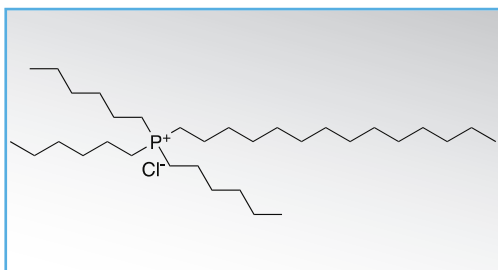


Catalog # T303251

## Trihexyl(tetradecyl)phosphonium chloride CYPHOS® IL 101



| Product Details   |                                     |
|-------------------|-------------------------------------|
| Color and Form    | colorless liquid                    |
| Density           | 0.894                               |
| CAS No.           | 258864-54-9                         |
| Molecular Formula | C <sub>32</sub> H <sub>68</sub> ClP |
| Molecular Weight  | 519.31 g/mol                        |

**CYPHOS® IL 101** is a readily available, high purity ionic liquid. **CYPHOS® IL 101** has been exploited for a wide variety of applications and is amenable to chemical modification (anion exchange). With high thermal stability, large liquid range and solubility in a variety of common solvents **CYPHOS® IL 101** is employed in many different applications. Further features of **CYPHOS® IL101** include: ultra-low vapor pressure, hydrophobic cation, nonflammable and inherent polarity.

### Technical Notes:

- CYPHOS® IL 101** has found use in a diverse range of applications. These applications include additives in non-durable anti-static materials. <sup>1</sup>
- Purification systems for both water and pharmaceutical applications have been investigated. <sup>2</sup>
- Furthermore, **CYPHOS® IL 101** has been shown to be effective at recycling/ scavenging rare earth metals such as neodymium and dysprosium from used magnets and recovering nickel from metal hydride batteries. <sup>3, 4</sup>
- Catalysis is a major area of application as well as **CYPHOS® IL 101** has been exploited in phase transfer catalysis (PTC) as well as a solvent for palladium coupling. <sup>5, 6</sup>

### References:

- WO Patent 2007119631, **2007**.
- Fluid Phase Equilibria*, **2015**, 297, 18-25.
- Green Chemistry*, **2015**, 17, 2931-2942.
- Green Chemistry*, **2014**, 16, 4595-4603.
- Ind. Eng. Chem. Res.* **2008**, 47, 9081-9089.
- Australian Journal of Chemistry*, **2009**, 62, 309-321.

### Storage and Handling:

Always wear approved safety glasses, protective gloves, and clothing when handling chemical substances. Handle the product in an efficient fume hood and avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Remove and wash contaminated clothing promptly.

Avoid release into the environment. **CYPHOS® IL 101** is stable over long periods of time (12+ months) and will not polymerize. **CYPHOS® IL 101** should not be stored in air or near oxidizing agents. Potential hazardous decomposition products are oxides of carbon and/or phosphorus. Handle in accordance with good industrial hygiene and safety practices. Avoid unnecessary exposure to the product. For additional health, safety and handling information, refer to the product SDS. **CYPHOS® IL 101** is classified for skin corrosion and can cause serious eye damage. Keep containers tightly sealed, and store in a dry area between 10-30 °C. Rotate stock using the oldest material first.