

# Phosphines and Chlorophosphines

*Provide consistent, reliable, superior performance in pharmaceutical and industrial applications*

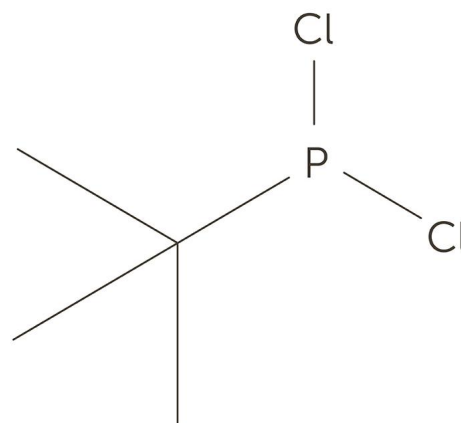
As a leader in specialty chemicals and advanced materials for the microelectronics, life sciences, and other high-tech industries, we can accelerate your new product development efforts and manufacturing supply chain by providing critical materials at the appropriate scale, and within the communicated delivery schedule. Our portfolio of phosphines and chlorophosphines is tailored to your manufacturing requirements and specifications to meet your high-quality customized needs.

Our phosphines and chlorophosphines are the starting materials to phosphine and phosphinite ligands for optimizing asymmetric hydrogenations and various cross-coupling reactions including C-C, C-N, and C-O bond formations. Our high-purity portfolio with semiconductor-grade impurity control ensures reliable and consistent quality in pharmaceutical and industrial chemical applications.

Our experienced R&D teams provide deep chemistry expertise in an innovative culture to deliver custom synthesis solutions that meet your proprietary development needs. With our extensive manufacturing capabilities, we can handle a range of projects from grams to metric ton quantities, through scale-up and full commercialization. We also provide chemical process development, piloting, and custom chemical manufacturing.

## APPLICATIONS

- Active pharmaceutical ingredients (APIs) for small molecule drug manufacturing
- Organic synthesis in chemical manufacturing processes



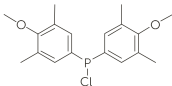

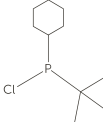
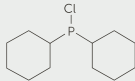
## FEATURES & BENEFITS

<b>High purity semiconductor-grade impurity control</b>	Ensures reliable and consistent quality for consistent yields and results
<b>Customer collaboration</b>	Proactive and regular team communication and encouraged site visits enable beneficial idea exchange and enhance on-track progress
<b>Advanced scientific expertise</b>	Technical transfers, R&D, scale-up optimization, and continuous improvement are conducted by PhD chemist-led teams that are supported by world-class quality and analytical resources
<b>ISO 9001 and 14001 certifications</b>	<p>The Entegris quality management system (QMS) certified by the ISO 9001 standard ensures provision of consistent quality products meeting customer and regulatory requirements</p> <p>The Entegris environmental management system (EMS) following the ISO 14001 standard assures a strategic and integrated approach to managing and improving environmental performance</p>

## SPECIFICATIONS

Our products are made to strict specifications and our experienced R&D teams can partner with you to meet your proprietary development needs. With our manufacturing capabilities and resources, we can deliver on communicated timing requirements as well as high-quality customized solutions. [Contact us](#) with your specifications.

## Product Portfolio

Catalog #	CAS #	Product	Structure
BIS1056	136802-85-2	Bis(3,5-dimethyl-4-methoxyphenyl)chlorophosphine	
BUT0199	25979-07-1	tert-Butyldichlorophosphine	
BUT1947	1190014-10-8	tert-Butylcyclohexylchlorophosphine	
DIC0637	16523-54-9	Dicyclohexylchlorophosphine	

### FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit [entegris.com](http://entegris.com) and select the [Contact Us](#) link to find the customer service center nearest you.

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Corporate Headquarters  
129 Concord  
Billerica, MA 01821  
USA

Customer Service  
Tel +1 952 556 4181  
Fax +1 952 556 8022  
Toll Free 800 394 4083

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