

LITHIUM 2,2,6,6-TETRAMETHYLPYRIDIDE (LiTMP)**CAS No. 38227-87-1**

QS-PDS-008 Rev: 00

FMC Product Code No. 643-237**Formula** C₉ H₁₈ N-Li**Appearance** Yellow to red solution

Application LiTMP is a *non-pyrophoric* strong base, primarily used in organic synthesis. This product circumvents the generation and evolution of butane associated with the preparation of LiTMP by the reaction of n-butyllithium and tetramethylpiperidine. LiTMP is ~100 times more basic than LDA and therefore is particularly useful for deprotonating weakly acidic protons when a *non-nucleophilic* base is required.

Product Specification Typical composition: 10 wt% LiTMP (0.6 Molar)
1 wt% 2,2,6,6-Tetramethylpiperidine
4 wt% Ethylbenzene
85 wt% THF

Form LiTMP is soluble in THF/Ethylbenzene. During cold storage product may precipitate as needle type crystals, which will dissolve when the mixture is warmed and agitated.

Packaging Bulk containers 2000-20,000 L
Cylinders 5-450 L
Glass bottles 125 and 500 mL

Shelf Life This product must be stored under an inert atmosphere of nitrogen or argon. Also suggest this product be stored at 0 C or below to prevent thermal decomposition. During cold storage below 0 C product may precipitate as needle type crystals, which will dissolve when the mixture is warmed and agitated. Thermal stability tests have indicated the following loss of active assay: <0.01%/day at 0 C, 0.06%/day at 20C and 0.23%/day at 40C.

Physical Properties Molecular weight 147.2 g/mole
Density (at 20 C) 0.896 g/ml
Flash point (closed cup) -22 C
Solution is not pyrophoric.

Air Treatment Construction Energy Fine Chemicals Glass & Ceramics Greases & Lubricants Polymers Pool Water Treatment

MARKETS SERVED

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AND HEADQUARTERS
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Toxicity/Safety Data

LiTMP is corrosive to eyes, skin, nose, and throat. Inhalation of solvent vapors may cause intoxication, unconsciousness, and irritation of the respiratory tract. Product contact with any part of the body can result in caustic and thermal burns and should be avoided. In case of contact, flush with copious amounts of water for at least 15 minutes and obtain immediate medical attention.

Additional information on toxicity and safety is contained in the New Product Data Sheet (NPDS) available for this product.

Handling/Storage/Disposal

This LiTMP formulation is Flammable and Corrosive. Therefore, LiTMP solutions should be used only in a closed system under argon or nitrogen. Where personal contact can occur, face shield, gloves, and an approved respirator should be worn. Precautions should be taken to prevent exposing this product to air or water in any form. Containers of LiTMP should be stored away from heat, sparks or open flame, preferably in fire-resistant buildings. Containers should be checked regularly for leaks. Any leaking container should be moved to a dry, well-ventilated area and the contents transferred to another approved container. Spills should be abandoned by all but persons wearing protective equipment. Contain spill with an absorbent. For large spills, dike the area to prevent spreading, and cover with an organic solvent absorbent. Collect the spent absorbent in steel drums and dispose in accordance with local disposal regulations. Neutralize and flush area with water.