



28.03.2017

**Kit Components**

Product code	Description
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<b>5325040</b> <b>5325036</b> <b>5325037</b>	<b>Quantase Neonatal Accessory Kit(s)</b>
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Components:

5325035	Elution Buffer
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# Safety Data Sheet

acc. to OSHA HCS


Printing date 28.03.2017

Reviewed on 28.07.2015

## 1 Identification

- **Product identifier**
- **Trade name:** Elution Buffer
- **Catalog or product number:** 5325035
- **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 Hazard(s) identification

- **Classification of the substance or mixture**  
Skin Corr. 1A H314 Causes severe skin burns and eye damage.  
Eye Dam. 1 H318 Causes serious eye damage.  
Carc. 2 H351 Suspected of causing cancer.  
STOT SE 3 H335 May cause respiratory irritation.
- **Label elements**
- **GHS label elements** *The product is classified and labeled according to the Globally Harmonized System (GHS).*
- **Hazard pictograms**  


GHS05 GHS07 GHS08
- **Signal word** *Danger*
- **Hazard-determining components of labeling:**  
*trichloroacetic acid*
- **Hazard statements**  
H314 Causes severe skin burns and eye damage.  
H351 Suspected of causing cancer.  
H335 May cause respiratory irritation.
- **Precautionary statements**  
P260 Do not breathe dusts or mists.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 If on skin (or hair): 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.  
P311 Call a POISON CENTER/doctor.  
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

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

**3 Composition/information on ingredients**

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

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

76-03-9	trichloroacetic acid	Carc. 2, H351 Skin Corr. 1A, H314	20-35%
7732-18-5	water		50-100%

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

**4 First-aid measures**

- **Description of first aid measures**
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** Induce vomiting and call for medical help.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed** No further relevant information available.

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents**  
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Wear protective clothing.
- **Environmental precautions:**  
Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **Reference to other sections**  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

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**7 Handling and storage**

- **Handling**
- **Precautions for safe handling** No special measures required.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** According to product specification
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

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

· **Control parameters**

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

**76-03-9 trichloroacetic acid**

REL (United States)	Long-term value: 7 mg/m <sup>3</sup> , 1 ppm
TLV (United States)	Long-term value: 3.34 mg/m <sup>3</sup> , 0.5 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures** The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves.
- **Material of gloves** Synthetic gloves
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses

**9 Physical and chemical properties**

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

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

· **pH-value at 20 °C:** < 1

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· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	<i>undetermined</i>
<b>Boiling point/Boiling range:</b>	<i>100 °C</i>
· <b>Flash point:</b>	<i>Not applicable</i>
· <b>Flammability (solid, gaseous)</b>	<i>Not applicable.</i>
· <b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	<i>Not determined.</i>
· <b>Auto igniting:</b>	<i>Product is not selfigniting.</i>
· <b>Danger of explosion:</b>	<i>Product does not present an explosion hazard.</i>
· <b>Explosion limits:</b>	
<b>Lower:</b>	<i>Not determined.</i>
<b>Upper:</b>	<i>Not determined.</i>
· <b>Vapor pressure at 20 °C:</b>	<i>23 hPa</i>
· <b>Density at 20 °C:</b>	<i>1.14455 g/cm<sup>3</sup></i>
· <b>Relative density</b>	<i>Not determined.</i>
· <b>Vapor density</b>	<i>Not determined.</i>
· <b>Evaporation rate</b>	<i>Not determined.</i>
· <b>Solubility in / Miscibility with Water:</b>	<i>Fully miscible</i>
· <b>Partition coefficient (n-octanol/water):</b>	<i>Not determined.</i>
· <b>Viscosity:</b>	
<b>dynamic:</b>	<i>Not determined.</i>
<b>kinematic:</b>	<i>Not determined.</i>
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	<i>0.0 %</i>
<b>Water:</b>	<i>67.0 %</i>
· <b>Other information</b>	<i>No further relevant information available.</i>

**10 Stability and reactivity**

- **Reactivity** *No further relevant information available.*
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** *No decomposition if used according to specifications.*
- **Possibility of hazardous reactions** *No dangerous reactions known*
- **Conditions to avoid** *No further relevant information available.*
- **Incompatible materials:** *No further relevant information available.*
- **Hazardous decomposition products:** *No dangerous decomposition products known*

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**11 Toxicological information**

· **Information on toxicological effects**

· **Acute toxicity:**

· **Primary irritant effect:**

· **on the skin:** Strong caustic effect on skin and mucous membranes.

· **on the eye:** Strong caustic 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)**

76-03-9 trichloroacetic acid

2B

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **Target organs:** Not applicable.

**12 Ecological information**

· **Toxicity**

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

· **Persistence and degradability** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 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.

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.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

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

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**13 Disposal considerations**

- **Waste treatment methods**
- **Recommendation** *Dispose of waste in accordance to applicable national, regional, or local regulations.*
- **Uncleaned packagings:**
- **Recommendation:** *Disposal must be made according to official regulations.*
- **Recommended cleansing agent:** *Water, if necessary with cleansing agents.*

**14 Transport information**

· <b>UN-Number</b>	
· <b>DOT, ADR, IMDG, IATA</b>	UN2564
· <b>UN proper shipping name</b>	
· <b>DOT, IMDG, IATA</b>	TRICHLOROACETIC ACID SOLUTION
· <b>ADR</b>	2564 TRICHLOROACETIC ACID SOLUTION
· <b>Transport hazard class(es)</b>	
· <b>DOT, ADR, IMDG, IATA</b>	
· <b>Class</b>	8 Corrosive substances
· <b>Label</b>	8
· <b>Packing group</b>	
· <b>DOT, ADR, IMDG, IATA</b>	II
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	No
· <b>Special precautions for user</b>	Warning: Corrosive substances
· <b>Danger code (Kemler):</b>	80
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	Acids
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· <b>IMDG</b>	
· <b>Limited quantities (LQ)</b>	1L
· <b>Excepted quantities (EQ)</b>	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml

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· **UN "Model Regulation":** UN2564, Trichloroacetic acid, solution, ENVIRONMENTALLY HAZARDOUS, 8, II

**15 Regulatory information**

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

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

None of the ingredients is listed.

· **Section 313 (40CFR372.65):**

None of the ingredients is listed.

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

All ingred. are listed.

· **California Proposition 65:**

· **Chemicals known to cause cancer:**

76-03-9 trichloroacetic acid

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

76-03-9 trichloroacetic acid

SC

· **TLV (Threshold Limit Value established by ACGIH)**

76-03-9 trichloroacetic acid

A3

· **National regulations**

- **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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

· **Contact:**

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

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

· **Date of preparation / last revision** 28.03.2017 / -

· **Abbreviations and acronyms:**

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

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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CAS: Chemical Abstracts Service (division of the American Chemical Society)  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
OSHA: Occupational Safety & Health  
Skin Corr. 1A: Skin corrosion/irritation – Category 1A  
Eye Dam. 1: Serious eye damage/eye irritation – Category 1  
Carc. 2: Carcinogenicity – Category 2  
Carc. 2: Carcinogenicity – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

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

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