Product Guide for LudgerSep™ BPT Solvent x10 Concentrate LS-R-BPTX10

(Ludger Product Code: LS-R-BPTX10)

Ludger Document # LS-R-BPTX10-Guide v1.1

Ludger Ltd
Culham Science Centre
Oxford OX14 3EB
United Kingdom

Tel: +44 1865 408 554
Fax: +44 870 163 4620
Email: info@ludger.com
www.ludger.com

Contents

Specifications for LS-R-BPTX10

Application

For preparation of butylamine/orthophosphoric acid/tetrahydrofuran solvent (BPT) used in monosaccharide HPLC analysis.

Description

50 mL of x10 LS-BPT solvent in a rectangular HDPE bottle with a leak-proof cap.

Usage

Dilute with de-gassed HPLC grade water use 1 bottle of LS-R-BPTX10 solvent to 450 mL of water. The 50 mL of x10 solvent will make 500 mL of BPT solvent. 500 mL of solvent should be sufficient for approximately 130 monosaccharide chromatography runs on a LudgerSepUR2 column.

Use the LS-R-BPTX10 solvent for HPLC analysis with our monosaccharide analysis UHPLC column:

- LudgerSep™ UR2 UHPLC column LS-UR2-2.1x50

Storage

Store unopened bottle at 4 °C. As with any HPLC solvent we recommend preparation of the solvent immediately before use. Take care that the diluted solvent is not exposed to excessive heat or sunlight as it contains volatile components. Stability times of the prepared solvent will vary according to your laboratory conditions. Longterm storage of the prepared solvent, ie longer than 4 days, may result in evaporation of some of the volatile components in the solvent leading to a change in monosaccharide retention times.

Additional Reagents and Equipment Required

- Pure water: resistivity 18 MΩ-cm, particle free (>0.22 μm), TOC <10 ppb
- Volumetric flask
- De-gassing station for HPLC solvents*

* Optional - depending on your HPLC system

Safety and Handling

- Please read the Material Safety Data Sheet (MSDS) and instruction protocol given in this guide before using this product.

- All processes involving this reagent should be performed using appropriate personal safety protection - eyeglasses, good quality chemically resistant gloves (e.g. nitrile), etc. - and where appropriate in a laboratory fume cupboard.

- Ensure that any glass, plasticware or solvents used are free of glycosidases and environmental carbohydrates. Use powder-free gloves for all sample handling procedures and avoid contamination with environmental carbohydrate.

Instruction Protocol

1 Prepare De-gassed HPLC Grade Water (Optional)

Prepare de-gassed HPLC grade water if de-gassed solvents are required for your HPLC system.

De-gassing of solvents (e.g. by vacuum, sonication or helium sparging) is required for optimal performance of some HPLC systems. Note that the BPT solvent is semi-volatile so water should be de-gassed ***before*** *adding the solvent concentrate.*

2 Dilute the BPT X10 Solvent

For highly accurate and reproducible solvent preparation transfer BPT solvent to 500 mL sized glass volumetric flask, add water to make up to the 500 mL mark. Stopper the flask and invert to mix.

3 Use the BPT X10 Solvent

Use the BPT solvent for monosaccharide UHPLC analysis according to the LudgerSep™ LS-UR2-2.1x50 column guide (available on our website). HPLC solvent line filters should be used at all times.

This solvent contains volatile components so we always recommend making the solvent up on the day of intended use.

Related Glycoanalysis Products

Description	Cat #	Usage / Notes
LudgerSep™UR2	LS-UR2-2.1x50	Microbore UHPLC version of the LS R2 column. Has the advantages of the 4.6 mm LS-R2 column plus lower solvent usage and greater sensitivity. Column dimensions are 2.1x50 mm and particle size is 1.9 μm.
LudgerTag™ 2-AA Monosaccharide Release and Labeling Kit	LT-MONO-96	For release and labeling of neutral and amino monosaccharides from glycoprotein therapeutics and pre-released glycans. This kit can be used for full quantitative or routine monosaccharide analysis.

Warranties and Liabilities

Ludger warrants that the above product conforms to the attached analytical documents. Should the product fail for reasons other than through misuse Ludger will, at its option, replace free of charge or refund the purchase price. This warranty is exclusive and Ludger makes no other warrants, expressed or implied, including any implied conditions or warranties of merchantability or fitness for any particular purpose.
Ludger shall not be liable for any incidental, consequential or contingent damages.

This product is intended for *in vitro* research only.

Document Revision Number

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Material Safety Data Sheet: LS-R-BPTX10

1. Chemical Product and Company Identification

Manufacturer

Ludger Ltd, Culham Science Centre, Oxford OX14 3EB, UK
Tel: +44 1865 408 554, Fax: +44 870 163 4620,
Email: info@ludger.com, Website: www.ludger.com

Identification of the substance

Butylamine
Ortho-Phosphoric Acid
Tetrahydrofuran

2. Composition and Information on Ingredients

Chemical	CAS No	Classification	Concentration
Butylamine	109-73-9	F, C, R11, R20/21/22 R35	2%
Ortho-Phosphoric Acid	7664-38-2	R34,	5%
Tetrahyrofuran	109-99-9	F, Xi, R11, R19, R36/37	10%
Water	7732-18-5	-	83%

3. Hazards identification

Irritating to the eyes, respiratory system and skin

4. First aid measures

Eyes: irrigate with plenty of water for at least 15 minutes.

Skin: wash with soap and water.

Ingestion: drink plenty of water.

Inhalation: move to a well ventilated area and clear nose and throat.

If in doubt seek medical advice.

5. Fire and Explosion Data

Fire fighting measures: Water spray or appropriate foam according to surrounding fire conditions.

6. Accidental Release Measures

Wear appropriate protective clothing. Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. Wash spill site after material pick up is complete.

7. Handling and storage

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Store in a cool place or at room temperature.

8. Exposure Controls / Personal Protection

Wear appropriate protective clothing (safety specs, gloves, laboratory coat) in accordance with local health and safety rules.

9. Physical and chemical properties

Clear, colourless liquid. Water soluble.

10. Stability and reactivity

Stable under recommended storage conditions.

Avoid exposure to strong oxidising agents and strong acids.

11. Toxicological information

May be harmful if swallowed, inhaled or absorbed through skin. May cause irritation, complete toxicological information not available.

12. Ecological Information

No data available.

13. Disposal considerations

Dilute with excess water, mop up with absorptive material and dispose of according to local regulations.

14. Transport Information

ADR/RID/IMDG/IATA: Not dangerous goods.

15. Regulatory information

Hazard Symbols:

C (Corrosive), F (Highly Flammable), Xi (Irritant)

Risk Phrases:

R11 (Highly flammable)

R19 (May form explosive peroxides)

R20/21/22 (Harmful by inhalation, in contact with skin and if swallowed)

R34 (Causes burns)

R35 (Causes severe burns)

R36/37/ (Irritating to eyes, respiratory system and skin)

Safety phrases

S3 (Keep in a cool place)

S16 (Keep away from source of ignition – No smoking)

S26 (In case of contact with eyes, rinse immediately with plenty of water and seek medical advice)

S29 (Do not empty into drains)

S33 (take precautionary measures against

S36/37/39 (Wear suitable protective clothing, gloves and eye/face protection)

S45 (In case of accident or if you feel unwell seek medical advice immediately)

16. Other Information

LS-R-BPTX10 MSDS version v1.0