

Emergency Phone Number (24 hours) CHEMTREC (800-424-9300)  
Outside US: 703-527-3887

**SECTION 1**  
**CHEMICAL IDENTIFICATION**

**NAME:** Plasma Standard- This solution is composed of one of the following depending on the catalog number:

10,000 ppm of Beryllium in 5% Nitric Acid - PLBE2-3X, PLBE2-3Y

1,000 ppm of Beryllium in 2% Nitric Acid - PLBE2-2X, PLBE2-2T

1,000 ppm of Beryllium in 2% Nitric Acid - PLBE2-2Y, CLBE2-2Y

**CHEMICAL FAMILY:** Dilute acid solution

**COMMON NAME OR SYNONYMS:** None

**SPEX CERTIPREP CATALOG NUMBER:** PLBE2- 2Y, PLBE2- 2X  
PLBE2-2T, PLBE2-3Y, PLBE2-3X, CLBE2-2Y

Manufacturer/Supplier  
SPEX CERTIPREP  
203 Norcross Avenue  
Metuchen, NJ 08840

SPEX CERTIPREP LTD  
2 Dalston Gardens  
Stanmore, Middlesex HA7 1BQ  
England  
Tel: (0) 20 8204 6656

**SECTION 2**  
**COMPOSITION/INFORMATION ON INGREDIENTS**

**HAZARDOUS:**

MATERIAL	%	TLV UNITS	CAS #	EINECS
HNO <sub>3</sub>	~2-5	5 mg/m <sup>3</sup>	[7697-37-2]	(231-714-2)
Be <sub>4</sub> O(C <sub>2</sub> H <sub>3</sub> O <sub>2</sub> ) <sub>6</sub>	~0.45-4.5	0.002 mg/m <sup>3</sup> (as Be TWA)	[19049-40-2]	

**NONHAZARDOUS:**

Water	~90-97	N/A	[7732-18-5]	
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**SECTION 3**  
**HAZARDS IDENTIFICATION**

Corrosive. Harmful by ingestion. Irritating to the eyes and skin upon contact. May Cause Cancer.

**SECTION 4**  
**FIRST AID MEASURES**

**General:** Remove contaminated clothing, wash thoroughly before reuse.

**Eyes:** Flush with water for at least 15 minutes occasionally lifting upper and lower eyelids.

**Skin:** Remove contaminated clothing and flush with water thoroughly. **Inhalation:** Move to fresh air. Consult doctor if symptoms persist. **Ingestion:** Get immediate medical help. If the patient is conscious, give large quantities of water.

**SECTION 5**  
**FIRE FIGHTING MEASURES**

Flash Point: Not applicable.

Extinguishing media: Appropriate to surrounding fire conditions.

Special Hazards and Procedure: Oxides of Nitrogen can be released in case of fire.

Protective Equipment: Wear self contained breathing apparatus and full protective suit.

**SECTION 6**  
**ACCIDENTAL RELEASE MEASURES**

Ventilate area. Wear protective equipment. Do not allow to enter drainage systems or water ways. Dilute spill with water and neutralize with soda ash, limestone etc. Wipe up and put into a sealed container for proper disposal. Wash spill site with water after material pick up is complete. Wear chemical resistant glasses, gloves and clothing.

**SECTION 7**  
**HANDLING & STORAGE**

Ensure good ventilation/exhaustion at work place. Have an immediate availability of an eye wash in case of emergency. Store at room temperature. Keep the container tightly closed.

**SECTION 8**  
**EXPOSURE CONTROLS/PERSONAL PROTECTION**

Wear goggles, protective apron and acid resistant gloves. Use under fume hood. In case of brief exposure, use MSHA/NIOSH approved respirator.

**SECTION 9**  
**PHYSICAL & CHEMICAL PROPERTIES**

Form:	Liquid
Appearance & odor:	Transparent with acrid odor
Specific Gravity:	Approximately 1.0
pH:	1 to 2
Melting point:	n/a
Boiling Point:	~100C
Solubility in water:	Miscible
Danger of Explosion:	Not explosive
Self-ignitability:	Not self igniting

**SECTION 10**  
**STABILITY & REACTIVITY**

Stability: Stable under normal storage and use.

Reactivity: Reacts with strong alkali, various metals, and organic substances.

Hazardous Decomposition Products: Toxic fumes under conditions of fire.

Hazardous Polymerization: Will not occur.

**PLBE2/CLBE2 cont'd**

**SECTION 11**  
**TOXICOLOGICAL INFORMATION**

May produce caustic effect on skin, mucous membranes and eyes. Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

Beryllium salts (pure) are considered to be carcinogenic according to OSHA, NTP, and IARC. Direct contact with the metal or its compounds can cause sores on the hands, face, neck, and arms. Beryllium exposure can cause pneumonia characterized by anorexia, weight loss, kidneys, bones and cause lung cancer.

**TOXICITY DATA:**

Concentrated HNO<sub>3</sub>—RTECS#-QU5775000

orl-hmn LDLo: 430 mg/kg

Be<sub>4</sub>O(C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>)<sub>6</sub> - RTECS#DS2900000

unk-man LDLo: 110 mg/kg

(no data available)

**SECTION 12**  
**ECOLOGICAL INFORMATION**

Do not allow product to reach ground water, water bodies or sewage system.

**SECTION 13**  
**DISPOSAL CONSIDERATIONS**

Contact local Hazardous or Chemical waste disposal agency for regulations.

**SECTION 14**  
**TRANSPORT INFORMATION**

**Air :**

CLASS 8

UN/ID # 3264

Packing Group: III

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid solution)

**SECTION 14**  
**TRANSPORT INFORMATION**

**Ground:**

CLASS 8

UN/ID Number: 3264

Packing Group: III

Proper Shipping Name: Corrosive liquid, acidic, inorganic, n.o.s. (Nitric acid solution)

**SECTION 15**  
**REGULATORY INFORMATION**

USA:

SARA: Subject to the reporting requirements of Section 313 of SARA Title III and of 40 CFR 372.

Components of this solution are reported in EPA TSCA Inventory List.

This solution contains chemical(s) known to cause cancer according to the State of California (Proposition 65)

WHMIS Classification (Canada): CLASS D & CLASS E

EC Guidelines:

C: Corrosive

T - Carcinogen - category 2

Risk Phrases:

25- Toxic if swallowed

43- May cause sensitization by skin contact

45- May cause cancer

48- Toxic: danger of serious damage to health by prolonged exposure

34 - Causes burns

Safety Phrases:

36/37/39 - Wear suitable protective clothing, gloves, and eye/face protection

26 - in case of contact with eyes, rinse immediately with plenty of water and seek medical attention.

**SECTION 15**  
**REGULATORY INFORMATION**

45 - in case of accident or if you feel unwell, seek medical advice immediately.

53 - Avoid exposure - obtain special instruction before use.

Note: Restricted to Professional Users

**SECTION 16**  
**OTHER INFORMATION**

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References: NIOSH/OSHA, Occupational Health Guideline for Nitric Acid, (Sept.1978)

The Sigma/Aldrich Library of Chemical Safety Data, Ed.I, (1985)

Registry of Toxic Effects of Chemical Substances, 1981-82  
Patty's Industrial Hygiene and Toxicology, 3<sup>rd</sup> Revised Edition, Vol. 2A, 1981

Threshold Limit Values and Biological Exposure Indices for 1988-89, ACGIH

Dangerous properties of Industrial Materials by N.Irving Sax and Richard J. Lewis, Sr.(Ninth Edition)

Date: April 25, 2006