**Summary of the chemical analyses of four ionic liquids**

**1-Ethyl-3-methylimidazolium chloride (EMIM, C6H11ClN2, CAS #65039-09-0)**

*In vivo* studies

Source:Sigma-Aldrich, St Louis, MO

Lot: #S37784

DNTP Chemistry Support Services: Midwest Research Institute (MRI) Global (Kansas City, MO)

Chemical identity confirmed by:Fourier transform infrared (FT-IR) and nuclear magnetic resonance (FT-NMR) spectroscopy

Purity determined by:Major peak comparison using high performance liquid chromatography (HPLC) with ultraviolet (UV) detection

Purity: 99.0 ±0.9 % (n=3)

Date of analysis report: Bulk chemical re-analysis June 10, 2009

*In vitro* studies

Source:Sigma-Aldrich, St Louis, MO

Lot: #STBB3624

DNTP Chemistry Support Services: Midwest Research Institute (MRI) Global

Chemical identity confirmed by: Infrared (IR) spectroscopy

Purity determined by: High performance liquid chromatography with ultraviolet (HPLC/UV) detection method

Purity: 100.7, 101.0, 101.4, 100.2, 101.4 and 101.0 percent (6 bottles)

Date of analysis report: Prestart chemistry report May 3, 2013

**1-Butyl-3-methylimidazolium chloride (BMIM,C8H15N2Cl, CAS #79917-90-1)**

*In vivo* studies

Source:Solvent Innovation, GmbH, Germany

Lot: #99/787

DNTP Chemistry Support Services: Midwest Research Institute (MRI) Global

Chemical identity confirmed by:Fourier transform infrared (FT-IR) and nuclear magnetic resonance (FT-NMR) spectroscopy

Purity determined by:Major peak comparison using high performance liquid chromatography (HPLC) with ultraviolet (UV) detection

Purity: 98.6 ± 0.5 % (n=2)

Date of analysis report: Bulk chemical re-analysis June 12, 2009

*In vitro* studies

Source:Solvent Innovation, GmbH, Germany

Lot: #99/787

DNTP Chemistry Support Services: Midwest Research Institute (MRI) Global

Chemical identity confirmed by:Fourier transform infrared (FT-IR) and nuclear magnetic resonance (FT-NMR) spectroscopy

Purity determined by:Major peak comparison using high performance liquid chromatography (HPLC) with ultraviolet (UV) detection

Purity: 98.6 ± 0.5 % (n=2)

Date of analysis report: Bulk chemical re-analysis June 12, 2009

**1-Butyl-1-methylpyrrolidinium chloride (BMPY, C9H20NCl, CAS # 479500-35-1)**

*In vivo* studies

Source:Solvent Innovation, GmbH, Germany

Lot: #99/831

DNTP Chemistry Support Services: Midwest Research Institute (MRI) Global

Chemical identity confirmed by:Fourier transform infrared (FT-IR) and nuclear magnetic resonance (FT-NMR) spectroscopy

Purity determined by:Major peak comparison using high performance liquid chromatography (HPLC) with electron light scattering detection

Purity: 101.3 ± 1.2% (n=3)

Date of analysis report: Bulk chemical re-analysis June 1, 2009

*In vitro* studies

Source: Promy Chemical, LLC, El Sobrante, CA

Lot: #20100610

DNTP Chemistry Support Services: Midwest Research Institute (MRI) Global

Chemical identity confirmed by: Infrared (IR) spectroscopy

Purity determined by: High performance liquid chromatography with charged aerosol detection (HPLC/CAD) method

Purity: 100.2, 99.7, 99.9 percent (3 bottles)

Date of analysis report: Prestart chemistry report July 23, 2013

**N-Butylpyridinium chloride (NBuPY (C9H14ClN, CAS #1124-64-7)**

*In vivo* studies

Source:Solvent Innovation, GmbH, Germany

Lot: #99/830

DNTP Chemistry Support Services: Midwest Research Institute (MRI) Global

Identity confirmed by:Fourier transform infrared (FT-IR) and nuclear magnetic resonance (FT-NMR) spectroscopy

Purity determined by:Major peak comparison using high performance liquid chromatography (HPLC) with ultraviolet (UV) detection

Purity: 101.1 ± 2.3 % (n=3)

Date of analysis report: Bulk chemical re-analysis Sept 9, 2009

*In vitro* studies

Source: Promy Chemical, LLC, El Sobrante, CA

Lot: #20100610

DNTP Chemistry Support Services: Midwest Research Institute (MRI) Global

Identity confirmed by: Infrared (IR) spectroscopy

Purity determined by: High performance liquid chromatography with ultraviolet (HPLC/UV) detection method

Purity: 100.2 and 101.0 percent (2 bottles)

Date of analysis report: Prestart chemistry report Aug. 1, 2013

Note: Purity was analyzed relative to the original reference sample for the same lot of the test article.