PLBE10 - Beryllium ICP in 5% Nitric Acid

Revision nr. 2

Dated 26/1/2017

Printed on 1/26/2017

Page n. 1/14

Safety data sheet according to U.S.A. Federal Hazcom 2012

SECTION 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Code: PLBE10

Product name Beryllium ICP in 5% Nitric Acid

1.2. Relevant identified uses of the substance or mixture and uses advised against

For Laboratory Use Only. Intended use

1.3. Details of the supplier of the safety data sheet

EXAXOL CHEMICAL CORPORATION Name Full address

14325 60 TH ST N

33760 CLEARWATER - FLORIDA District and Country

US

Tel. 1-727-524-7732 Fax 1-727-532-8221

e-mail address

info@exaxol.com

1.4. Emergency telephone number

1-800-255-3924 For urgent inquiries refer to

ChemTel Inc.

SECTION 2. Hazards identification.

2.1. Classification of the substance or mixture.

The product is classified as hazardous pursuant to the provisions set forth in OSHA Hazard Communication Standard (HCS) (29 CFR 1910.1200). The product thus requires a safety datasheet.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

Classification and Hazard Statement.

Carcinogenicity, category 1B Acute toxicity, category 4 Specific target organ toxicity - repeated exposure, category 1 Skin corrosion, category 1A Serious eye damage, category 1 Skin sensitization, category 1







Signal words:

Danger

Hazard statements:

May cause cancer. Harmful if inhaled.

Causes damage to organs through prolonged or repeated exposure.

Causes severe skin burns and eye damage.

Causes serious eye damage.

May cause an allergic skin reaction.

PLBE10 - Beryllium ICP in 5% Nitric Acid

Revision nr. 2

Dated 26/1/2017

Printed on 1/26/2017

Page n. 2/14

May cause cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

Harmful if inhaled. Causes severe skin burns and eye damage. H314

H317 May cause an allergic skin reaction.

Precautionary statements:

Prevention:

H350

H332

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust / fume / gas / mist / vapours / spray.

P264 Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product. P270 P271 Use only outdoors or in a well-ventilated area.

Contaminated work clothing should not be allowed out of the workplace. P272 P280 Wear protective gloves / protective clothing / eye protection / face protection.

Response:

P301+P330+P331 IF SWALLOWED: rinse mouth. Do not induce vomiting.

IF ON SKIN: wash with plenty of water. P302+P352

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

P304+P340 IF INHALED: remove person to fresh air and keep comfortable for breathing.

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 label).

P362+P364 Take off contaminated clothing and wash it before reuse.

P363 Wash contaminated clothing before reuse.

Storage:

Store locked up. P405

Disposal:

P501 Dispose of contents / container to an approved waste disposal plant.

2.2. Other hazards.

The product is not classified as hazardous for environment pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP).

SECTION 3. Composition/information on ingredients.

3.1. Substances.

Information not relevant.

3.2. Mixtures.

Contains:

Identification.	Conc. %.	Classification:
WATER		
CAS. 7732-18-5	50 - 100	
NITRIC ACID		
CAS. 7697-37-2	5 - 9	Oxidising liquid, category 3 H272, Skin corrosion, category 1A H314
Beryllium Oxide		3 ,
CAS. 1304-56-9	1 - 5	Carcinogenicity, category 1B H350, Acute toxicity, category 2 H330, Acute toxicity, category 3 H301, Specific

Revision nr. 2

Dated 26/1/2017

Printed on 1/26/2017

Page n. 3/14

PLBE10 - Beryllium ICP in 5% Nitric Acid

target organ toxicity repeated exposure, category 1 H372, Eye irritation, category 2A H319, Skin irritation, category 2 H315, Specific target organ toxicity single exposure, category 3 H335, Skin sensitization, category 1 H317

Note: Upper limit is not included into the range.

The full wording of hazard (H) phrases is given in section 16 of the sheet.

SECTION 4. First aid measures.

4.1. Description of first aid measures.

EYES: Remove contact lenses, if present. Wash immediately with plenty of water for at least 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

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

For symptoms and effects caused by the contained substances, see chap. 11.

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

Information not available.

SECTION 5. Firefighting measures.

5.1. Extinguishing media.

SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide and chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water.

Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

5.2. Special hazards arising from the substance or mixture.

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

If large quantities of the product are involved in a fire, they can make it considerably worse. Do not breathe combustion products.

EXAXOL CHEMICAL CORPORATION Revision nr. 2 Dated 26/1/2017 Printed on 1/26/2017

Page n. 4/14

5.3. Advice for firefighters.

GENERAL INFORMATION

In the case of fire, use jets of water to cool the containers to prevent the risk of explosions (product decomposition and excess pressure) and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Remove all containers containing the product from the fire, if it is safe to do so.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6. Accidental release measures.

6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Check incompatibility for container material in section 7. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7. Handling and storage.

7.1. Precautions for safe handling.

Ensure that there is an adequate earthing system for the equipment and personnel. Avoid contact with eyes and skin. Do not breathe powders, vapours or mists. Do not eat, drink or smoke during use. Wash hands after use. Avoid leakage of the product into the environment.

7.2. Conditions for safe storage, including any incompatibilities.

Store only in the original container. Store in a ventilated and dry place, far away from sources of ignition. Keep containers well sealed. Keep the product in clearly labelled containers. Avoid overheating. Avoid violent blows. Keep containers away from any incompatible materials, see section 10 for details.

7.3. Specific end use(s).

Revision nr. 2

Dated 26/1/2017

Printed on 1/26/2017

Page n. 5/14

PLBE10 - Beryllium ICP in 5% Nitric Acid

Information not available.

SECTION 8. Exposure controls/personal protection.

8.1. Control parameters.

Regulatory References:

NITRIC ACID

USA NIOSH-REL NIOSH publication No. 2005-149, 3th printing, 2007.

USA OSHA-PEL Occupational Exposure Limits - Limits for Air Contaminants TABLE Z-1-

1910.1000.

USA CAL/OSHA-PEL California Division of Occupational Safety and Health (Cal-OSHA)

Permissible Exposure Limits (PELs).

EU OEL EU Directive 2009/161/EU: Directive 2006/15/EC: Directive 2004/37/EC:

Directive 2000/39/EC.

TLV-ACGIH ACGIH 2014

Threshold Limit Value.					
Туре	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
TLV-ACGIH	-	5.2	2	10.3	4
OEL	EU			2.6	1
OSHA	USA	5	2		
CAL/OSHA	USA	5	2	10	4
NIOSH	USA	5	2	10	4

Beryllium Oxide Threshold Limit Value.					
Туре	Country	TWA/8h		STEL/15min	
		mg/m3	ppm	mg/m3	ppm
OSHA	USA	0.002		0.005 (C)	
CAL/OSHA	USA	0.0002		0.025 (C)	
NIOSH	USA	0.0005			

8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must comply with current regulations.

Provide an emergency shower with face and eye wash station.

The product must be used inside a closed circuit, in a well-ventilated environment and with strong localised aspiration systems in place.

Exposure levels must be kept as low as possible to avoid significant build-up in the organism. Manage personal protective equipment so as to guarantee maximum protection (e.g. reduction in replacement times).

HAND PROTECTION

Protect hands with category III work gloves (OSHA 29 CFR 1910.138).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

Revision nr. 2

Dated 26/1/2017

Printed on 1/26/2017

Page n. 6/14

PLBE10 - Beryllium ICP in 5% Nitric Acid

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

SKIN PROTECTION

Wear category III professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

EYE PROTECTION

Wear a hood visor or protective visor combined with airtight goggles (OSHA 29 CFR 1910.133).

In the presence of risks of exposure to splashes or squirts during work, adequate mouth, nose and eye protection should be used to prevent accidental absorption.

RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, wear a mask with a NIOSH certified filter, whose class must be chosen according to the limit of use concentration (NIOSH 42 CFR 84, OSHA 29 CFR 1910.134). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus or external air-intake breathing apparatus. For a correct choice of respiratory protection device, see standard NIOSH 42 CFR 84 and OSHA 29 CFR 1910.134.

ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9. Physical and chemical properties.

9.1. Information on basic physical and chemical properties.

Appearance Not available. Colour Not available. Odour Not available. Odour threshold. Not available Not available. Melting point / freezing point. Not available. Initial boiling point. Not available Boiling range. Not available. Flash point. > 93 °C. Not available. Evaporation Rate Flammability of solids and gases Not available. Lower inflammability limit. Not available. Upper inflammability limit. Not available. Lower explosive limit. Not available Upper explosive limit. Not available Vapour pressure. Not available. Vapour density Not available. Relative density. 1.032 Kg/l Solubility Not available. Partition coefficient: n-octanol/water Not available. Auto-ignition temperature. Not available. Not available Decomposition temperature. Viscosity Not available. Explosive properties Not available. Oxidising properties Not available.

9.2. Other information.

Information not available.

PLBE10 - Beryllium ICP in 5% Nitric Acid

Revision nr. 2

Dated 26/1/2017

Printed on 1/26/2017

Page n. 7/14

SECTION 10. Stability and reactivity.

10.1. Reactivity.

NITRIC ACID: decomposes at 84°C with possibility of self-ignition.

10.2. Chemical stability.

Information not available.

10.3. Possibility of hazardous reactions.

The product may react violently with water.

10.4. Conditions to avoid.

Avoid overheating. Prevent moisture or water from penetrating inside the containers.

NITRIC ACID: exposure to heat and light.

10.5. Incompatible materials.

NITRIC ACID: flammable substances, reducing substances, alcohol, basic substances and metals; acetone, acetic acid, acetic anhydride and certain plastics.

10.6. Hazardous decomposition products.

NITRIC ACID: nitric oxides.

SECTION 11. Toxicological information.

11.1. Information on toxicological effects.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification. It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

This product should be considered carcinogenic for human beings. Currently available data suggest that human exposure to the substance contained in this product may give rise to cancer development.

Acute effects: inhalation of this product is harmful.

Exposure symptoms may include: stinging and irritated eyes, mouth, nose, throat; cough, respiratory disorders, dizziness, headache, nausea and sickness. In the most serious cases, inhalation of this product may cause larynx and bronchial tube edema and irritation, chemical pneumonia and pulmonary edema.

This product may cause functional disorders or morphological mutations after repeated or prolonged exposure and/or may accumulate inside the human body and is thus graded as dangerous.

This product is corrosive and causes serious burns and vesicles on the skin, which can arise even after exposure. Burns are very stinging and painful. Upon contact with eyes, it may cause serious harm, such as cornea opacity, iris lesions, irreversible eye coloration. The vapors and/or powders are caustic for the respiratory system and may cause pulmonary edema, whose symptoms sometimes arise only after some hours.

Exposure symptoms may include: sting, cough, asthma, laryngitis, respiratory disorders, headache, nausea and sickness.

Revision nr. 2

Dated 26/1/2017

Printed on 1/26/2017

Page n. 8/14

PLBE10 - Beryllium ICP in 5% Nitric Acid

If swallowed, it may cause mouth, throat and oesophagus burns, sickness, diarrhoea, edema, larynx swelling and, consequently, asphyxia. Perforation of the gastro-intestinal tract is also possible.

This product may cause serious ocular lesions, cornea opacity, iris lesions, irreversible eye coloration.

Upon contact with skin, this product causes sensitization (dermatitis). Dermatitis derives from skin irritation on the areas which repeatedly come into contact with the sensitizing agent. Cutaneous lesions may include: erythemas, edemas, papules, vesicles, pustules, scurvies, ulcerations and exudative phenomena, whose intensity varies according to illness seriousness and affected areas. Erythemas, edemas and exudative phenomena prevail during the acute phase. Scurfy skin, dryness, ulcerations and skin thickening prevail during the chronic phase.

NITRIC ACID

LC50 (Inhalation).67 ppm/4h Rat

SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or sewers or contaminate soil or vegetation.

12.1. Toxicity.

Information not available.

12.2. Persistence and degradability.

NITRIC ACID

Solubility in water. > 1000000 mg/l

Biodegradability: Information not available.

12.3. Bioaccumulative potential.

NITRIC ACID

Partition coefficient: n-

octanol/water.

12.4. Mobility in soil.

Information not available.

12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

< 3

12.6. Other adverse effects.

Information not available.

SECTION 13. Disposal considerations.

13.1. Waste treatment methods.

Revision nr. 2

Dated 26/1/2017

Printed on 1/26/2017

Page n. 9/14

PLBE10 - Beryllium ICP in 5% Nitric Acid

Reuse, when possible. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

Waste transportation may be subject to dangerous goods transport regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14. Transport information.

14.1. UN number.

ADR / RID, IMDG, UN: 3264

IATA:

14.2. UN proper shipping name.

ADR / RID: CORROSIVE

LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC

ACID)

IMDG: CORROSIVE

LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC

ACID)

IATA:

14.3. Transport hazard class(es).

ADR / RID: Class: 8 Label: 8

IMDG: Class: 8 Label: 8

IATA: Class: 8 Label: 8



14.4. Packing group.

ADR / RID, IMDG,

IATA:

14.5. Environmental hazards.

ADR / RID: NO

14.6. Special precautions for user.

ADR / RID: Nr. Kemler: 80 Limited Tunnel Quantity 1 L restriction code (E)

Special Provision: -

IMDG: EMS: F-A, S-B Limited

Quantity 1 L

Revision nr. 2 **EXAXOL CHEMICAL CORPORATION** Dated 26/1/2017 Printed on 1/26/2017 PLBE10 - Beryllium ICP in 5% Nitric Acid Page n. 10/14 IATA: Cargo: Maximum Packaging quantity: 30 L instructions: 855 Pass.: Maximum Packaging quantity: 1 L instructions: 851 Special Instructions: A3, A803 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code. Information not relevant. **SECTION 15. Regulatory information.** 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture. U.S. Federal Regulations. TSCA: All components are listed on TSCA Inventory. Clean Air Act Section 112(b): 1304-56-9 Beryllium Oxide (Beryllium compounds) Clean Air Act Section 602 Class I Substances: No component(s) listed. Clean Air Act Section 602 Class II Substances: No component(s) listed. Clean Water Act -Priority Pollutants: No component(s) listed. Clean Water Act -Toxic Pollutants: Beryllium Oxide (Beryllium 1304-56-9 compounds) DEA List I Chemicals (Precursor Chemicals): No component(s) listed. DEA List II Chemicals (Essential Chemicals): No component(s) listed. **EPA List of Lists:**

PLBE10 - Beryllium ICP in 5% Nitric Acid

Revision nr. 2

Dated 26/1/2017

Printed on 1/26/2017

Page n. 11/14

313 Category Code:

1304-56-9 Beryllium Oxide (Beryllium

7697-37-2 Compounds)

EPCRA 302 EHS TPQ:

7697-37-2 NITRIC ACID

EPCRA 304 EHS RQ:

7697-37-2 NITRIC ACID

CERCLA RQ:

7697-37-2 NITRIC ACID

EPCRA 313 TRI:

1304-56-9 Beryllium Oxide (Beryllium

7697-37-2 SITRIC ACID

RCRA Code:

No component(s) listed.

CAA 112 (r) RMP TQ:

No component(s) listed.

State Regulations.

Massachussetts:

1304-56-9 Beryllium Oxide (Beryllium compounds)

7697-37-2 NITRIC ACID

Minnesota:

1304-56-9 Beryllium Oxide (Beryllium

compounds) 7697-37-2 NITRIC ACID

91-31-2 NITRIC ACI

New Jersey:

1304-56-9 Beryllium Oxide (Beryllium

7697-37-2 Delyilidin Gxic compounds)

New York:

7697-37-2 NITRIC ACID

Pennsylvania:

1304-56-9 Beryllium Oxide (Beryllium

compounds)
7697-37-2 NITRIC ACID

California:

1304-56-9 Beryllium Oxide (Beryllium

Revision nr. 2 Dated 26/1/2017

Printed on 1/26/2017

Page n. 12/14

PLBE10 - Beryllium ICP in 5% Nitric Acid

7697-37-2 Proposition 65: compounds) NITRIC ACÍD

WARNING! This product contains chemicals known to the State of California to cause cancer and birth defects or reproductive harm.

1304-56-9 Beryllium Oxide C (Beryllium

compounds)

International Regulations.

Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012:

None.

Substances subject to the Rotterdam Convention:

None.

Substances subject to the Stockholm Convention:

None.

Candadian WHMIS.

Information not available.

SECTION 16. Other information.

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

Ox. Liq. 3 Oxidising liquid, category 3 Carc. 1B Carcinogenicity, category 1B Acute Tox. 2 Acute toxicity, category 2 Acute Tox. 3 Acute toxicity, category 3 Acute Tox. 4 Acute toxicity, category 4

STOT RE 1 Specific target organ toxicity - repeated exposure, category 1

Skin Corr. 1A Skin corrosion, category 1A Skin Corr. 1B Skin corrosion, category 1B Skin Corr. 1C Skin corrosion, category 1C Eye Dam. 1 Serious eye damage, category 1

Eye Irrit. 2 Eye irritation, category 2 Eye Irrit. 2A Eye irritation, category 2A Skin Irrit. 2 Skin irritation, category 2

STOT SE 3 Specific target organ toxicity - single exposure, category 3

Skin Sens. 1 Skin sensitization, category 1 H272 May intensify fire; oxidiser.

H350 May cause cancer. H330 Fatal if inhaled. H301 Toxic if swallowed. H332 Harmful if inhaled.

PLBE10 - Beryllium ICP in 5% Nitric Acid

Revision nr. 2

Dated 26/1/2017

Printed on 1/26/2017

Page n. 13/14

Causes damage to organs through prolonged or repeated exposure.

H314 Causes severe skin burns and eye damage.

H318 Causes serious eye damage. H319 Causes serious eye irritation.

H315 Causes skin irritation.

H335 May cause respiratory irritation. H317 May cause an allergic skin reaction.

LEGEND:

H372

- 313 CATEGORY CODE: Emergency Planning and Community Right-to Know Act Section 313 Category Code
- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAA 112 ® RMP TQ: Risk Management Plan Threshold Quantity (Clean Air Act Section 112®)
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CERCLA RQ: Reportable Quantity (Comprehensive Environment Response, Compensation, and Liability Act)
- CLP: EC Regulation 1272/2008
- DEA: Drug Enforcement Administration
- EmS: Emergency Schedule
- EPA: US Environmental Protection Agency
- EPCRA: Emergency Planning and Community Right-to Know Act
- EPCRA 302 EHS TPQ: Extremely Hazardous Substance Threshold Planning Quantity (Section 302 Category Code)
- EPCRA 304 EHS RQ: Extremely Hazardous Substance Reportable Quantity (Section 304 Category Code)
- EPCRA 313 TRI: Toxics Release Inventory (Section 313 Category Code)
- GHS: Globally Harmonized System of classification and labeling of chemicals IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PEL: Predicted exposure level
- RCRA Code: Resource Conservation and Recovery Act Code
- REL: Recommended exposure limit
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TSCA: Toxic Substances Control Act
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- WHMIS: Workplace Hazardous Materials Information System.

GENERAL BIBLIOGRAPHY:

- GHS rev. 3
- The Merck Index. 10th Edition
- Handling Chemical Safety
- Niosh Registry of Toxic Effects of Chemical Substances
- INRS Fiche Toxicologique (toxicological sheet)
- Patty Industrial Hygiene and Toxicology
- N.I. Sax Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website
- 6 NYCRR part 597
- Cal/OSHA website
- California Safe Drinking Water and Toxic Enforcement Act
- EPA website
- Hazard Comunication Standard (HCS 2012)
- IARC website
- List Of Lists EPA: Consolidated List of Chemicals Subject to EPCRA, CERCLA and Section 112® of the Clean Air Act
- Massachussetts 105 CMR Department of public health 670.000: "Right to Know"
- Minensota Chapter 5206 Departemnt Of Labor and Industry Hazardous Substances, Employee "Right to Know".
- New Jersey Worker and Community Right to know Act N.J.S.A.
- NTP. 2011. Report on Carcinogens, 12th Edition.
- OSHA website

Revision nr. 2

Dated 26/1/2017

Printed on 1/26/2017

Page n. 14/14

PLBE10 - Beryllium ICP in 5% Nitric Acid

- Pennsylvania, Hazardous Substance List, Chapter 323 Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses. Provide appointed staff with adequate training on how to use chemical products.

Changes to previous review: The following sections were modified: 01 / 02 / 08 / 09 / 11 / 15 / 16.