 5-10%     |
| 67-68-5    | dimethyl sulfoxide             | 2.5-5%    |
| 54827-17-7 | 3,3',5,5'-tetramethylbenzidine | 0.01-0.1% |

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

**3 Hazard(s) identification**

- **Classification of the substance or mixture**  
Acute Tox. 4 H332 Harmful if inhaled.  
Eye Irrit. 2A H319 Causes serious eye irritation.  
STOT SE 1 H370 Causes damage to organs.
- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger

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Trade name: Substrate

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- **Hazard-determining components of labeling:**

methanol

acetone

3,3',5,5'-tetramethylbenzidine

- **Hazard statements**

H332 Harmful if inhaled.

H319 Causes serious eye irritation.

H370 Causes damage to organs.

- **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P280 Wear eye protection / face protection.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P321 Specific treatment (see on this label).

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Classification system**

- **NFPA ratings (scale 0-4)**

Health = 1

Fire = 2

Reactivity = 0

### 4 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** Rinse mouth with water. Seek medical attention and appropriate follow-up.

### 5 Fire-fighting measures

- **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.
- **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.

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**Trade name: Substrate**

See Section 13 for disposal information.

(Contd. of page 2)

**7 Handling and storage**

- **Handling**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **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.

- **Components with limit values that require monitoring at the workplace:**

**67-56-1 methanol**

|                     |                                                                                                                    |
|---------------------|--------------------------------------------------------------------------------------------------------------------|
| PEL (United States) | 260 mg/m <sup>3</sup> , 200 ppm                                                                                    |
| REL (United States) | Short-term value: 325 mg/m <sup>3</sup> , 250 ppm<br>Long-term value: 260 mg/m <sup>3</sup> , 200 ppm<br>Skin      |
| TLV (United States) | Short-term value: 328 mg/m <sup>3</sup> , 250 ppm<br>Long-term value: 262 mg/m <sup>3</sup> , 200 ppm<br>Skin; BEI |

**67-64-1 acetone**

|                     |                                                                                                                |
|---------------------|----------------------------------------------------------------------------------------------------------------|
| PEL (United States) | 2400 mg/m <sup>3</sup> , 1000 ppm                                                                              |
| REL (United States) | 590 mg/m <sup>3</sup> , 250 ppm                                                                                |
| TLV (United States) | Short-term value: 1782 mg/m <sup>3</sup> , 750 ppm<br>Long-term value: 1188 mg/m <sup>3</sup> , 500 ppm<br>BEI |

**67-68-5 dimethyl sulfoxide**

|                      |         |
|----------------------|---------|
| WEEL (United States) | 250 ppm |
|----------------------|---------|

**7722-84-1 hydrogen peroxide solution**

|                     |                               |
|---------------------|-------------------------------|
| PEL (United States) | 1.4 mg/m <sup>3</sup> , 1 ppm |
| REL (United States) | 1.4 mg/m <sup>3</sup> , 1 ppm |
| TLV (United States) | 1.4 mg/m <sup>3</sup> , 1 ppm |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **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

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

Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: Substrate**

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- **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**

- **General Information**
- **Appearance:**
  - **Form:** Liquid
  - **Color:** Whitish
- **Odor:** Like alcohol
- **Odour threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
  - **Melting point/Melting range:** undetermined
  - **Boiling point/Boiling range:** undetermined
- **Flash point:** > 55 °C
- **Flammability (solid, gaseous)** Not applicable.
- **Ignition temperature:** 455 °C
- **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
  - **Lower:** 2.6 Vol %
  - **Upper:** 44.0 Vol %
- **Vapor pressure at 20 °C:** 233 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:** 28.0 %
  - **Water:** 71.9 %

(Contd. on page 5)

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

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**Trade name: Substrate**

(Contd. of page 4)

· **Other information** No further relevant information available.

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

**11 Toxicological information**

· **Acute toxicity:**

· **LD/LC50 values for hazardous components per OSHA criteria:**

**67-56-1 methanol**

|        |      |                   |
|--------|------|-------------------|
| Oral   | LD50 | 5628 mg/kg (rat)  |
| Dermal | LD50 | 20000 mg/kg (rat) |

**67-64-1 acetone**

|        |      |                   |
|--------|------|-------------------|
| Oral   | LD50 | 5800 mg/kg (rat)  |
| Dermal | LD50 | 20000 mg/kg (rbt) |

**67-68-5 dimethyl sulfoxide**

|      |      |                   |
|------|------|-------------------|
| Oral | LD50 | 14500 mg/kg (rat) |
|------|------|-------------------|

· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:**

No irritant effect.  
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)**

|           |                            |   |
|-----------|----------------------------|---|
| 7722-84-1 | hydrogen peroxide solution | 3 |
|-----------|----------------------------|---|

· **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**

· **Aquatic toxicity:** No further relevant information available.

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**Safety Data Sheet**  
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**Trade name: Substrate**

(Contd. of page 5)

- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (Self-assessment): hazardous for water.  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.  
Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

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

DUS

(Contd. on page 7)



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acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: **Substrate**

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**15 Regulatory information**

· **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)**

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

7722-84-1 | hydrogen peroxide solution

· **Section 313 (40CFR372.65):**

67-56-1 | methanol

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **California Proposition 65:**

· **Developmental Toxicity**

67-56-1 | methanol

· **National regulations**

· **Technical instructions (air):**

| Class | Share in % |
|-------|------------|
| I     | 10-20      |
| NK    | 10-20      |

· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

**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** 06/03/2015 / -

· **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

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)

NFPA: National Fire Protection Association (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

STOT SE 1: Specific target organ toxicity - Single exposure, Hazard Category 1

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

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**1 Identification**

- **Product identifier**
- **Trade name:** DNA Diluent
- **Catalog or product number:** 240DD, 423-1006
- **Application of the substance / the mixture** *In-vitro laboratory reagent or component*
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bio-Rad Laboratories, Diagnostic Group  
4000 Alfred Nobel Drive  
Hercules, California 94547 1(510)724-7000
- **Information department:**  
Technical services, customer support  
TechsupportUSSD@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.

**2 Composition/information on ingredients**

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

**Listing of dangerous and non-hazardous components:**

|                                    |          |
|------------------------------------|----------|
| Stabilguard Immunoassay Stabilizer | 1.0-2.5% |
|------------------------------------|----------|

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

**3 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*

**4 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.

(Contd. on page 2)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: DNA Diluent**

(Contd. of page 1)

· **After swallowing** Induce vomiting and call for medical help.

**5 Fire-fighting measures**

- **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.
- **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.
- **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.
- **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.

· **Components with limit values that require monitoring at the workplace:**

**26628-22-8 sodium azide**

|                     |                                                                                            |
|---------------------|--------------------------------------------------------------------------------------------|
| REL (United States) | Short-term value: C 0.3** mg/m <sup>3</sup> , C 0.1* ppm<br>*as HN3 vapor; **as NaN3; Skin |
| TLV (United States) | Short-term value: C 0.29** mg/m <sup>3</sup> , C 0.11* ppm<br>*as HN3 vapor **as NaN3      |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **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.

(Contd. on page 3)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: DNA Diluent**

(Contd. of page 2)

- **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**

- **General Information**
- **Appearance:**
  - Form:** Liquid
  - Color:** Colorless
- **Odor:** Odorless
- **Odour threshold:** Not determined.
- **pH-value at 20 °C:** 7
- **Change in condition**
  - Melting point/Melting range:** 0 °C
  - 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:** 96.5 %

(Contd. on page 4)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: DNA Diluent**

(Contd. of page 3)

· **Other information** No further relevant information available.

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:**  
This product contains sodium azide. Sodium azide can react with copper, brass, lead, and solder in piping systems to form explosive compounds of lead azide and copper azide.
- **Hazardous decomposition products:** No dangerous decomposition products known

**11 Toxicological information**

- **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.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

· **Target organs:** Not applicable.

**12 Ecological information**

- **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.

**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.

(Contd. on page 5)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: DNA Diluent**

(Contd. of page 4)

Dispose of waste in accordance to applicable national, regional, or local regulations.  
Flush pipes with water frequently if discarding solutions containing sodium azide into metal piping systems.

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

**14 Transport information**

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

**15 Regulatory information**

· **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)**

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

|            |              |
|------------|--------------|
| 26628-22-8 | sodium azide |
|------------|--------------|

· **Section 313 (40CFR372.65):**

|            |              |
|------------|--------------|
| 26628-22-8 | sodium azide |
|------------|--------------|

· **TSCA (Toxic Substances Control Act):**

|            |                                 |
|------------|---------------------------------|
| 7647-14-5  | sodium chloride                 |
| 7558-79-4  | disodium hydrogenorthophosphate |
| 9000-70-8  | Gelatins                        |
| 26628-22-8 | sodium azide                    |
| 7558-80-7  | Sodium dihydrogen phosphate     |
| 9005-64-5  | Tween 20                        |

(Contd. on page 6)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: DNA Diluent**

(Contd. of page 5)

7732-18-5 | water

**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** 06/03/2015 / -

· **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

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)

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

DUS

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**1 Identification**

- **Product identifier**
- **Trade name:** DNA Wash Concentrate
- **Catalog or product number:** 240DW, 423-1007
- **Application of the substance / the mixture** In-vitro laboratory reagent or component
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bio-Rad Laboratories, Diagnostic Group  
4000 Alfred Nobel Drive  
Hercules, California 94547 1(510)724-7000
- **Information department:**  
Technical services, customer support  
TechsupportUSSD@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.

**2 Composition/information on ingredients**

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with non-hazardous additions.

· **Listing of dangerous and non-hazardous components:**

|           |                                 |          |
|-----------|---------------------------------|----------|
| 7732-18-5 | water                           | 50-100%  |
| 7647-14-5 | sodium chloride                 | 5-10%    |
| 7558-79-4 | disodium hydrogenorthophosphate | 1.0-2.5% |

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

**3 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
- **Classification system**
- **NFPA ratings (scale 0-4)**  
Health = 0  
Fire = 0  
Reactivity = 0

**4 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.

(Contd. on page 2)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/03/2015

Trade name: DNA Wash Concentrate

(Contd. of page 1)

- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Induce vomiting and call for medical help.

### 5 Fire-fighting measures

- **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.
- **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.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
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.
- **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.
- **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.
- **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:**  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Protective gloves.
- **Material of gloves** Synthetic gloves

(Contd. on page 3)

DUS

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: DNA Wash Concentrate**

(Contd. of page 2)

- **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

- **General Information**

- **Appearance:**

|                           |                 |
|---------------------------|-----------------|
| · <b>Form:</b>            | Liquid          |
| · <b>Color:</b>           | Whitish         |
| · <b>Odor:</b>            | Odorless        |
| · <b>Odour threshold:</b> | Not determined. |

- **pH-value at 20 °C:** 7

- **Change in condition**

|                                       |              |
|---------------------------------------|--------------|
| · <b>Melting point/Melting range:</b> | undetermined |
| · <b>Boiling point/Boiling range:</b> | 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:**

|                 |                 |
|-----------------|-----------------|
| · <b>Lower:</b> | Not determined. |
| · <b>Upper:</b> | Not determined. |

- **Vapor pressure at 20 °C:** 23 hPa

|                           |                 |
|---------------------------|-----------------|
| · <b>Density:</b>         | Not determined  |
| · <b>Relative density</b> | Not determined. |
| · <b>Vapour density</b>   | Not determined. |
| · <b>Evaporation rate</b> | Not determined. |

- **Solubility in / Miscibility with**

**Water:** Fully miscible

- **Partition coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

|                     |                 |
|---------------------|-----------------|
| · <b>dynamic:</b>   | Not determined. |
| · <b>kinematic:</b> | Not determined. |

- **Solvent content:**

|                            |        |
|----------------------------|--------|
| · <b>Organic solvents:</b> | 0.0 %  |
| · <b>Water:</b>            | 89.4 % |

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· **Other information** No further relevant information available.

**10 Stability and reactivity**

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

**11 Toxicological information**

- **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:**
- **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.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

**12 Ecological information**

- **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.
- **Additional ecological information:**
- **General notes:** Generally not hazardous for water.

**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Dispose of waste in accordance to applicable national, regional, or local regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

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

**14 Transport information**

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

**15 Regulatory information**

· **SARA (Superfund Amendments 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):**

All ingredients are listed.

· **National regulations**

· **Water hazard class:** Generally not hazardous for water.

**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

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

· **Date of preparation / last revision** 06/03/2015 / -

· **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

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)

NFPA: National Fire Protection Association (USA)

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