

Thermodynamic and Thermophysical Properties of the Reference Ionic Liquid: 1-Hexyl-3-methylimidazolium bis[(trifluoromethyl)sulfonyl]amide (including mixtures). Part 1. Experimental Methods and Results (IUPAC Technical Report)

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Pure and Applied Chemistry, 2009
Vol. 81, No. 5, pp. 781–790

This article (and the following part 2*) summarizes the results of IUPAC Project 2002-005-1-100 (Thermodynamics of Ionic Liquids, Ionic Liquid Mixtures, and the Development of Standardized Systems). The methods the contributors used to measure the thermophysical and phase equilibrium properties of the reference sample of the ionic liquid 1-hexyl-3-methylimidazolium bis[(trifluoromethyl)sulfonyl]amide and its mixtures are summarized, along with the uncertainties the contributors estimated. Some results not previously published are presented. Properties of the pure ionic liquid included thermal properties (triple-point temperature, glass-transition temperature, enthalpy of fusion, and heat capacities of condensed states), volumetric properties, speeds of sound, viscosities, electrolytic conductivities, and relative permittivities. Properties for mixtures included gas solubilities, solute activity coefficients at infinite dilution, liquid-liquid equilibrium temperatures, and excess volumes. The companion article (part 2) provides a critical evaluation of the data and recommended values with estimated combined expanded uncertainties.

 <http://dx.doi.org/10.1351/PAC-REP-08-09-21>

*Part 2. Critical Evaluation and Recommended Property Values (IUPAC Technical Report)

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Pure and Applied Chemistry, 2009
Vol. 81, No. 5, pp. 791–828

 <http://dx.doi.org/10.1351/PAC-REP-08-09-22>

Glossary of Terms Used in Ecotoxicology (IUPAC Recommendations 2009)

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Pure and Applied Chemistry, 2009
Vol. 81, No. 5, pp. 829–970

This glossary's objective is to provide clear definitions for those who contribute to studies relevant to ecotoxicology but are not themselves ecotoxicologists. This situation applies especially to chemists who need to understand the ecotoxicological literature without recourse to a multiplicity of dictionaries. The glossary includes terms related to chemical speciation in the environment, sampling, monitoring, and environmental analysis, as well as terms related to adverse ecological effects of chemicals, ecological biomarkers, and the environmental distribution of chemicals. The dictionary consists of 1139 terms. In addition to chemists, the authors hope that pharmacologists, toxicologists, ecotoxicologists, risk assessors, regulators, medical practitioners, and regulatory authorities will find this glossary helpful. In particular, the glossary should facilitate the use of chemistry in relation to environmental risk assessment.

 <http://dx.doi.org/10.1351/PAC-REC-08-07-09>

Glossary of Terms Related to Pharmaceuticals (IUPAC Recommendations 2009)

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Pure and Applied Chemistry, 2009
Vol. 81, No. 5, pp. 971–999



The idea of constructing a glossary of terms related to pharmaceuticals was first raised at the meeting of the Section on Medicinal Chemistry of the Division of Chemistry and Human Health in 1999 and became a recognized project in 2001.

Prior to this glossary, the Division of Chemistry and Human Health did not deal with the areas of pharmacy and pharmaceuticals, although the Section on Medicinal Chemistry has dealt with closely related subjects, such as toxicology, drug metabolism, pharmaceuti-