

# n-Hexyl Lithium

33% in Hexane

## PRODUCT IN FOCUS



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### INTRODUCTION

n-Hexyllithium in hexane solution (HxLi) is an organolithium compound primarily used in organic synthesis as a strong base, alkylating agent, and lithiation reagent. It is particularly effective in the deprotonation of weakly acidic compounds.

Handling n-Hexyllithium requires strict safety precautions due to its highly reactive nature, particularly due to its sensitivity to moisture, air, and heat.

### MANUFACTURE

The manufacturing process typically involves the reaction of n-hexyl chloride ( $C_6H_{13}Cl$ ) with a lithium metal in a hydrocarbon solvent, like hexane.

### APPLICATIONS

Due to its high reactivity, n-Hexyllithium is crucial in synthetic chemistry and helps in creating compounds used across various industries, including pharmaceuticals, agrochemicals, materials science, and polymer production. Some of the key applications for n-Hexyllithium are as follows;

- ④ Nucleophilic substitution (formation of C-C bonds)
- ④ Grignard-like reactions with carbonyl compounds
- ④ Formation of organometallic intermediates for further synthesis
- ④ Lithiation of aromatic compounds for selective substitution
- ④ Synthesis of conjugated dienes and other specialized organic molecules
- ④ Polymerization initiation for synthetic rubbers or specialty plastics
- ④ Preparation of lithium enolates for carbonyl chemistry
- ④ Synthesis of organosilicon compounds
- ④ Regioselective lithiation for complex molecule synthesis
- ④ Reduction reactions involving electrophilic groups

#### Synonym

n-Hexyllithium, Hexane - lithium complex; 1-Lithiohexane

#### CAS no.

21369-64-2

#### EINECS no.

404-950-0

#### Molecular formula

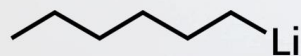
$CH_3(CH_2)_5Li$

#### Molecular weight

92.11

#### Structure





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### SPECIFICATIONS

Test	Unit	Specifications
Appearance	-	Pale yellow to dark yellow color liquid
Solubility	-	Soluble in Hexane and Tetrahydrofuran
Weight /mL (at 20°C)	gm /mL	0.700 – 0.720
Molarity	M	NLT 2.55
Assay (Chemical Analysis)	%	NLT 33.0

### STORAGE

Recommended storage temperature 2° to 8°C under inert gas.

Air & moisture sensitive, hence store in airtight, moisture-resistant sealed containers.

Shipped in reefer container.

### PACKING

500 Ltrs. UN-approved cylinder.

### REACH Status

Not registered.

ExSyn offers n-Hexyllithium in hexane solution on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.