



# Material Safety Data Sheet

(Prepared according to 1907/2006/EC, Article 31)

Revision Date: 17-April-2014

## 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

### 1.1 Product Details:

Trade Name: **Tris-Borate-EDTA Buffer**

Catalog Number	Size
<b>BR0030</b>	1 L (10x)

### 1.2 Company Details:

Canvax Biotech SL  
Parque Científico-Tecnológico "Rabanales 21"  
C/Astronoma Cecilia Payne,  
Edif. Canvax  
14014, Cordoba, SPAIN  
TEL.:(+) 34957 348066  
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### 1.3 Toxicological Information Service:

Emergency phone number: 112

*For Research use only*

## 2. CHEMICAL CHARACTERISATION

Substance	CAS-no	EC-no	Weight %	Classification according to Regulation (EG) no 1272/2008 (CLP)*
Tris (hydroxymethyl) aminomethane	77-86-1	201-064-4	60-70	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Boric acid	10043-35-3	233-139-2	30-40	Repr. 1B, H360FD
EDTA (Ethylenediaminetetraacetic acid)	60-00-4	200-449-4	0-5	Eye Irrit. 2, H319

\*See section 15 for the full text of the H-statements mentioned in this section.



## 3. HAZARDS IDENTIFICATION

### 3.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)

Classified as: Skin irritant (Category 2), H315

Eye irritation (Category 2), H319

Reproductive toxicity (Category 1B), H335

Specific target organ toxicity - single exposure (Category 3), H360FD

#### Labelling according to Regulation (EC) No 1272/2008 (EU-GHS/CLP)



Signal word: Danger

#### Hazard statements (s)

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H360FD May damage fertility. May damage the unborn child.

#### Precautionary statement(s)

P201 Obtain special instructions before use

P261 Avoid breathing dust/ fume/ gas/ mist/ vapours /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.

P308+P313 If exposed or concerned: Get medical advice/ attention.

Complementary hazard information: No data available

### 3.3 Other hazards

No data available

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

#### If swallowed

Consult a physician. Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice.

**If inhaled**

Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash immediately with plenty of water and soap. Remove and wash contaminated clothing before reuse.

**In case of eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult a physician.

**General advice**

Consult a physician. Show this safety data sheet to the doctor in attendance.

**4.2 Most important symptoms and effects, both acute and delayed**

Toxicity reported for borates in humans: ingestion or absorption can cause nausea, vomiting, diarrhea, cramping in the abdomen, blushing changes on the skin and mucous membranes. Other symptoms include: circulatory collapse, tachycardia, cyanosis, delirium, convulsions and coma. Deaths have been reported to occur in children from doses less than 5 gr, and in adults from 5 to 20 grams. As far as we know, the chemical, physical, and toxicological properties have not been completely explored.

**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

## 5. FIRE-FIGHTING MEASURES

**5.1 Extinguishing media****Suitable extinguishing media**

Use water fog, alcohol-resistant foam, carbon dioxide or dry chemical.

**5.2 Specific hazards arising from the substance or mixture**

Carbon oxides, nitrogen oxides, boran/borone oxides

**5.3 Advice for fire fighters**

Wear self-contained breathing apparatus if necessary.

**5.4 Further information**

No data available



## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Wear personal protective equipment. Do not breathe vapour/mist/gas. Avoid dust formation.  
Evacuate personnel to safe areas.

### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let products enter drains.

### 6.3 Methods and materials for containment and cleaning up

Pick up and arrange the disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal

### 6.4 Reference to other sections

For disposal, see section 13.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Avoid exposure. Obtain special instructions before use. Avoid dust and aerosol formation. Provide appropriate local exhaust ventilation where dust can be formed. Avoid contact with skin, eyes and clothing. Wash your hands before and after use.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in a cool place. Keep container tightly closed in a dry and well-ventilated place.

### 7.3 Specific end uses

No data available.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Control parameters

No data available

### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the workday.

#### Personal protective equipment

#### Eye protection/face protection

Safety glasses with side shields complying with EN166. Use eye protection tested and approved in accordance with the applicable standard, such as NIOSH (US) or 166 (EU).



## **Skin protection**

Handle with gloves. Gloves must be inspected prior to use. Use the appropriate glove removal technique (without touching the outside of the glove) to avoid skin contact with this product. Dispose contaminated gloves after use in accordance with current legislation and good laboratory practice. Wash and dry your hands. The selected protective gloves must meet the requirements of safety gloves EU Directive 89/686/EEC and EN 374 derived from it.

## **Body protection**

Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

## **Respiratory protection**

Where risk assessment shows that air purifying face protection is appropriate, use a full-face, particle filters type N100 (United States) or type P3 (143) with cartridge as a backup to the machine control. If the gas mask is the only means, use a full-face with clean air connection. Use respiratory protective devices and equipment tested and approved by the appropriate regulatory standards such as NIOSH (US) or CEN (EUROPE).

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

### **9.1 Information on basic physical and chemical properties**

Appearance Form: powder

Odour: no data available

Odour Threshold: no data available

pH: no data available

Melting point/freezing point: no data available

Initial boiling point and boiling range: no data available

Flash point: no data available

Evaporation rate: no data available

Flammability (solid/gas): no data available

Upper/lower flammability or explosive limits: no data available

Vapour pressure: no data available

Vapour density: no data available

Relative density: no data available

Water solubility soluble

Partition coefficient: n-octanol/water: no data available

Autoignition temperature: no data available

Decomposition temperature: no data available

Viscosity: no data available

Explosive properties: no data available

Oxidizing properties: no data available

### **9.2 Other safety information**

No data available.



## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No data available.

### 10.2 Chemical stability

Stable under recommended storage conditions

### 10.3 Possibility of hazardous reactions

No data available.

### 10.4 Conditions to avoid

No data available.

### 10.5 Incompatible materials

Strong oxidizing substances potassium, acid anhydrides

### 10.6 Hazardous decomposition products

No data available.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### 11.1.2 Mixtures

#### Acute toxicity

No data available

#### Skin corrosion/irritation

No data available

#### Serious eye damage/eye irritation

No data available

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

No data available

#### Carcinogenicity

No data available

#### Reproductive toxicity

No data available

#### Specific target organ toxicity – single exposure

No data available

**Specific target organ toxicity – repeated exposure**

No data available

**Aspiration hazard**

No data available

**Potential health effects**

Eyes Causes serious eye irritation.

Inhalation May be harmful if inhaled. Causes respiratory tract irritation.

Skin May be harmful if absorbed through skin. Causes skin irritation.

Ingestion May be harmful if swallowed

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

No data available

### 12.2 Persistence and degradability

No data available

### 12.3 Bioaccumulative potential

Not bioaccumulate

### 12.4 Mobility in soil

No data available

### 12.5 Result from PBT- and vPvB-assessment

No data available

### 12.6 Other adverse effects

Harmful to aquatic life

Water flea Daphnia: LC50 = 115.0-153.0 mg/L; 48 Hr.; Static Condition

Fish: Rainbow trout: LC50=150mg B/L; 24-day

Fish: Goldfish: LC50=46mg B/L; 7-day

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Disposal shall take place in accordance with applicable regional, national and local laws and regulations. Offer surplus and nonrecyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. See section 7: handling and storage and section 8: exposure controls/personal protection for further management of information and the protection of employees.

**Contaminated packaging**

Dispose of as unused product

**14. TRANSPORT INFORMATION****14.1 UN-number**

ADR-RID, IMDG, IATA: -

**14.2 UN proper shipping name**

ADR-RID, IMDG, IATA: Not dangerous goods

**14.3 Transport hazard class(es)**

ADR-RID, IMDG, IATA: -

**14.4 Packing group**

ADR-RID, IMDG, IATA: -

**14.5 Environmental hazards**

ADR-RID: No

IMDG, water pollutant: No

IATA: No

**14.6 Special precautions for user**

No data available

**14.7 Transport in bulk according to annex II of MARPOL 73/78 and the IBC Code**

No data available

**15. OTHER INFORMATION****15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

No data available

**15.2 Chemical Safety Assessment**

No data available

This information is based on the current state of knowledge.

**Text of H-phrases mentioned in section 2**

Skin Irrit. 2 Skin irritation (Category 2)

Eye Irrit. 2 Eye irritation (Category 2)

STOT SE 3 Specific target organ toxicity –single exposure (Category 2)

Repr. 1B Reproductive toxicity (Category 2)

H315 Causes skin irritation

H319 Causes serious eye irritation

H335 May cause respiratory irritation

H360FD May damage fertility. May damage the unborn child.