

## 15-7555: CYTOP® 501



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Sold in collaboration with Solvay.

# Bis(2,4,4-trimethylpentyl)phosphinic acid, min. 85%, CYTOP® 501

Me Me	Me	Me	0=P P-OH	Me	Me Me Me

Product Details				
Purity	min. 85%			
Color and Form	Yellow liquid			
Density	0.92			
Flash Point	>226*F			
CAS No.	27661-42-3			
Molecular Formula	C <sub>16</sub> H <sub>35</sub> O <sub>2</sub> P			
Molecular Weight	290.42 g/mol			

**CYTOP® 501,** bis(2,4,4-trimethylpentyl)phosphinic acid, is colourless to light yellow liquid and has found application in quantum dot manufacture, surface treatment and as an extractant.

#### **Technical Notes:**

- 1. CYTOP 501 has been used as a capping ligand in the manufacture of nanotetrapods.1
- 2. It has also found broad efficacy in the field of metal extraction, for example in the separation of cobalt and nickel from acid sulfate liquors such as those produced in the High Pressure Acid Leaching processing of nickel laterites and the extraction of uranium. <sup>2,3</sup>
- The product has been used as a component of surface treatments to enhance the corrosion and wear resistance of metal substrates.<sup>4</sup>

#### **References:**

- 1. Chem. Mater. 2016, 28, 1187-1195.
- 2. Hydrometallurgy 2014, 150, 173-177.
- 3. Hydrometallurgy 2015, 152, 7-12.
- 4. US Patent 8,741,390, 2014.

### **Storage and Handling:**

Handle in accordance with good industrial hygiene and safety practices including avoiding unnecessary exposure to the product and removal of material from skin, eyes and clothing. For additional health, safety and handlinginformation, refer to the product SDS (CYTOP 501 is classified as a toxic material). Keep containers tightly sealed and store in a dry area at room temperature. Rotate stock using the oldest material first.

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