

# Lupranate<sup>®</sup> MM103 BMBcert<sup>™</sup> M1 Isocyanate

Modified MDI  
ISCC PLUS<sup>2</sup> Certified



*Mass balanced products support and accelerate the substitution of virgin/fossil feedstock with alternative feedstock. BMB products offer the same chemical properties as their conventional equivalents but contribute to saving conventional resources and contribute to reducing CO<sub>2</sub> emissions.*

Lupranate<sup>®</sup> MM103 BMBcert M1 Isocyanate is a liquid carbodiimide modified 4,4'-diphenylmethane diisocyanate. Lupranate<sup>®</sup> MM103 BMBcert M1 Isocyanate serves as the isocyanate component in the production of microcellular urethane elastomers. This product also may be used in combination with high molecular weight polyether polyols for the preparation of high grade flexible, semi-flexible and integral skin foam. It is also used in the preparation of prepolymers for elastomer, sealant, adhesive and coating applications.

## TYPICAL PROPERTIES

Appearance	light yellow liquid
NCO Content, wt%	29.5
Viscosity @ 25 °C, cP	40
Nominal Functionality	2.2
Vapor Pressure @ 25 °C, mm Hg	< 0.00001
Specific Gravity @ 25 °C, g/cm <sup>3</sup>	1.22
Hydrolyzable chlorine, ppm	< 300



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**BASF Corporation**  
 1609 Biddle Avenue  
 Wyandotte, MI 48192  
 Phone: 734-324-6100  
<https://polyurethanes.basf.us>

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## Modified MDI

### STORAGE

Once a container has been opened, care should be taken to exclude moisture. The most favorable temperature for storage is 25-35 °C. If stored at higher temperatures, or if moisture is not excluded, an undesirable increase in viscosity will occur. Below 20 °C solid crystals may form and settle out, which can alter the performance of the product. The solid crystals contain pure MDI and in this solid form may exhibit the same dimerization characteristics as pure MDI. Unless prompt action is taken to melt the product, subsequent dimerization will proceed and may deteriorate the clarity and assay of the product. Melting the crystals 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. The shelf life of Lupranate<sup>®</sup> MM103 BMBcert M1 Isocyanate is six months if the temperature is maintained at 25-35 °C and moisture is excluded.

### SHIPPING INFORMATION

This product is supplied in tank cars, tank trucks, totes and drums.

### HANDLING RECOMMENDATION

Excessive or prolonged heating at 70-100 °C may cause dangerous pressure build-up. Heating by electrical means is not recommended due to the danger of localized overheating, which would result in dimer formation. Melting in a water bath is not recommended because of potential danger of the isocyanate reacting with water in case of drum leakage. Care should be taken when heating the drum to ensure that it does not leak.

### HAZARD STATEMENT

MDI products are classified as harmful if inhaled. It causes skin irritation and serious eye irritation. It may cause respiratory irritation. It may cause sensitization by inhalation and skin contact. It may cause damage to organs through prolonged or repeated inhalation exposure. Before processing the product, we recommend reading the safety data sheet. Labelling, transportation, storage, processing, waste treatment and disposal must comply with nation regulations. Occupational exposure limits are to be observed. To avoid accidents, the residual product in the drums must be handled with care. Any water or moisture which is allowed to enter the drum will react with the MDI and release carbon dioxide. Unless action is taken to prevent moisture entry or gas entrapment, the drums will become pressurized and may rupture. For further information please consult our "MDI Handbook".

### 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).

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**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](http://polyurethanes.basf.us).

**Important:** While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product for your particular purpose prior to use. **NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, INFORMATION, DATA OR DESIGNS PROVIDED BE CONSIDERED A PART OF OUR TERMS AND CONDITIONS OF SALE.** Further, you expressly understand and agree that the descriptions, designs, data, and information furnished by BASF hereunder are provided gratis and BASF assumes no obligation or liability for the description, designs, data and information given or results obtained, all such being given and accepted at your risk.