

## Material Safety Data Sheet According to 91/155 EEC

Printing date 02.04.2007

version number 10

Reviewed on 02.04.2007

### 1 Identification of the substance/preparation and of the company/undertaking

\***Trade name:** BERYLLIUM ICP STD SOLUTION

\***Article number:** PBE2B2

\***Application of the substance / the preparation** Laboratory chemicals

\***Manufacturer/Supplier:**

Reagecon Diagnostics Ltd.  
Shannon Free Zone,  
Shannon,  
Co. Clare,  
IRL.

Tel +353 61 472622

Fax +353 61 472642

\***Further information obtainable from:** EMERGENCY CONTACT NUMBER :- 353-87-7828692

### 2 Composition/information on ingredients

\***Chemical characterization**

\***Description:** Mixture of substances listed below with nonhazardous additions.

\***Dangerous components:**

CAS: 7697-37-2 EINECS: 231-714-2	nitric acid	 C, O; R 8-35	≤ 2.5%
CAS: 7440-41-7 EINECS: 231-150-7	beryllium	 T+, Xi; R 49-25-26-36/37/38-43-48/23	≤ 2.5%

\***Additional information:** For the wording of the listed risk phrases refer to section 16.

### 3 Hazards identification

\***Hazard description:**



T Toxic

\***Information concerning to particular hazards to man and environment:**

The product has been classified and labelled in accordance with EU Directive 99/45/EC and all other EU Directives referred to therein.

R 49 May cause cancer by inhalation.

R 20 Harmful by inhalation.

R 36/38 Irritating to eyes and skin.

\***Classification system:**

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

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### 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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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. If symptoms persist, consult a doctor.

**\*After swallowing:** If symptoms persist consult doctor.

### 5 Fire-fighting measures

**\*Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**\*Protective equipment:** Mount respiratory protective device.

### 6 Accidental release measures

**\*Person-related safety precautions:** Not required.**\*Measures for environmental protection:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

**\*Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

### 7 Handling and storage

**\*Handling:PPE to be worn. See section 8****\*Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

**\*Information about fire - and explosion protection:** Keep respiratory protective device available.**\*Storage:****\*Requirements to be met by storerooms and receptacles:** No special requirements.**\*Information about storage in one common storage facility:** Not required.**\*Further information about storage conditions:** Keep receptacle tightly sealed.

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### 8 Exposure controls/personal protection

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

**\*Ingredients with limit values that require monitoring at the workplace:**

**7697-37-2 nitric acid**

OELV (Ireland)	Short-term value: 10 mg/m <sup>3</sup> , 4 ppm Long-term value: 5 mg/m <sup>3</sup> , 2 ppm
PEL (USA)	5 mg/m <sup>3</sup> , 2 ppm
REL (USA)	Short-term value: 10 mg/m <sup>3</sup> , 4 ppm Long-term value: 5 mg/m <sup>3</sup> , 2 ppm
TLV (USA)	Short-term value: 10 mg/m <sup>3</sup> , 4 ppm Long-term value: 5.2 mg/m <sup>3</sup> , 2 ppm
IOELV (European Union)	Short-term value: 2.6 mg/m <sup>3</sup> , 1 ppm

**7440-41-7 beryllium**

OELV (Ireland)	0.002 mg/m <sup>3</sup> C2
PEL (USA)	Short-term value: C 0.005; 0.025* mg/m <sup>3</sup> Long-term value: 0.002 mg/m <sup>3</sup> as Be; *30 min peak per 8-hr shift
REL (USA)	Short-term value: C 0.0005 mg/m <sup>3</sup> as Be
TLV (USA)	Short-term value: (0.01) NIC-0.0002 I mg/m <sup>3</sup> Long-term value: (0.002) NIC-0.00005 I mg/m <sup>3</sup> as Be; NIC-SEN; Skin

**\*Additional information:** The lists valid during the making 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.
- Store protective clothing separately.
- Avoid contact with the eyes and skin.

**\*Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**\*Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**\*Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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**\*Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**\*Eye protection:**



Tightly sealed goggles

### 9 Physical and chemical properties

**\*General Information**

<b>Form:</b>	Liquid
<b>Colour:</b>	According to product specification
<b>Odour:</b>	Characteristic

**\*Change in condition**

**Melting point/Melting range:** 0°C  
**Boiling point/Boiling range:** 100°C

**\*Flash point:** Not applicable.

**\*Self-igniting:** Product is not selfigniting.

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

**\*Density at 20°C:** 1.02600 g/cm<sup>3</sup>

**\*Solubility/ miscibility with water:** Fully miscible.

**\*Solvent content:**  
**Organic solvents:** 0.0 %

### 10 Stability and reactivity

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

**\*Dangerous reactions** No dangerous reactions known.

**\*Dangerous decomposition products:** No dangerous decomposition products known.

### 11 Toxicological information

**\*Acute toxicity:**

**\*Primary irritant effect:**

**\*on the skin:** Irritant to skin and mucous membranes.

**\*on the eye:** Irritating effect.

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

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**\*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:

Harmful

Irritant

Carcinogenic if inhaled.

### 12 Ecological information

**\*General notes:**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

### 13 Disposal considerations

**\*Product:**

**\*Recommendation**

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

**\*Uncleaned packaging:**

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

**\*Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### 14 Transport information

**\*Land transport ADR/RID (cross-border)**

**\*ADR/RID class:** -

**\*Maritime transport IMDG:**

**\*Marine pollutant:** No

**\*Transport/Additional information:** Not dangerous according to the above specifications.

### 15 Regulatory information

**\*Labelling according to EU guidelines:**

The product has been classified and marked in accordance with EU Directive 99/45/EC and all other EU Directives referred to therein.

**\*Code letter and hazard designation of product:**



T Toxic

**\*Hazard-determining components of labelling:**

beryllium

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**\*Risk phrases:**

- 49 May cause cancer by inhalation.
- 20 Harmful by inhalation.
- 36/38 Irritating to eyes and skin.

**\*Safety phrases:**

- 53 Avoid exposure - obtain special instructions before use.
- 9 Keep container in a well-ventilated place.
- 20 When using do not eat or drink.
- 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- 60 This material and its container must be disposed of as hazardous waste.

**\*Special labelling of certain preparations:**

Contains beryllium. May produce an allergic reaction.

**\*National regulations:**

**\*Waterhazard 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 MSDS:** Safety Officer

**\*Contact:** Mr. Sean Murphy

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