



LITHIUM DIPHENYLPHOSPHIDE IN THF (LIDPP)

CAS No. 4541-02-0

QS-PDS-032 Rev

Revision: 00

Product Names Lithium diphenylphosphide, LiDPP

Formula C₆H₁₀LiP

Appearance Clear, red solution

Application Lithium diphenylphosphide is a **DEVELOPMENTAL** product used primarily in the

selective dealkylation of methyl aryl ethers. This reagent is also used in preparing other phosphine complexes for Manganese and Rhodium catalysts in oxidation and hydrogenation reactions. Please see: 1) *Acros Organics Acta* **1995**, *1(1)*, 40-1; 2) *Inorganica Chimica Acta* **1995**, *230(1-2)*, 219-23; 3) *Journal of Molecular*

Catalysis 1981, 11(2-3), 313-22.

Product Specification Guaranteed*

Lithium diphenylphosphide, wt % 10-15%
Tetrahydrofuran, wt % 85-90%
Lithium chloride 2-4%

Solvent Tetrahydrofuran (THF)

Physical Properties Molecular weight 192.13
Density @ 20°C 0.915 g/ml

Boiling point of THF 66°C

Percent volatile 85-90%

Pyrophoricity Non-pyrophoric

Solubility Incompatible with water, air, acids

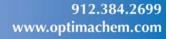
Thermal Stability A 10 wt% solution of this material decomposes at <0.002% per day at -28°C,

0.04% per day at 5°C, 0.24 wt% per day at ambient temperature and 1.8 wt% per day at 40°C. Solutions should be stored and shipped cold. Decomposition does

not lead to appreciable heat or pressure build up.

200 Willacoochee Highway Douglas, Georgia 31533 Email: sales@optimachem.com Research / Process Development Process Validation and Scale Up Commercial Production

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





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Toxicity/Safety Data

Flammable liquid. Water reactive. In case of fire do not use water or carbon dioxide.

Corrosive to eyes (may cause blindness), skin, nose, throat and stomach. May be harmful if swallowed, inhaled, or absorbed through skin. May cause neurotoxic effects.

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

Handling/Storage/Disposal

Keep away from water, air, and oxidizing materials. Wear full face protection and gloves. Use in a closed system under inert atmosphere of argon or nitrogen. Keep away from sources of ignition, water, air, acids and oxidizing agents. Do not get in eyes, on skin or clothing. Protect storage container against leaks and physical damage.

Shipping Containers

Sample Glass Bottles

125 mL and 500 mL

Shipping Limitations

Shipments of LiDPP are described as "Flammable liquid, corrosive, N. O. S. (*LITHIUM DIPHENYLPHOSPHIDE IN TETRAHYDROFURAN, SOLUTION*) 3 (8), UN2924, PG II." Shipments require "Flammable" and "Corrosive" labels.

Post, Parcel Not acceptable

Sea Class 3 (8) (IMDG)
Road, Rail (USA) Class 3 (8) (DOT)
Road, Rail (EU) Class 3.26b (RID/ADR)
Air Class 3 (8) (IATA)

2.5 L maximum per inner glass container.5 L maximum per singer/outer container.

Cargo aircraft only

For shipments within Europe, labeling for supply requirements are:

F Highly Flammable

C Corrosive

N Dangerous for the Environment 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.