

Technical Data Sheet

1-Butyl-3-methylimidazolium trifluoromethanesulfonate

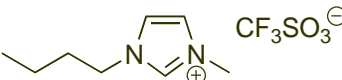
Revision Date: 2/13/2012

Date Issued: 6/24/2013

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

| | |
|----------------------------|-------------------------------------------------------------------------------------------------|
| Product name | 1-Butyl-3-methylimidazolium trifluoromethanesulfonate |
| Product code | IL-0013 |
| CAS | 174899-66-2 |
| Supplier | IoLiTec Ionic Liquids Technologies GmbH Salzstrasse 184 D – 74076 Heilbronn Germany |
| Telephone | +49 (0)7131-89839-0 |
| Fax | +49 (0)7131-89839-109 |
| Emergency telephone | +49 (0)179-5322578 |
| Email | info@iolitec.de |

2 COMPOSITION/INFORMATION ON INGREDIENTS

| | |
|--------------------------|--------------------------------------------------------------------------------------|
| Ingredient name | 1-Butyl-3-methylimidazolium trifluoromethanesulfonate |
| CAS No. | 174899-66-2 |
| Empirical Formula | C ₉ H ₁₅ F ₃ N ₂ O ₃ S |
| Structure |  |
| Molecular weight | 288.29 g/mol |
| Purity | >99% |

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3 PROPERTIES

| | |
|-----------------------------------------|------------------------|
| Color | Yellow to orange |
| Physical state (25 °C) | Liquid |
| Melting point | 16 °C |
| Glass transition temperature | -82 °C |
| Decomposition temperature | >250 °C |
| Density (24 °C) | 1.30 g/cm ³ |
| Viscosity (25 °C) | 80 mPa * s |
| Heat capacity (62 °C) | 457 J/(mol * K) |
| Thermal conductivity (20 °C) | 0.147 W/(m * K) |
| Conductivity (20 °C) | 3.05 mS/cm |
| Electrochemical stability window | not available |
| Anodic limit | not available |
| Cathodic limit | not available |
| Surface tension (25 °C) | not available |
| Refractive index (25 °C) | 1.438 |

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Viscosity:

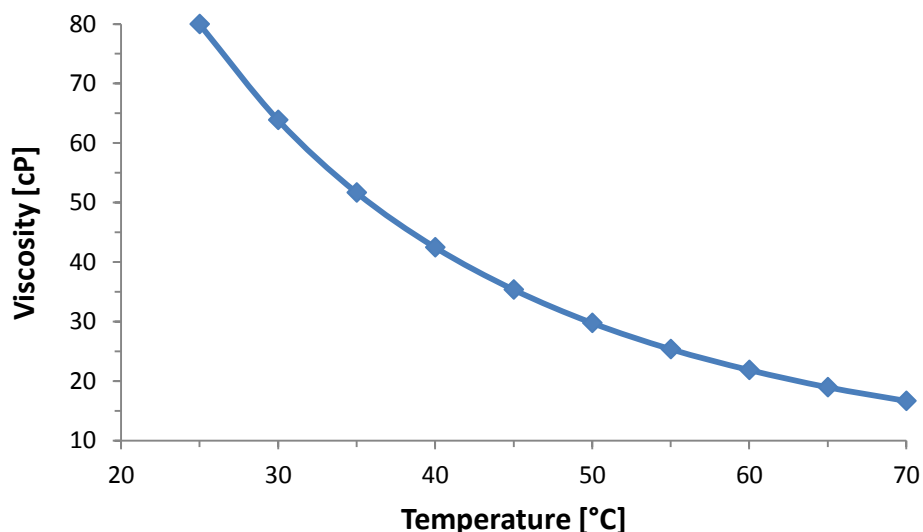


Figure 1: Temperature-dependend viscosity of 1-butyl-3-methylimidazolium trifluoromethanesulfonate.

Heat capacity:

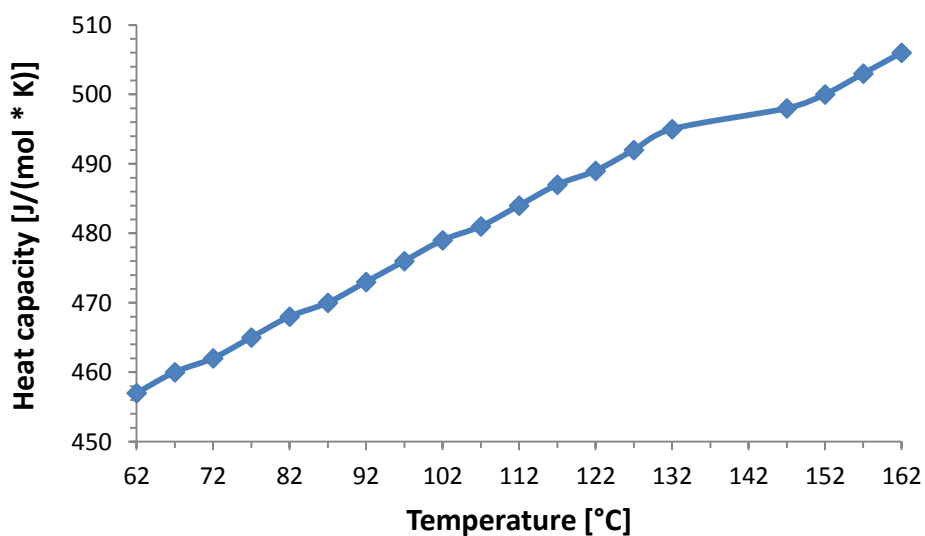


Figure 2: Temperature-dependend heat capacity of 1-butyl-3-methylimidazolium triflate.

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Thermal conductivity:

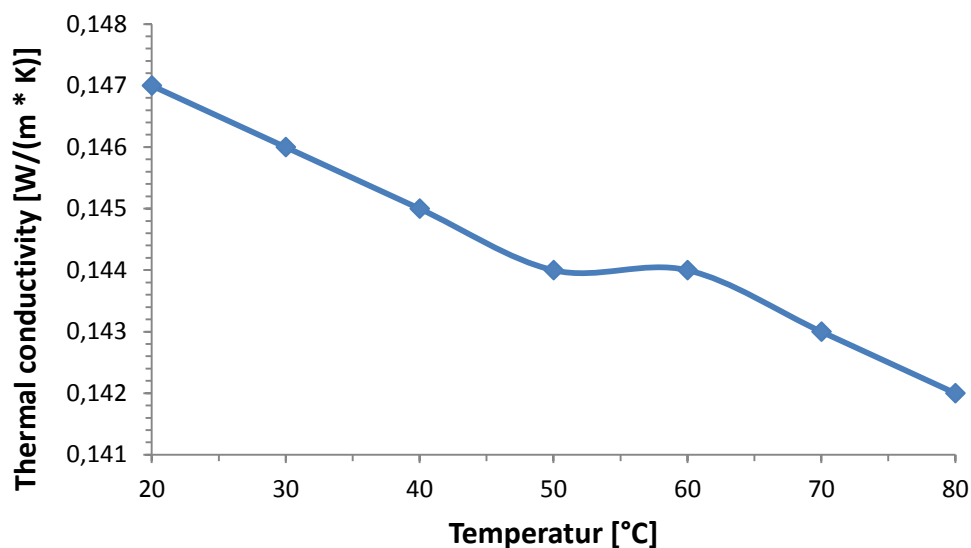


Figure 3: Temperature-dependent thermal conductivity of 1-butyl-3-methylimidazolium trifluoromethanesulfonate.

Thermal stability:

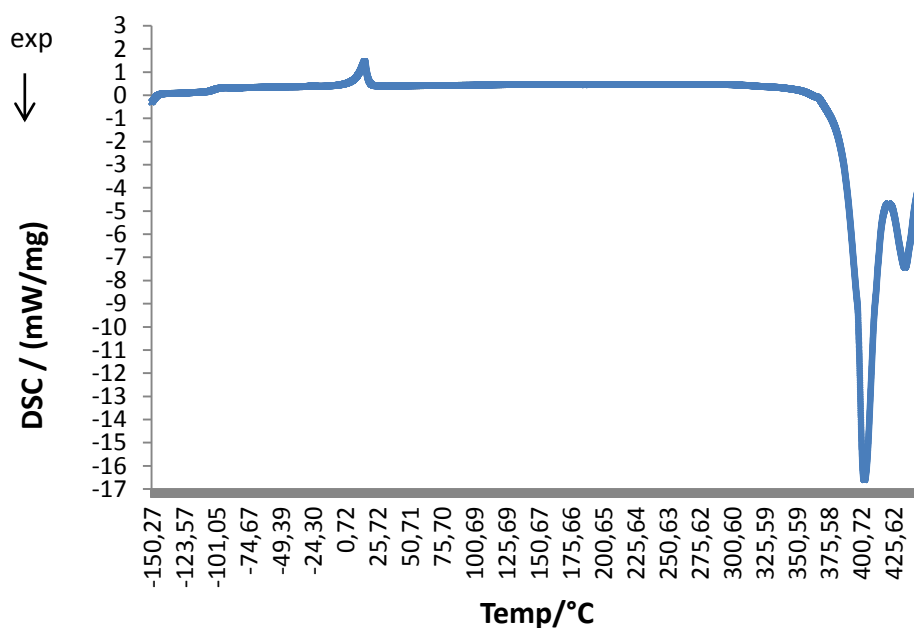


Figure 4: DSC measurement of 1-butyl-3-methylimidazolium trifluoromethanesulfonate.

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4 CO-SOLVENT MISCIBILITY

| | |
|---------------------|---------------|
| Water | miscible |
| Acetone | miscible |
| Acetonitrile | not available |
| Isopropanol | miscible |
| Toluene | miscible |
| Hexane | not miscible |

5 ORDER INFORMATION

IL-0013-HP can be obtained in the following standard quantities:

| Quantity | Price |
|----------|----------------|
| 25 g | Please enquire |
| 50 g | Please enquire |
| 100 g | Please enquire |
| 250 g | Please enquire |
| 500 g | Please enquire |
| 1 kg | Please enquire |
| Bulk | Please enquire |

Please send your order via email to order@iolitec.de or fax +49 (0)7131 – 89839109.

6 OTHER INFORMATION

DISCLAIMER

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