



# Lupranate<sup>®</sup> M

## 4,4' Diphenylmethane Diisocyanate

Lupranate M Isocyanate, a solid at room temperature, is essentially pure 4,4'-diphenylmethane diisocyanate, having a functionality of 2.0. Lupranate M Isocyanate is used in the isocyanate component for the preparation of elastomeric and thermoplastic polyurethanes, flexible and semi-flexible integral skin foams, adhesives, sealants and coatings.

### TYPICAL PROPERTIES

Appearance .....	white to light yellow solid or liquid
NCO content, wt.% .....	33.5
Melting Point, °C .....	38.5
Purity, wt.% .....	99.5
Viscosity @ 25°C, cps .....	33
Hydrolyzable chlorine, ppm .....	< 20
Flash point, °C (COC) .....	199
Density @25°C, g/cm <sup>3</sup> .....	1.22
Initial boiling point, 5mm Hg, °C .....	190
Vapor Pressure @25°C, mm Hg .....	0.0003
2,4' Isomer, wt.% .....	2.0

### Storage

Lupranate M Isocyanate is available in liquid form in heated tank trucks or as a solid in drums. The product is moisture sensitive and will yellow when exposed to air, especially under the influence of light. Liquid Lupranate M Isocyanate should be stored within the relatively narrow temperature range of approximately 40-50°C under nitrogen for approximately 14 days. It can be stored as a solid below 5°C. Under this cold condition and if moisture and air are excluded, the product is storage stable for up to 6 months. If stored at temperatures other than those cited, dimer formation will be excessive affecting the performance of the product. At room temperature Lupranate M Isocyanate slowly forms solid dimer of diphenylmethane diisocyanate which appears as turbidity or sediment after melting. This sediment cannot be resolubilized during later processing. Therefore, storage at room temperature is not recommended. If Lupranate M Isocyanate is stored as a solid, melting for use is done by rolling the drum in a hot air oven at 80-100°C. The drum contents should not be heated above 70°C to minimize dimer formation.

### Warning

Heating by electrical means is not recommended due to the danger of local overheating, which would result in dimer formation. Melting Lupranate M Isocyanate in a water bath is not recommended because of potential danger of the isocyanate reacting with water in case of drum leakage. Rolling the drum in atmospheric steam is an alternate procedure that can be used provided that care is taken to ensure that the drum does not leak.

### In case of chemical emergency:

Call CHEMTREC 800-424-9300 or BASF (800-832-HELP) day or night for assistance and information concerning spilled material, fire, exposure and other chemical accidents. Outside the U.S., call (703) 527-3887.

## Attention:

This product is sold solely for use by industrial institutions. Refer to our Safety Data Sheet (SDS) regarding regulatory compliance, safety, hazards, spill procedures and disposal of this product. An SDS as well as additional information on BASF urethane chemicals may be obtained by telephoning BASF Corporation, Urethane Customer Service at (877) 297-3322 or faxing (734) 324-6866.

## Important:

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