

Lupranate[®] MS

4,4' Diphenylmethane Diisocyanate

Lupranate[®] MS, a solid at room temperature, is essentially pure MDI and has a functionality of 2.0. Lupranate[®] MS 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. The special stabilizer in Lupranate[®] MS isocyanate does not permit use in food-contact applications. Lupranate[®] MS is the product of choice for low volume applications where light color of the finished product is required.

TYPICAL PROPERTIES

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|-----------------------------------|---------------------------------------|
| Appearance | water white to yellow solid or liquid |
| Flash point, °C (COC) | 199 |
| Density @ 25°C, g/cm ³ | 1.22 |
| Initial boiling point, 5mm Hg, °C | 190 |
| Nominal functionality | 2 |
| Vapor Pressure @ 25°C, mm Hg | < 0.00001 |
| NCO content, wt. % | 33.5 |
| Hydrolyzable chlorine, ppm | < 20 |
| Purity, wt. % | 99.5 |
| 2,4' Isomer, wt. % | 2 |



BASF Corporation is fully committed to the Responsible Care[®] initiative in the USA, Canada, and Mexico. For more information on Responsible Care[®] go to:

U.S.: www.basf.us/responsiblecare_usa

Canada: www.basf.us/responsiblecare_canada

México: www.basf.us/responsiblecare_mexico

BASF Corporation

1609 Biddle Avenue
Wyandotte, MI 48192

Phone: 734-324-6100

<https://polyurethanes.basf.us>

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STORAGE

Lupranate[®] MS Isocyanate is available as a liquid 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[®] MS Isocyanate should be stored within the relatively narrow temperature range of approximately 40-50°C under nitrogen up to approximately 14 days. It can be stored as solid below 0°C. Under this cold condition and if moisture and air are excluded, the product is storage stable for 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[®] MS 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 stored as a solid, melting is done by rolling the drum in a hot air oven at 80- 100°C. Drum contents should not be heated above 70°C to minimize dimer formation.

WARNING

Excessive heating or prolonged heating at 80-100°C may cause dangerous pressure build-up. Heating by electrical means is not recommended due to the danger of local overheating, which would result in dimer formation. Melting in a water bath is not recommended because of the 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 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 visiting polyurethanes.basf.us.

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