



*t*-BUTYLDIPHENYLCHLOROSILANE (BPS)

CAS No. 58479-61-1

QS-PDS-001 Revision: 01

**Product Names** *t*-Butyldiphenylchlorosilane, *t*-Butyldiphenylsilyl chloride, BPS

**Formula** (CH<sub>3</sub>)<sub>3</sub>CPh<sub>2</sub>Si-Cl

**Appearance** Clear, colorless liquid

**Application** *t*-Butyldiphenylchlorosilane (BPS) is a **DEVELOPMENTAL** product that is an exceedingly sterically hindered hydroxyl protecting group. The *t*-butyldiphenylsilyl protecting group is considerably more stable (approximately 100 times) than the *t*-butyldimethylsilyl protecting group toward acidic hydrolysis. Therefore, this reagent has found utility in a variety of complex natural product syntheses. For leading references, consult T. W. Greene and P. G. M. Wuts, *Protective Groups in Organic Synthesis, 3<sup>rd</sup> Edition, 1999* John Wiley & Sons, p. 141.

**Product Specification**

	<u>Guaranteed*</u>
Assay, wt%	97.0% min

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

**Solvent** Neat

**Physical Properties**

Molecular weight	274.87
Flash point (closed cup)	>200°F (>95°C)
Specific gravity @25°C	1.057
Boiling point	198°C at 20 mm Hg
Pyrophoricity	Non-pyrophoric

**Solubility** *t*-Butyldiphenylchlorosilane is miscible in all proportions with aliphatic, aromatic, and ethereal solvents. Insoluble in water.

**Thermal Stability**

BPS is stable under inert atmosphere in sealed container at room temperature. Reacts slowly with water, alcohols, organic acids and amines.



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**Toxicity/Safety Data** May be extremely irritating to eyes, skin and mucous membranes. Reacts slowly with water or moisture to form hydrochloric acid.

*ADDITIONAL INFORMATION ON SAFETY IS CONTAINED IN THE OPTIMA NEW PRODUCT DATA SHEET (NPDS) AVAILABLE FOR THIS PRODUCT.*

**Handling/Storage/Disposal** Do not get into eyes, on skin, or clothing. Avoid breathing vapors. Wear safety glasses or goggles, and rubber gloves. Use only in work area having adequate ventilation or use NIOSH/OSHA approved respirator. Keep container tightly closed. Keep separated from amines, basic compounds, and oxidizers. Wash contaminated clothing before reuse. Wash thoroughly after handling. Keep away from heat, sparks and flame.

**Shipping Containers** BPS is available in sample quantities in glass bottles with UN-approved overpack.

Glass Bottles 125 mL, 500 mL and 1 L

**Shipping Limitations** Shipments of BPS require no hazardous shipping labels. Shipments by air, water, rail, or truck are acceptable within each carrier's weight limits and packaging requirements.

For shipments within Europe, labeling for supply requirements are:

Xn	Harmful
R&S phrases	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.