



06/03/2015

### Kit Components

| Product code   | Description                                      |
|----------------|--|
| <b>1956078</b> | <b>Plasma Catecholamines by HPLC Starter Kit</b> |

Components:

|          |   |
|----------|---|
| 195-6003 | Reverse Phase Micro Guard Refill Cartridge    |
| 195-6035 | UCAT/PCAT by HPLC Internal Standard           |
| 195-6055 | PCATS by HPLC - Acid Washed Alumina           |
| 195-6056 | Plasma Cats by HPLC-Mobile Phase              |
| 195-6066 | Plasma Cats by HPLC-Calibrator                |
| 1956060  | Plasma Catecholamine Tris Buffer              |
| 1956061  | Plasma Catecholamine 2M Phosphoric Acid       |
| 195-6062 | Urinary and Plasma Cats by HPLC-Test Solution |
| 1956063  | Plasma Catecholamines - Sodium Metabisulfite  |
| 195-6079 | PCAT Analytical Column                        |

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 05/14/2015

## 1 Identification

- **Product identifier**
- **Trade name:** Reverse Phase Micro Guard Refill Cartridge
- **Catalog or product number:** 195-6003
- **EC number:**  
231-545-4
- **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:**  
*Silanated amorphous silica, surface treated*
- **Identification number(s):**
- **EC number:** 231-545-4
- **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 substance 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.*

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**Trade name: Reverse Phase Micro Guard Refill Cartridge**

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

**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:** No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**  
No dangerous substances are released.  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**7 Handling and storage**

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

**Silanated amorphous silica, surface treated**

ACGIH (USA, Diagnostic) 10 mg/m<sup>3</sup>

- **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.
- **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.

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**Trade name: Reverse Phase Micro Guard Refill Cartridge**

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· **Eye protection:** Safety glasses

**9 Physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:** Powder

· **Color:** White

· **Odor:** Odorless

· **Odour threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

· **Melting point/Melting range:** >1000 °C

· **Boiling point/Boiling range:** 2230 °C

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Product is not flammable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

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

· **Explosion limits:**

· **Lower:** 72 g/m<sup>3</sup>

· **Upper:** Not determined.

· **Vapor pressure:** Not applicable.

· **Density:** Not determined

· **Relative density** Not determined.

· **Vapour density** Not applicable.

· **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

· **Water:** Fully miscible

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

· **Viscosity:**

· **dynamic:** Not applicable.

· **kinematic:** Not applicable.

· **Organic solvents:** 0.0 %

· **Solids content:** 100.0 %

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

**10 Stability and reactivity**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

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**Trade name: Reverse Phase Micro Guard Refill Cartridge**

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|  |  |
|--|--|
| · <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):**

Substance not listed.

· **Section 313 (40CFR372.65):**

Substance is not listed.

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

Substance is not listed.

**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

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

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**Trade name: Reverse Phase Micro Guard Refill Cartridge**

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NFPA: National Fire Protection Association (USA)

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

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# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015


## 1 Identification

- **Product identifier**
- **Trade name:** UCAT/PCAT by HPLC Internal Standard
- **Catalog or product number:** 195-6035
- **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
- **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**  
Skin Corr. 1A H314 Causes severe skin burns and eye damage.
  - **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
- 

GHS05
- **Signal word** *Danger*
  - **Hazard-determining components of labeling:**  
*hydrochloric acid*
  - **Hazard statements**  
*H314 Causes severe skin burns and eye damage.*

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## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: UCAT/PCAT by HPLC Internal Standard

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- **Precautionary statements**

P260 Do not breathe dusts or mists.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

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

P310 Immediately call a poison center/doctor.

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 = 0

Reactivity = 0

### 4 First-aid measures

- **General information** Immediately remove any clothing soiled by the product.

- **After inhalation** In case of unconsciousness place patient stably in side position for transportation.

- **After skin contact** Immediately wash with water and soap and rinse thoroughly.

- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.

- **After swallowing**

Seek immediate medical advice.

Drink copious amounts of water and provide fresh air. Immediately call a doctor.

### 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 equipment (See section 8). Keep unprotected persons away.

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).

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

- **Reference to other sections**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

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**Safety Data Sheet**  
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Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: UCAT/PCAT by HPLC Internal Standard**

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:** Keep receptacle tightly sealed.
- **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    |
| 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**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **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  
Tightly sealed goggles.

**9 Physical and chemical properties**

- **General Information**
- **Appearance:**
- **Form:** Liquid
- **Color:** Colorless
- **Odor:** Odorless
- **Odour threshold:** Not determined.

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Trade name: UCAT/PCAT by HPLC Internal Standard

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|  |   |
|--|---|
| · pH-value at 20 °C:                       | 1.1   |
| · <b>Change in condition</b>               |   |
| 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. |
| · <b>Explosion limits:</b>                 |   |
| Lower:                                     | Not determined.                               |
| Upper:                                     | Not determined.                               |
| · Vapor pressure at 20 °C:                 | 23 hPa  |
| · Density at 20 °C:                        | 1.011 g/cm <sup>3</sup>                       |
| · Relative density                         | Not determined.                               |
| · Vapour density                           | Not determined.                               |
| · Evaporation rate                         | Not determined.                               |
| · <b>Solubility in / Miscibility with</b>  |   |
| Water:                                     | Fully miscible                                |
| · Partition coefficient (n-octanol/water): | Not determined.                               |
| · <b>Viscosity:</b>                        |   |
| dynamic:                                   | Not determined.                               |
| kinematic:                                 | Not determined.                               |
| · <b>Solvent content:</b>                  |   |
| Organic solvents:                          | 0.0 %   |
| Water:                                     | 99.7 %  |
| · 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:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.

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**Trade name: UCAT/PCAT by HPLC Internal Standard**

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· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

7647-01-0 hydrochloric acid

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:** Skin.

**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:**

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.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

**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.

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**Safety Data Sheet**  
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Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: UCAT/PCAT by HPLC Internal Standard

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**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. |
| · 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

· Section 313 (40CFR372.65):

7647-01-0 hydrochloric acid

· TSCA (Toxic Substances Control Act):

7647-01-0 hydrochloric acid

7732-18-5 water

· 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 / -

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**Safety Data Sheet**  
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Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: UCAT/PCAT by HPLC Internal Standard**

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**· 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)*

*Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A*

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

DUS

# Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 05/27/2015

## 1 Identification

- **Product identifier**
- **Trade name:** PCATS by HPLC - Acid Washed Alumina
- **Catalog or product number:** 195-6055
- **CAS Number:**  
1344-28-1
- **EC number:**  
215-691-6
- **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:**  
*1344-28-1 aluminium oxide*
- **Identification number(s):**
- **EC number:** 215-691-6
- **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 substance 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.*

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

Printing date 06/03/2015

Reviewed on 05/27/2015

**Trade name: PCATS by HPLC - Acid Washed Alumina**

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- **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:** No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**  
No dangerous substances are released.  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

**7 Handling and storage**

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

**1344-28-1 aluminium oxide**

|                     |  |
|---------------------|--|
| PEL (United States) | 15* 5** mg/m <sup>3</sup><br>*total dust **respirable fraction     |
| REL (United States) | Short-term value: 1.5* mg/m <sup>3</sup><br>*as resprable fraction |
| TLV (United States) | (10) mg/m <sup>3</sup><br>(E)                                      |

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

(Contd. on page 3)



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

Printing date 06/03/2015

Reviewed on 05/27/2015

**Trade name: PCATS by HPLC - Acid Washed Alumina**

(Contd. of page 2)

- **Personal protective equipment**
- **General protective and hygienic measures** The usual precautionary measures for handling chemicals should be followed.
- **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:** Solid
- **Color:** White
- **Odor:** Odorless
- **Odour threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

- **Melting point/Melting range:** 2050 °C
- **Boiling point/Boiling range:** > 999 °C

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Product is not flammable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

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

· **Explosion limits:**

- **Lower:** Not determined.
- **Upper:** Not determined.

· **Vapor pressure:** Not applicable.

· **Density at 20 °C:** 3.97 g/cm<sup>3</sup>

- **Bulk density at 20 °C:** 920 kg/m<sup>3</sup>
- **Relative density** Not determined.
- **Vapour density** Not applicable.
- **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

· **Water:** Fully miscible

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

· **Viscosity:**

- **dynamic:** Not applicable.
- **kinematic:** Not applicable.

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

Printing date 06/03/2015

Reviewed on 05/27/2015

**Trade name: PCATS by HPLC - Acid Washed Alumina**

(Contd. of page 3)

**Organic solvents:** 0.0 %

**Solids content:** 100.0 %

**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:**  
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.  
The substance is not subject to classification according to the latest version of the EU lists.

**Carcinogenic categories**

**IARC (International Agency for Research on Cancer)**

Substance is not listed.

**NTP (National Toxicology Program)**

Substance is not listed.

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

Substance is not listed.

· **Target organs:** Not applicable.

**12 Ecological information**

- **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.

(Contd. on page 5)

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

Printing date 06/03/2015

Reviewed on 05/27/2015

**Trade name: PCATS by HPLC - Acid Washed Alumina**

(Contd. of page 4)

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

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

· **UN-Number**

· **DOT, ADR, ADN, IMDG, IATA** Void

· **UN proper shipping name**

· **DOT, ADR, ADN, IMDG, IATA** Void

· **Transport hazard class(es)**

· **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):**

Substance not listed.

· **Section 313 (40CFR372.65):**

Substance is listed.

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

Substance is 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.

(Contd. on page 6)

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

Printing date 06/03/2015

Reviewed on 05/27/2015

**Trade name: PCATS by HPLC - Acid Washed Alumina**

(Contd. of page 5)

**· 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

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 06/03/2015

**1 Identification**

- **Product identifier**
- **Trade name:** Plasma Cats by HPLC-Mobile Phase
- **Catalog or product number:** 195-6056
- **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**

· **Description:** Mixture of the substances listed below with non-hazardous additions.

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

|           |              |         |
|-----------|--------------|---------|
| 7732-18-5 | water        | 50-100% |
| 75-05-8   | acetonitrile | 5-10%   |

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

**3 Hazard(s) identification**

- **Classification of the substance or mixture**  
Flam. Liq. 3 H226 Flammable liquid and vapour.  
Self-react. EF H242 Heating may cause a fire.
- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS02

- **Signal word** Warning
- **Hazard statements**  
H226 Flammable liquid and vapour.  
H242 Heating may cause a fire.
- **Precautionary statements**  
P241 Use explosion-proof electrical/ventilating/lighting/equipment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P240 Ground/bond container and receiving equipment.

(Contd. on page 2)

**Safety Data Sheet**  
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Reviewed on 06/03/2015

**Trade name: Plasma Cats by HPLC-Mobile Phase**

(Contd. of page 1)

P303+P361+P353 *IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

P420 *Store away from other materials.*

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

· **Classification system**

· **NFPA ratings (scale 0-4)**

Health = 0

Fire = 3

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** 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**  
Not required  
Wear protective equipment (See section 8). Keep unprotected persons away.  
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**  
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**  
Use only in well ventilated areas.  
No special measures required.

(Contd. on page 3)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Plasma Cats by HPLC-Mobile Phase**

(Contd. of page 2)

- **Information about protection against explosions and fires:**  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **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:** Keep receptacle tightly sealed.
- **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:**

**75-05-8 acetonitrile**

|                     |                               |
|---------------------|-------------------------------|
| PEL (United States) | 70 mg/m <sup>3</sup> , 40 ppm |
| REL (United States) | 34 mg/m <sup>3</sup> , 20 ppm |
| TLV (United States) | 34 mg/m <sup>3</sup> , 20 ppm |
|                     | Skin                          |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures** Wash hands before breaks and at the end of work.
- **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  
Tightly sealed goggles.
- **Body protection:** Protective work clothing.

**9 Physical and chemical properties**

- **General Information**
- **Appearance:**
  - Form:** Liquid
  - Color:** Whitish
- **Odor:** Ether-like
- **Odour threshold:** Not determined.
- **pH-value at 20 °C:** 6.8
- **Change in condition**
  - Melting point/Melting range:** undetermined
  - Boiling point/Boiling range:** 88 °C

(Contd. on page 4)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

Trade name: *Plasma Cats by HPLC-Mobile Phase*

(Contd. of page 3)

|   |  |
|---|--|
| · <b>Flash point:</b>                             | 21 - 55 °C   |
| · <b>Flammability (solid, gaseous)</b>            | Not applicable.  |
| · <b>Ignition temperature:</b>                    | 525 °C   |
| · <b>Decomposition temperature:</b>               | Not determined.  |
| · <b>Auto igniting:</b>                           | Product is not selfigniting.   |
| · <b>Danger of explosion:</b>                     | Product is not explosive. However, formation of explosive air/vapor mixtures are possible. |
| · <b>Explosion limits:</b>                        |  |
| Lower:  | Not determined.  |
| Upper:  | 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>                               |  |
| dynamic:  | Not determined.  |
| kinematic:  | Not determined.  |
| · <b>Solvent content:</b>                         |  |
| Organic solvents:                                 | 0.0 %  |
| Water:  | 88.9 %   |
| · <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:**
- **LD/LC50 values for hazardous components per OSHA criteria:**

**75-05-8 acetonitrile**

|        |      |                  |
|--------|------|------------------|
| Oral   | LD50 | 2730 mg/kg (rat) |
| Dermal | LD50 | 1250 mg/kg (rbt) |

(Contd. on page 5)



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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Plasma Cats by HPLC-Mobile Phase**

(Contd. of page 4)

- **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:**  
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**  
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, IATA**

UN1993

· **UN proper shipping name**

· **IATA**

Flammable liquid, n.o.s. (acetonitrile solution)

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**Safety Data Sheet**  
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Reviewed on 06/03/2015

**Trade name: Plasma Cats by HPLC-Mobile Phase**

(Contd. of page 5)

|  |  |
|--|--|
| · <b>Transport hazard class(es)</b>  |  |
| · <b>IATA</b>  |  |
| · <b>Class</b>   | 3 Flammable liquids                                  |
| · <b>Packing group</b>   |  |
| · <b>DOT, IATA</b>   | III  |
| · <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. |

**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):**

75-05-8 acetonitrile

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

75-05-8 acetonitrile

7778-77-0 potassium dihydrogenphosphate

77-92-9 citric acid

7732-18-5 water

· **National regulations**

· **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:**

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Plasma Cats by HPLC-Mobile Phase**

(Contd. of page 6)

*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**Flam. Liq. 3: Flammable liquids, Hazard Category 3**Self-react. EF: Self-Reactive Substances and Mixtures, Types E, F***. \* 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:** Plasma Cats by HPLC-Calibrator
- **Catalog or product number:** 195-6066, 195-6059
- **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:**  
*Human Serum, Lyophilized*
- **Identification number(s):**
- **EC number:** 268-338-3
- **Additional information:** *Contains human sourced and/or potentially infectious components.*
- **Description:** *Mixture of the substances listed below with non-hazardous additions.*

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

|           |                     |           |
|-----------|---------------------|-----------|
| 7681-57-4 | disodium disulphite | 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**  
*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 06/03/2015

Trade name: **Plasma Cats by HPLC-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** 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:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Disinfectant effective against agent of concern.
- **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:**

**7681-57-4 disodium disulphite**

REL (United States) 5 mg/m<sup>3</sup>

TLV (United States) 5 mg/m<sup>3</sup>

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

(Contd. on page 3)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Plasma Cats by HPLC-Calibrator**

(Contd. of page 2)

- **Personal protective equipment**
- **General protective and hygienic measures**  
Follow the usual biosafety practices for handling potentially infectious materials.
- **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
- **Body protection:** Protective work clothing.

**9 Physical and chemical properties**

- **General Information**
- **Appearance:**
  - Form: Solid
  - Color: Opaque
- **Odor:** Odorless
- **Odour threshold:** Not determined.
- **pH-value:** Not applicable.
- **Change in condition**
  - Melting point/Melting range: undetermined
  - Boiling point/Boiling range: undetermined
- **Flash point:** Not applicable
- **Flammability (solid, gaseous):** Not determined.
- **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 applicable.
- **Density:** Not determined
- **Relative density:** Not determined.
- **Vapour density:** Not applicable.
- **Evaporation rate:** Not applicable.
- **Solubility in / Miscibility with Water:** Fully miscible
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
  - dynamic: Not applicable.
  - kinematic: Not applicable.

(Contd. on page 4)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Plasma Cats by HPLC-Calibrator**

(Contd. of page 3)

- **Solvent content:**
- Organic solvents:** 0.0 %
- **Solids content:** 0.1 %
- **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.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

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

Printing date 06/03/2015

Reviewed on 06/03/2015

Trade name: *Plasma Cats by HPLC-Calibrator*

(Contd. of page 4)

**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 MARPOL73/78 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):**

None of the ingredients is listed.

· **Section 313 (40CFR372.65):**

None of the ingredients is listed.

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

7681-57-4 disodium disulphite

51-43-4 epinephrine

(Contd. on page 6)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Plasma Cats by HPLC-Calibrator**

(Contd. of page 5)

|           |                        |
|-----------|------------------------|
| 62-31-7   | dopamine hydrochloride |
| 7732-18-5 | water                  |

- **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 05/27/2015

**1 Identification**

- **Product identifier**
- **Trade name:** Plasma Catecholamine Tris Buffer
- **Catalog or product number:** 1956060
- **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**

· **Description:** *Mixture of the substances listed below with non-hazardous additions.*

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

|           |   |          |
|-----------|---|----------|
| 7732-18-5 | water   | 50-100%  |
| 77-86-1   | Tris(hydroxymethyl)aminomethane                         | 5-10%    |
| 1185-53-1 | Tris-HCl  | 2.5-5%   |
| 6381-92-6 | Ethylenediaminetetraacetic acid disodium salt dihydrate | 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 = 1  
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 05/27/2015

Trade name: *Plasma Catecholamine Tris Buffer*

(Contd. of page 1)

- **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.  
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:** Protective gloves.
- **Material of gloves** Synthetic gloves

(Contd. on page 3)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 05/27/2015

**Trade name: Plasma Catecholamine Tris Buffer**

(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:**
  - Form:** Liquid
  - Color:** Colorless
- **Odor:** Odorless
- **Odour threshold:** Not determined.
- **pH-value at 20 °C:** 8.6
- **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 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:** 86.8 %

(Contd. on page 4)

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

Printing date 06/03/2015

Reviewed on 05/27/2015

**Trade name: Plasma Catecholamine Tris Buffer**

(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:** 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:**

**77-86-1 Tris(hydroxymethyl)aminomethane**

Oral LD50 5900 mg/kg (rat)

**1185-53-1 Tris-HCl**

Oral LD50 5900 mg/kg (rat)

· **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.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

(Contd. on page 5)

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

Printing date 06/03/2015

Reviewed on 05/27/2015

**Trade name: Plasma Catecholamine Tris Buffer**

(Contd. of page 4)

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**  
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):**

None of the ingredients is listed.

- **Section 313 (40CFR372.65):**

None of the ingredients is listed.

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

77-86-1 Tris(hydroxymethyl)aminomethane

(Contd. on page 6)

## Safety Data Sheet

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Printing date 06/03/2015

Reviewed on 05/27/2015

**Trade name: Plasma Catecholamine Tris Buffer**

(Contd. of page 5)

|           |          |
|-----------|----------|
| 1185-53-1 | Tris-HCl |
| 7732-18-5 | water    |

- **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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

- **\* 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:** Plasma Catecholamine 2M Phosphoric Acid
- **Catalog or product number:** 1956061
- **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**

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

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

|           |                 |         |
|-----------|-----------------|---------|
| 7732-18-5 | water           | 50-100% |
| 7664-38-2 | phosphoric acid | 10-20%  |

- **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 Corr. 1A H314 Causes severe skin burns and eye damage.  
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**



GHS05

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**  
*phosphoric acid*
- **Hazard statements**  
*H314 Causes severe skin burns and eye damage.*
- **Precautionary statements**  
*P260 Do not breathe dusts or mists.*

(Contd. on page 2)



## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: Plasma Catecholamine 2M Phosphoric Acid**

(Contd. of page 1)

P303+P361+P353 *IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.*

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

P310 *Immediately call a poison center/doctor.*

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 = 0

Reactivity = 0

### 4 First-aid measures

- **General information** *Immediately remove any clothing soiled by the product.*
- **After inhalation** *In case of unconsciousness place patient stably in side position for transportation.*
- **After skin contact** *Immediately wash with water and soap and rinse thoroughly.*
- **After eye contact** *Rinse opened eye for several minutes under running water. Then consult a doctor.*
- **After swallowing** *Drink copious amounts of water and provide fresh air. Immediately call a doctor.*

### 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 equipment (See section 8). Keep unprotected persons away.  
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).  
Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.*
- **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.*

DUS  
(Contd. on page 3)

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

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: *Plasma Catecholamine 2M Phosphoric Acid*

(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:** Keep receptacle tightly sealed.
- **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:**

**7664-38-2 phosphoric acid**

|                     |   |
|---------------------|---|
| PEL (United States) | 1 mg/m <sup>3</sup>   |
| REL (United States) | Short-term value: 3 mg/m <sup>3</sup><br>Long-term value: 1 mg/m <sup>3</sup> |
| TLV (United States) | Short-term value: 3 mg/m <sup>3</sup><br>Long-term value: 1 mg/m <sup>3</sup> |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **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  
Tightly sealed goggles.
- **Body protection:** Acid resistant protective clothing

**9 Physical and chemical properties**

- **General Information**
- **Appearance:**
  - Form:** Liquid
  - Color:** Clear
- **Odor:** Acidic
- **Odour threshold:** Not determined.

(Contd. on page 4)

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

Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: Plasma Catecholamine 2M Phosphoric Acid**

(Contd. of page 3)

|   |   |
|---|---|
| · <b>pH-value at 20 °C:</b>                       | 0.6   |
| · <b>Change in condition</b>                      |   |
| <b>Melting point/Melting range:</b>               | undetermined                                  |
| <b>Boiling point/Boiling range:</b>               | 100 °C  |
| · <b>Flash point:</b>                             | Not applicable                                |
| · <b>Flammability (solid, gaseous)</b>            | Not applicable.                               |
| · <b>Ignition temperature:</b>                    |   |
| <b>Decomposition temperature:</b>                 | Not determined.                               |
| · <b>Auto igniting:</b>                           | Product is not selfigniting.                  |
| · <b>Danger of explosion:</b>                     | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                        |   |
| <b>Lower:</b>                                     | Not determined.                               |
| <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>                          | 0.0 %   |
| <b>Water:</b>                                     | 85.2 %  |
| · <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:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

**11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:**  
Strong caustic effect on skin and mucous membranes.

(Contd. on page 5)

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

Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: Plasma Catecholamine 2M Phosphoric Acid**

(Contd. of page 4)

Caustic effect on skin and mucous membranes.

· **on the eye:**

Strong caustic effect.

Irritant effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Corrosive

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

· **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:** Skin.

**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:**

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

**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.

DUS

(Contd. on page 6)

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

Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: Plasma Catecholamine 2M Phosphoric Acid**

(Contd. of page 5)

**14 Transport information**

|  |                                   |
|--|-----------------------------------|
| · <b>UN-Number</b><br>· <b>DOT, IATA</b>   | UN1805                            |
| · <b>UN proper shipping name</b><br>· <b>IATA</b>                                | Phosphoric acid, liquid, solution |
| · <b>Transport hazard class(es)</b><br>· <b>IATA</b><br>· <b>Class</b>           | 8 Corrosive substances            |
| · <b>Packing group</b><br>· <b>DOT, IATA</b>                                     | III                               |
| · <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.                   |

**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.

**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:**

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)

(Contd. on page 7)



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

Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: Plasma Catecholamine 2M Phosphoric Acid**

(Contd. of page 6)

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A  
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A  
· \* **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:** Urinary and Plasma Cats by HPLC-Test Solution
- **Catalog or product number:** 195-6062
- **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
- **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**  
Skin Corr. 1A H314 Causes severe skin burns and eye damage.
  - **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
- 

GHS05
- **Signal word** *Danger*
  - **Hazard-determining components of labeling:**  
*hydrochloric acid*
  - **Hazard statements**  
*H314 Causes severe skin burns and eye damage.*

(Contd. on page 2)

DUS

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Urinary and Plasma Cats by HPLC-Test Solution**

(Contd. of page 1)

### · **Precautionary statements**

- P260 Do not breathe dusts or mists.  
 P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a poison center/doctor.  
 P321 Specific treatment (see on this label).  
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

## 4 First-aid measures

- **General information** Immediately remove any clothing soiled by the product.
- **After inhalation** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing** Drink copious amounts of water and provide fresh air. Immediately call a doctor.

## 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 equipment (See section 8). Keep unprotected persons away.  
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).  
Use neutralizing agent.  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **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.

(Contd. on page 3)



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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Urinary and Plasma Cats by HPLC-Test Solution**

(Contd. of page 2)

- **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:** Keep receptacle tightly sealed.
- **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    |
| 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**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes and skin.
- **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  
Tightly sealed goggles.

**9 Physical and chemical properties**

- **General Information**
- **Appearance:**

|                         |                 |
|-------------------------|-----------------|
| <b>Form:</b>            | Liquid          |
| <b>Color:</b>           | Colorless       |
| <b>Odor:</b>            | Odorless        |
| <b>Odour threshold:</b> | Not determined. |
- **pH-value at 20 °C:** 1.1
- **Change in condition**

|                                     |        |
|-------------------------------------|--------|
| <b>Melting point/Melting range:</b> | 0 °C   |
| <b>Boiling point/Boiling range:</b> | 100 °C |
- **Flash point:** Not applicable
- **Flammability (solid, gaseous)** Not applicable.

(Contd. on page 4)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Urinary and Plasma Cats by HPLC-Test Solution**

(Contd. of page 3)

|   |   |
|---|---|
| · <b>Ignition temperature:</b>                    |   |
| · <b>Decomposition temperature:</b>               | Not determined.                               |
| · <b>Auto igniting:</b>                           | Product is not selfigniting.                  |
| · <b>Danger of explosion:</b>                     | Product does not present an explosion hazard. |
| · <b>Explosion limits:</b>                        |   |
| Lower:  | Not determined.                               |
| Upper:  | Not determined.                               |
| · <b>Vapor pressure at 20 °C:</b>                 | 23 hPa  |
| · <b>Density at 20 °C:</b>                        | 1 g/cm <sup>3</sup>                           |
| · <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>                               |   |
| dynamic:  | Not determined.                               |
| kinematic:  | Not determined.                               |
| · <b>Solvent content:</b>                         |   |
| Organic solvents:                                 | 0.0 %   |
| Water:  | 99.7 %  |
| · <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:** Caustic effect on skin and mucous membranes.
- **on the eye:** Strong caustic effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:  
Corrosive  
Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

(Contd. on page 5)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Urinary and Plasma Cats by HPLC-Test Solution**

(Contd. of page 4)

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

7647-01-0 hydrochloric acid

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:** Skin.

**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.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.

**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

(Contd. on page 6)

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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Urinary and Plasma Cats by HPLC-Test Solution**

(Contd. of page 5)

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

**15 Regulatory information**

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

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

7647-01-0 hydrochloric acid

- **Section 313 (40CFR372.65):**

7647-01-0 hydrochloric acid

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

7647-01-0 hydrochloric acid

62-31-7 dopamine hydrochloride

51-43-4 epinephrine

7732-18-5 water

- **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 / -

- **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)

(Contd. on page 7)



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

Printing date 06/03/2015

Reviewed on 06/03/2015

**Trade name: Urinary and Plasma Cats by HPLC-Test Solution**

(Contd. of page 6)

Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A

. \* **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:** Plasma Catecholamines - Sodium Metabisulfite
- **Catalog or product number:** 1956063
- **CAS Number:**  
7681-57-4
- **EC number:**  
231-673-0
- **Index number:**  
016-063-00-2
- **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:**  
*7681-57-4 disodium disulphite*
- **Identification number(s):**
- **EC number:** 231-673-0
- **Index number:** 016-063-00-2
- **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 H302 Harmful if swallowed.  
Acute Tox. 3 H331 Toxic if inhaled.  
Eye Dam. 1 H318 Causes serious eye damage.*
- **Label elements**
- **GHS label elements** *The substance is classified and labeled according to the Globally Harmonized System (GHS).*
- **Hazard pictograms**



GHS05 GHS06

(Contd. on page 2)

DUS

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: **Plasma Catecholamines - Sodium Metabisulfite**

(Contd. of page 1)

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**  
*disodium disulphite*
- **Hazard statements**  
*H302 Harmful if swallowed.*  
*H331 Toxic if inhaled.*  
*H318 Causes serious eye damage.*
- **Precautionary statements**  
*P261 Avoid breathing dust/fume/gas/mist/vapors/spray*  
*P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*  
*P310 Immediately call a poison center/doctor.*  
*P321 Specific treatment (see on this label).*  
*P405 Store locked up.*  
*P501 Dispose of contents/container in accordance with local/regional/national/international regulations.*
- **Emergency overview:**
- **Routes of exposure:** *Ingestion*
- **Classification system**
- **NFPA ratings (scale 0-4)**  
*Health = 2*  
*Fire = 0*  
*Reactivity = 0*

### 4 First-aid measures

- **General information**  
*Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.*
- **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. Then consult a doctor.*
- **After swallowing**  
*Rinse out mouth and then drink plenty of water.*  
*Seek medical treatment.*  
*Immediately call a doctor.*

### 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:**  
*Mount respiratory protective device.*  
*Wear self-contained respiratory protective device.*

DUS

(Contd. on page 3)

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

Printing date 06/03/2015

Reviewed on 06/02/2015

Trade name: *Plasma Catecholamines - Sodium Metabisulfite*

(Contd. of page 2)

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
Wear protective clothing.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Dispose contaminated material as waste according to item 13.
- **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 precautions are necessary if used correctly.
- **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:** Do not store together with acids.
- **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:**

**7681-57-4 disodium disulphite**

REL (United States) 5 mg/m<sup>3</sup>

TLV (United States) 5 mg/m<sup>3</sup>

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the skin.  
Avoid contact with the eyes.
- **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

(Contd. on page 4)



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

Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: Plasma Catecholamines - Sodium Metabisulfite**

Tightly sealed goggles.

(Contd. of page 3)

**9 Physical and chemical properties**

· **General Information**

· **Appearance:**

· **Form:** Solid  
 · **Color:** Yellow  
 · **Odor:** sulphurous  
 · **Odour threshold:** Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

· **Melting point/Melting range:** undetermined  
 · **Boiling point/Boiling range:** undetermined

· **Flash point:** Not applicable

· **Flammability (solid, gaseous)** Product is not flammable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Not determined.

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

· **Explosion limits:**

· **Lower:** Not determined.  
 · **Upper:** Not determined.

· **Vapor pressure:** Not applicable.

· **Density at 20 °C:** 1.2 g/cm<sup>3</sup>  
 · **Relative density** Not determined.  
 · **Vapour density** Not applicable.  
 · **Evaporation rate** Not applicable.

· **Solubility in / Miscibility with**

· **Water:** Fully miscible

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

· **Viscosity:**

· **dynamic:** Not applicable.  
 · **kinematic:** Not applicable.  
 · **Organic solvents:** 0.0 %

· **Solids content:** 100.0 %

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

**10 Stability and reactivity**

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

(Contd. on page 5)

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

Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: Plasma Catecholamines - Sodium Metabisulfite**

(Contd. of page 4)

- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** Sulfur dioxide

**11 Toxicological information**

- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:**  
Strong caustic effect.  
Strong irritant with the danger of severe eye injury.  
Irritant effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
- **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

Substance is not listed.

· **NTP (National Toxicology Program)**

Substance is not listed.

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

Substance is not listed.

- **Target organs:** Eye.

**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:**  
Water hazard class 1 (German Regulation) (Assessment by list): 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.

(Contd. on page 6)

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

Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: Plasma Catecholamines - Sodium Metabisulfite**

(Contd. of page 5)

· **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>UN "Model Regulation":</b>  | -               |

**15 Regulatory information**

- **SARA (Superfund Amendments and Reauthorization Act of 1986 - USA)**
- **Section 302/304 (40CFR355.30 / 40CFR355.40):**  
Substance not listed.
- **Section 313 (40CFR372.65):**  
Substance is not listed.
- **TSCA (Toxic Substances Control Act):**  
Substance is listed.
- **National regulations**
- **Water hazard class:** Water hazard class 1 (Assessment by list): 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:**

(Contd. on page 7)

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

Printing date 06/03/2015

Reviewed on 06/02/2015

**Trade name: Plasma Catecholamines - Sodium Metabisulfite**

(Contd. of page 6)

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

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

NFPA: National Fire Protection Association (USA)

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 3: Acute toxicity, Hazard Category 3

Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1

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

DUS

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 05/14/2015

### 1 Identification

- **Product identifier**
- **Trade name:** PCAT Analytical Column
- **Catalog or product number:** 195-6079
- **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:**  
7631-86-9 silicon dioxide, chemically prepared
- **Identification number(s):**
- **EC number:** 231-545-4
- **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 = 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)

DUS

## Safety Data Sheet

acc. to OSHA HCS

Printing date 06/03/2015

Reviewed on 05/14/2015

Trade name: PCAT Analytical Column

(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:** No special measures required.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections**  
No dangerous substances are released.  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

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

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 · **Eye protection:** Safety glasses

### 9 Physical and chemical properties

 · **General Information**

 · **Appearance:**

Form: Powder

Color: White

 · **Odor:** Odorless

 · **Odour threshold:** Not determined.

 · **pH-value:** Not applicable.

 · **Change in condition**

Melting point/Melting range: 1700 °C

Boiling point/Boiling range: 2230 °C

 · **Flash point:** Not applicable

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

 · **Ignition temperature:** >370 °C

 · **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 applicable.

 · **Density at 20 °C:** 1.9 g/cm<sup>3</sup>

 · **Relative density** Not determined.

 · **Vapour density** Not applicable.

 · **Evaporation rate** Not applicable.

 · **Solubility in / Miscibility with**

Water: Fully miscible

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

 · **Viscosity:**

dynamic: Not applicable.

kinematic: Not applicable.

 · **Solvent content:**

Organic solvents: 0.0 %

Water: 5.0 %

Solids content: 100.0 %

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

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**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:**

**7631-86-9 silicon dioxide, chemically prepared**

Oral LD50 10000 mg/kg (rat)

· **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)**

7631-86-9 silicon dioxide, chemically prepared

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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**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

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

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

· **UN-Number**

· **DOT, ADR, ADN, IMDG, IATA** Void

· **UN proper shipping name**

· **DOT, ADR, ADN, IMDG, IATA** Void

· **Transport hazard class(es)**

· **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):**

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.

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**· 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

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

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