

### Technical Data Sheet

## Lupranate<sup>®</sup> 223 Isocyanate

Lupranate<sup>®</sup> 223 Isocyanate is a low viscosity derivative of both pure-MDI and polymeric-MDI. With a functionality of approximately 2.2, this isocyanate can be formulated into applications that require good flow and working time such as 1- and 2-component adhesives and coatings.

#### **TYPICAL PROPERTIES**

Appearance	light brown liquid
NCO Content, wt%	27.5
Viscosity @ 25 °C, cP	140
Nominal Functionality	2.2
Vapor Pressure @ 25 °C, mm Hg	0.0002
Specific Gravity @ 25 °C, g/cm3	1.20



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**BASF** Corporation

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# Lupranate<sup>®</sup> 223 Isocyanate

#### STORAGE

Once a container has been opened, care should be taken to exclude moisture. The most favorable temperature for storage is 20-30 °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 70-90 °C. The drum contents should not be heated above 60 °C to minimize dimer formation. The shelf life of Lupranate<sup>®</sup> 223 Isocyanate is six months if the temperature is maintained at 20-30 °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 eve irritation. It may cause respiratory irritation. It may cause sensitization by inhalation and skin contact. It may cause damage to organs though 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).

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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