



DI-T-BUTYLCHLOROPHOSPHINE (DTBCP)

CAS No. 13716-10-4

QS-PDS-031 Revision: 00

Product Names Di-*tert*-butylchlorophosphine, DTBCP

Formula C₈H₁₈PCl

Appearance Clear liquid

Application Di-*tert*-butylchlorophosphine (DTBCP) is a **DEVELOPMENTAL** product used primarily in the preparation of mono- and bidentate phosphine ligands in metal complexes for catalytic chiral asymmetric hydrogenations and other asymmetric reactions as well as transition metal coupling reactions. This reagent is also used in the preparation of other phosphines in catalytic polymerization reactions. For reviews see: 1) *Palladium Reagents and Catalysts*, John Wiley & Sons: Chichester, **1995** p.345-356. 2) *Advanced Synthesis & Catalysis*, Wiley-VCH Verlag GmbH **2001** p.118-136. 3) *Tetrahedron: Asymmetry* **2004**, 15 (17), 2621-2631 and references cited therein.

Product Specification

% Purity by ³¹P NMR

Guaranteed*
95 min

**This product can be made to agreed upon customer specifications.*

Solvent Neat

Physical Properties	Molecular weight	180.6
	Density @20°C	0.951 g/cc
	Percent volatile	0%
	Pyrophoricity	Non-pyrophoric

Solubility Incompatible with water and bases

Thermal Stability Stable at room temperature



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Toxicity/Safety Data Corrosive to eyes (may cause blindness), skin, nose, throat and stomach. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin. Harmful if swallowed, inhaled, or absorbed through skin.

COMPLETE INFORMATION ON TOXICITY AND SAFETY IS CONTAINED IN THE OPTIMA MATERIAL SAFETY DATA SHEET (MSDS) AVAILABLE FOR THIS PRODUCT.

Handling/Storage/Disposal Keep away from sources of ignition. Wear suitable protective clothing, gloves and eye/face protection. Wash hands and face thoroughly after handling. Handle and store under nitrogen. Store in cool, dry place.

Shipping Containers Sample bottles 125 mL and 500 mL

Shipping Limitations Shipments of DTBCP are described as "Corrosive liquid, acidic, organic N.O.S (DI-TERT-BUTYLCHLOROPHOSPHINE) 8, UN3265, PG II". Shipments require "Corrosive" labels.

Post, Parcel	Not acceptable
Sea	Class 8 (IMDG)
Road, Rail	Class 8 (DOT, RID/ADR)
Air	Class 8 (IATA)
	50 kg maximum per outer container.
	Cargo aircraft only.

For shipments within Europe, labeling for supply requirements are:

C	Corrosive
R&S Phrase	See Material Safety Data Sheet

Responsible Care® initiative dictates that all shipments must be transported in a DOT-approved vehicle in a responsible manner (i.e., no flat bed trucks).

Additional Resources Refer to the Organometallics and Reactive Specialty Organics Safe Handling Guide.