

Kit Components

06/03/2015

| Product code | Description | |
|--------------|----------------------------|--|
| 96AN | Autoimmune EIA ANA 96AN | |
| 576AN | | |
| 424-0000 | | |
| 425-0000 | | |
| 4884261 | | |

Components:

| 220NC | Negative Control |
|--------|---|
| 220HSP | Conjugate |
| 220SM | Stop Solution |
| 220TM | Substrate |
| 230AD | Sample Diluent 230AD |
| 230AW | Wash Concentrate 230AW |
| 200AN | ANA Screening Test Pos. Control, Calibrator 200AN |

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

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 Com | position/infor | mation o | n ingre | diante |
|--------|----------------|----------|------------|--------|
| 2 6011 | ροδιαση/πησι | mation | II IIIYI C | ulents |

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

· Listing of Jangerous and non-hazardous components: 35-50% 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 closelfied according to the Clobellul

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

(Contd. on page 2)

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Reviewed on 06/02/2015

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Negative Control

(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: 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.

(Contd. on page 3)

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BIO RAD

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

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Page 3/6

Trade name: Negative Control

| 56-81-5 glycerol PEL (United States) 15' 5''' mg/m³ Total dust ''respirable fraction 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 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 Physical and chemical properties General Information Appearance: Form: Liquid Color: Whilish Odour threshold: Not determined. Physical in condition Meting point/Boiling range: undetermined Boiling point/Boiling range: undetermined Boiling point/Boiling range: undetermined Flash point: Not deplicable Flash point: Not deplicable. Equivaluation temperature: Not determined. Elsoion limits: Logen of explosion: Product is not selfigniting. Danger of explosion: Product does not present an explosion hazard. Explosion limits: Lower: Log Vol % Lupper: Not determined Belsity: Not determined | Components with limit | (Contd. of page of the workplace: |
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Safety Data Sheet acc. to OSHA HCS

Page 4/6

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Negative Control

| | | (Contd. of page 3 |
|------------------------------------|--|-------------------|
| · Evaporation rate | Not determined. | |
| · Solubility in / Miscibility with | | |
| Water: | Fully miscible | |
| · Partition coefficient (n-octan | ol/water): Not determined. | |
| · Viscosity: | | |
| dynamic: | Not determined. | |
| kinematic: | Not determined. | |
| · Solvent content: | | |
| Organic solvents: | 29.5 % | |
| Water: | 21.0 % | |
| · 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)

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.

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Trade name: Negative Control

(Contd. of page 4)

Reviewed on 06/02/2015

- · 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

| · UN-Number · DOT, ADR, ADN, IMDG, IATA · UN proper shipping name · DOT, ADR, ADN, IMDG, IATA Void |
|--|
| · 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 Amendents and Reauthorization Act of 1986 - USA)

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

None of the ingredients is listed.

(Contd. on page 6)

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Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

(Contd. of page 5)

Trade name: Negative Control

| | | ` |
|------------|--|---|
| | 313 (40CFR372.65): | |
| None of th | ne ingredients is listed. | |
| · TSCA (To | xic 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 | |
| · Technica | regulations I instructions (air): 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.

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

(Contd. on page 2)

DUS



Page 1/6

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Conjugate

(Contd. of page 1)

Page 2/6

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/m³

*total dust **respirable fraction

(Contd. on page 3)

- DUS -

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

(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 100 °C Boiling point/Boiling range: · 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. Not determined. Upper: · Vapor pressure: Not determined. · Density: Not determined · Relative density Not determined. · Vapour density Not determined. · Evaporation rate Not determined. · Solubility in / Miscibility with Fully miscible Water: · Partition coefficient (n-octanol/water): Not determined.

(Contd. on page 4)

DUS

Safety Data Sheet acc. to OSHA HCS

Page 4/6

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Conjugate

| | (Contd. of p |
|---------------------------------------|--|
| · 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.

(Contd. on page 5)

DUS -

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Trade name: Conjugate

(Contd. of page 4)

Reviewed on 06/02/2015

· 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

| · 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/ and the IBC Code | 78 Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

15 Regulatory information

· SARA (Superfund Amendents 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.

(Contd. on page 6)

Page 5/6

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

(Contd. of page 5)

DUS

Trade name: Conjugate

· 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.

Page 6/6

Safety Data Sheet acc. to OSHA HCS

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

(Contd. on page 2)

DUS

Page 1/6

Reviewed on 06/02/2015



Printing date 06/03/2015

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Trade name: Stop Solution

Reviewed on 06/02/2015

(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
- · 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/m³, C 5 ppm

(Contd. on page 3)

DUS

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Stop Solution

(Contd. of page 2)

REL (United States) Short-term value: C 7 mg/m³, C 5 ppm

TLV (United States) Short-term value: C 2.98 mg/m³, 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 prope | erties | |
|--|--|-------------------|
| General Information Appearance: Form: Color: Odor: Odour threshold: | Liquid Colorless Odorless Not determined. | |
| · pH-value at 20 °C: | < 3 | |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: | 0 °C 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: Upper: | Not determined. Not determined. | |
| Vapor pressure at 20 °C: | 23 hPa | |
| Density at 20 °C: Relative density Vapour density Evaporation rate | 1.009 g/cm ³ Not determined. Not determined. Not determined. | |
| Solubility in / Miscibility with Water: | Fully miscible | |
| · Partition coefficient (n-octanol/wat | t er): Not determined. | |
| | | (Contd. on page 4 |

Page 3/6

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Stop Solution

| | | (Contd. of page |
|---------------------------------------|--|-----------------|
| · 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

| • | rnational Agency for Research on Cancer) | |
|--------------|---|---|
| | hydrochloric acid | 3 |
| 7664-93-9 | sulphuric acid | 1 |
| - | onal Toxicology Program) | |
| 7664-93-9 | sulphuric acid | K |
| | (Occupational Safety & Health Administration) | |
| None of the | e ingredients is listed. | |
| · Target org | ans: Not applicable. | |

12 Ecological information

· Aquatic toxicity: No further relevant information available.

- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- \cdot **Bioaccumulative potential** No further relevant information available.

(Contd. on page 5)

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Trade name: Stop Solution

Reviewed on 06/02/2015

(Contd. of page 4)

· 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 MARPOL73/7 and the IBC Code | 78 Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

15 Regulatory information

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

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

7647-01-0 hydrochloric acid

7664-93-9 sulphuric acid

(Contd. on page 6)

DUS

Page 5/6

BIO RAD

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Stop Solution

(Contd. of page 5)

· 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.

DUS

Page 6/6

Safety Data Sheet acc. to OSHA HCS

Page 1/7

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 a | angerous 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 | |

· 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



· Signal word Danger

(Contd. on page 2)

DUS

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Substrate

(Contd. of page 1)

| methanol | ermining components of labeling. |
|-----------------|--|
| acetone | |
| 3.3'.5.5'-tetra | amethylbenzidine |
| Hazard stat | • |
| H332 Harmf | ul if inhaled. |
| H319 Cause | es serious eye irritation. |
| | es damage to organs. |
| · Precautiona | ary 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. |
| · Classificatio | on system |
| · NFPA rating | gs (scale 0-4) |
| Health = 1 | |
| Fire = 2 | |
| Reactivity = | 0 |

4 First-aid measures

· General information No special measures required.

· Hazard-determining components of labeling

- · 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
- 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.

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Substrate

(Contd. of page 2)

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 t | the workplace: |
|--------------------------------|------------------------------|----------------|
| | | |

| ••••• | ······································ |
|----------------------|--|
| 67-56-1 methanol | |
| PEL (United States) | 260 mg/m³, 200 ppm |
| REL (United States) | Short-term value: 325 mg/m³, 250 ppm Long-term value: 260 mg/m³, 200 ppm Skin |
| TLV (United States) | Short-term value: 328 mg/m³, 250 ppm Long-term value: 262 mg/m³, 200 ppm Skin; BEI |
| 67-64-1 acetone | · |
| PEL (United States) | 2400 mg/m³, 1000 ppm |
| REL (United States) | 590 mg/m³, 250 ppm |
| TLV (United States) | Short-term value: 1782 mg/m³, 750 ppm Long-term value: 1188 mg/m³, 500 ppm BEI |
| 67-68-5 dimethyl sul | foxide |
| WEEL (United States) | 250 ppm |
| 7722-84-1 hydrogen | peroxide solution |
| | |

PEL (United States)1.4 mg/m³, 1 ppmREL (United States)1.4 mg/m³, 1 ppmTLV (United States)1.4 mg/m³, 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

(Contd. on page 4)



Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Trade name: Substrate

*

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

| 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 ℃ | |
| 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/wa | ter): Not determined. | |
| Viscosity: | | |
| dynamic: | Not determined. | |
| kinematic: | Not determined. | |
| Solvent content: | | |
| Organic solvents: | 28.0 % | |
| Water: | 71.9 % | |

(Contd. of page 3)

Reviewed on 06/02/2015

BIO RAD

Safety Data Sheet acc. to OSHA HCS

Page 5/7

Printing date 06/03/2015 Reviewed on 06/02/2015 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 eve: 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.

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Trade name: Substrate

Reviewed on 06/02/2015

(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

| · 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/ and the IBC Code | 78 Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

(Contd. on page 7)

DUS

Page 7/7

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Substrate

(Contd. of page 6)

15 Regulatory information

· SARA (Superfund Amendents 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 % |
|-------|------------|
| Ι | 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.

DUS -

Safety Data Sheet acc. to OSHA HCS

Page 1/6

Printing date 06/03/2015

Reviewed on 05/26/2015

1 Identification

- · Product identifier
- · Trade name: Sample Diluent
- Catalog or product number: 230AD, 423-0002
 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.

| | ition/information on ingredients | |
|------------------------------------|---|-------------------|
| •• | characterization: Substances | |
| · CAS No. D | | |
| 7732-18-5 | water | |
| Identification | ion number(s): | |
| · EC numbe | er: 231-791-2 | |
| · Chemical | characterization: Mixtures | |
| Descriptio | n: Mixture of the substances listed below with non-hazardous additions. | |
| · Listing of | dangerous and non-hazardous components: | |
| gen | | |
| 7732-18-5 | water | 50-100% |
| • | water Goat Serum | 50-100% 2.5-5% |

· 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

(Contd. on page 2)

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Trade name: Sample Diluent

(Contd. of page 1)

Classification system
 NFPA ratings (scale 0-4)
 Health = 0

Fire = 0Reactivity = 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 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.
- \cdot 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.

(Contd. on page 3)

DUS

Reviewed on 05/26/2015

BIO RAD

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

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Trade name: Sample Diluent

Reviewed on 05/26/2015

(Contd. of page 2)

| · Additional information about des | ign of technical systems: No further data; see item 7. | |
|--|---|--|
| · Components with limit values that | at require monitoring at the workplace: | |
| 26628-22-8 sodium azide | | |
| | Short-term value: C 0.3** mg/m³, C 0.1* ppm *as HN3 vapor; **as NaN3; Skin | |
| | Short-term value: C 0.29** mg/m³, C 0.11* ppm *as HN3 vapor **as NaN3 | |
| Personal protective equipment General protective and hygienic if Breathing equipment: Not required Protection of hands: The glove material has to be imperimented by the protective gloves. Material of gloves Synthetic gloves Penetration time of glove material | neable and resistant to the product/ the substance/ the preparation. | |
| 9 Physical and chemical prop | erties | |
| General Information Appearance: Form: Color: Odor: | Liquid Whitish Odorless | |
| General Information Appearance: Form: Color: | Liquid Whitish | |
| General Information Appearance: Form: Color: Odor: | Liquid Whitish Odorless | |
| General Information Appearance: Form: Color: Odor: Odour threshold: | Liquid Whitish Odorless Not determined. | |
| General Information Appearance: Form: Color: Odor: Odor: Odour threshold: pH-value at 20 °C: Change in condition Melting point/Melting range: | Liquid Whitish Odorless Not determined. 7.3 undetermined | |
| General Information Appearance: Form: Color: Odor: Odour threshold: pH-value at 20 °C: Change in condition Melting point/Melting range: Boiling point/Boiling range: | Liquid Whitish Odorless Not determined. 7.3 undetermined 100 °C | |
| General Information Appearance: Form: Color: Odor: Odour threshold: pH-value at 20 °C: Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point: | Liquid Whitish Odorless Not determined. 7.3 undetermined 100 °C Not applicable | |
| General Information Appearance: Form: Color: Odor: Odour threshold: pH-value at 20 °C: Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point: Flammability (solid, gaseous) | Liquid Whitish Odorless Not determined. 7.3 undetermined 100 °C Not applicable | |
| General Information Appearance: Form: Color: Odor: Odour threshold: pH-value at 20 °C: Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point: Flammability (solid, gaseous) Ignition temperature: Decomposition temperature: | Liquid Whitish Odorless Not determined. 7.3 undetermined 100 °C Not applicable Not applicable. Not determined. | |
| Appearance: Form: Color: Odor: Odour threshold: pH-value at 20 °C: Change in condition Melting point/Melting range: Boiling point/Boiling range: Flash point: Flammability (solid, gaseous) Ignition temperature: | Liquid Whitish Odorless Not determined. 7.3 undetermined 100 °C Not applicable Not applicable. | |

(Contd. on page 4)

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 05/26/2015

Trade name: Sample Diluent

| | | (Contd. of page 3) |
|--|--|--------------------|
| Vapor pressure at 20 °C: | 23 hPa | |
| · Density at 20 °C: | 1.00181 g/cm ³ | |
| · Relative density | Not determined. | |
| · Vapour density | Not determined. | |
| · Evaporation rate | Not determined. | |
| · Solubility in / Miscibility with | | |
| Water: | Fully miscible | |
| · Partition coefficient (n-octanol/ | water): Not determined. | |
| · Viscosity: | | |
| dynamic: | Not determined. | |
| kinematic: | Not determined. | |
| · Solvent content: | | |
| Organic solvents: | 0.0 % | |
| Water: | 94.2 % | |
| 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.

(Contd. on page 5) DUS

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Trade name: Sample Diluent

· 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

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.

| IN-Number IOT, ADR, ADN, IMDG, IATA | Void |
|---|--|
| N proper shipping name OT, ADR, ADN, IMDG, IATA | Void |
| ransport 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 MARP and the IBC Code | OL73/78 Not applicable. |
| Transport/Additional information: | Not dangerous according to the above specifications. |

(Contd. on page 6)

Reviewed on 05/26/2015

(Contd. of page 4)

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Trade name: Sample Diluent

Reviewed on 05/26/2015

(Contd. of page 5)

15 Regulatory information

· SARA (Superfund Amendents 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

26628-22-8 sodium azide

7558-79-4 disodium hydrogenorthophosphate 9000-70-8 Gelatins

7558-80-7 Sodium dihydrogen phosphate

· National regulations

7732-18-5 water

· 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

EINECS: European Inventory of Existing Commercial Chemical Substance 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

Page 1/6

Printing date 06/03/2015

Reviewed on 06/02/2015

1 Identification

- · Product identifier
- · Trade name: Wash Concentrate
- Catalog or product number: 230AW, 423-0005
 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 Compos | ition/information on ingredients | |
|---|---|---------|
| CAS No. D 7732-18-5 Identificat EC numbe Chemical | ion number(s): r: 231-791-2 characterization: Mixtures n: 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 | 10-20% |
| 7558-79-4 | 7558-79-4 disodium hydrogenorthophosphate 1.0-2.5% | |
| 9005-64-5 Tween 20 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

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

· Label elements

- · GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Wash Concentrate

(Contd. of page 1)

Page 2/6

| . | |
|---------------------------------------|---|
| Signal word Water | • |
| Hazard statem | ents |
| H315 Causes si | kin irritation. |
| H319 Causes s | erious eye irritation. |
| · Precautionary | • |
| P280 | Wear protective gloves. |
| P280 | Wear eye protection / face protection. |
| P305+P351+P3 | 38 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). |
| P332+P313 | If skin irritation occurs: Get medical advice/attention. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| · Classification | system |
| · NFPA ratings (| |
| Health = 1 | |
| Fire = 0 | |
| Reactivity = 0 | |
| Health = 1 Fire = 0 | scale 0-4) |

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.

(Contd. on page 3)

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Wash Concentrate

(Contd. of page 2)

Page 3/6

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
- · 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

| General Information | | |
|---|------------------------------|--|
| Appearance: | | |
| Form: | Liquid | |
| Color: | Whitish | |
| Odor: | Odorless | |
| Odour threshold: | Not determined. | |
| pH-value at 20 °C: | 7.3 | |
| Change in condition Melting point/Melting range: Boiling point/Boiling range: | undetermined undetermined | |
| Flash point: | Not applicable | |
| Flammability (solid, gaseous) | Not applicable. | |

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Wash Concentrate

| | | (Contd. of page |
|-------------------------------------|---|-----------------|
| 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/wa | ter): Not determined. | |
| Viscosity: | | |
| dynamic: | Not determined. | |
| kinematic: | Not determined. | |
| Solvent content: | | |
| Organic solvents: | 0.0 % | |
| Water: | 85.0 % | |
| 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.

Irritant to skin and mucous membranes.

- **on the eye:** No irritant effect. Irritant effect.
- · Sensitization: No sensitizing effects known.

(Contd. on page 5)

Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Trade name: Wash Concentrate

· 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.
- · 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.

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

14 Transport information

| | | (Contd. on page 6) |
|--|------|--------------------|
| · ADR, ADN, IMDG, IATA · Class | Void | |
| Transport hazard class(es) | | |
| • UN proper shipping name • DOT, ADR, ADN, IMDG, IATA | Void | |
| · UN-Number · DOT, ADR, ADN, IMDG, IATA | Void | |



(Contd. of page 4)

Reviewed on 06/02/2015



[·] Uncleaned packagings:

Safety Data Sheet acc. to OSHA HCS

Page 6/6

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: Wash Concentrate

| | (Contd. of page 5) |
|--|--|
| · Packing group · DOT, ADR, IMDG, IATA | Void |
| · Environmental hazards: · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| Transport in bulk according to Annex II of Ma and the IBC Code | ARPOL73/78 Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

15 Regulatory information

· SARA (Superfund Amendents 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

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 / -

Safety Data Sheet acc. to OSHA HCS

Page 1/7

Printing date 06/03/2015

Reviewed on 06/02/2015

1 Identification

· Product identifier

· Trade name: ANA Screening Test Pos. Control, Calibrator

Catalog or product number: 200AN, 210AN, 424-0003, 424-0002
 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 | 50-100% |
| | Human Source Material | 2.5-5% |
| | Goat Serum | 2.5-5% |
| 7732-18-5 | water | 35-50% |
| Additional | information | |

· 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

(Contd. on page 2)

DUS

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: ANA Screening Test Pos. Control, Calibrator

(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: 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.

(Contd. on page 3)

DUS

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: ANA Screening Test Pos. Control, Calibrator

| Components with I | (Contd. of page imit values that require monitoring at the workplace: |
|--|---|
| 56-81-5 glycerol | |
| PEL (United States) | 15* 5** mg/m³ *total dust **respirable fraction |
| TLV (United States) | 10* ppm *Mist |
| 26628-22-8 sodium | azide |
| REL (United States) | Short-term value: C 0.3** mg/m³, C 0.1* ppm *as HN3; **as NaN3; Skin |
| TLV (United States) | Short-term value: C 0.29** mg/m³, C 0.11* ppm *as HN3 vapor **as NaN3 |
| Protective gloves. Material of gloves The selection of the | |
| material can not be of Synthetic gloves Penetration time of | calculated in advance and has therefore to be checked prior to the application. |

| · General Information | | |
|---------------------------------|-----------------|-----------------|
| · Appearance: | | |
| Form: | Liquid | |
| Color: | Whitish | |
| · Odor: | Odorless | |
| · Odour threshold: | Not determined. | |
| · pH-value: | Not determined. | |
| · Change in condition | | |
| Melting point/Melting range: | undetermined | |
| Boiling point/Boiling range: | undetermined | |
| · Flash point: | Not applicable | |
| · Flammability (solid, gaseous) | Not applicable. | |
| · Ignition temperature: | 400 °C | |
| · Decomposition temperature: | Not determined. | |
| | | (Contd. on page |

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: ANA Screening Test Pos. Control, Calibrator

| | | (Contd. of page 3 |
|-------------------------------------|---|-------------------|
| · Auto igniting: | Product is not selfigniting. | |
| · Danger of explosion: | Product does not present an explosion hazard. | |
| · Explosion limits: | | |
| Lower: | 0.9 Vol % | |
| 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: | 52.7 % | |
| Water: | 37.7 % | |
| · 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:

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 su

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.

(Contd. on page 5)

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: ANA Screening Test Pos. Control, Calibrator

(Contd. of page 4)

· 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.
- · 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. 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.

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 · UN proper shipping name · DOT, ADR, ADN, IMDG, IATA · DOT, ADR, ADN, IMDG, IATA · Transport hazard class(es) · ADR, ADN, IMDG, IATA · Class Void

Safety Data Sheet acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: ANA Screening Test Pos. Control, Calibrator

| | (Contd. of page 5) |
|--|--|
| · Packing group · DOT, ADR, IMDG, IATA | Void |
| Environmental hazards: Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| Transport in bulk according to Annex II of MA and the IBC Code | RPOL73/78 Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

15 Regulatory information

· SARA (Superfund Amendents 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 (Toxi | ic Substances Control Act): | |
| | 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 | 50-100 |

· 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 (Contd. on page 7)

BIO-RAD Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: ANA Screening Test Pos. Control, Calibrator

(Contd. of page 6)

DUS

· 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.