Product Information

CM – Monomers Division

TECHNICAL DATA SHEET

Document name:	TDS_Lupranat MM103_10215353
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Product:	**Lupranat® MM 103**
PBG-No.:	10215353
Chemical Name:	Isocyanate component

Chemical nature

Lupranat MM 103 is a carbodiimide-modified diphenylmethane-4,4-diisocyanate (MDI). The average functionality is about 2.2.

Applications

Lupranat MM 103 is used for the production of flexible polyurethanes such as microcellular elastomers, flexible and semi-rigid foams as well as for compact RIM parts. It is also used for the manufacture of coatings and adhesives.

Delivery

The delivery is by road tankers, in containers containing 1000 l and in non-returnable drums. Transport temperatures should be between 20 °C and 40 °C. If the material is in transit for more than 4 days, a transport temperature of 20 °C to 30 °C is recommended. Temperatures below 20 °C should be avoided.

Typical properties

Appearance: bright yellow, clear liquid

Acidity as HCl	4	mg/kg	BASANT 6788
Density at 25 °C	1.22	g/cm³	BASANT 1413
NCO-Content	29.5	g/100 g	BASANT 7952
Viscosity at 25 °C*	40	mPa·s	BASANT 1334

Storage

Lupranat MM 103 must be protected from moisture. The ideal storage temperature is 20 °C to 30 °C. Under these conditions and when moisture is excluded, the shelf life of Lupranat MM 103 is at least six months. Drums and IBC‘s must be kept airtight. Storage tanks should be blanketed with dry air or with nitrogen.

Longer storage leads to a lasting increase of viscosity depending on the temperature. In extreme cases a precipitate may form which cannot be removed by heating.

Storage for longer periods below + 20 °C can lead to partial crystallization.

Crystallized material must be melted out immediately by short term (max. 48 hours) heating. The product temperature must not exceed 60 °C. Local overheating must be avoided, as Lupranat MM 103 can possibly react with the formation of gas as consequence.
Rolling of the drums in a hot air oven is the recommended method of dissolving the crystals. After melting out, the contents of the drum must be thoroughly mixed.

More detailed information on transport and storage of isocyanates is given in the ISOPA-Guidelines "For Safe Loading / Unloading Transportation Storage of TDI and MDI in Bulk" and "For the Safe Transportation, Unloading & Storage of Packaged TDI & MDI".

Safety advice and environmental protection

Transportation, storage, processing, waste treatment and disposal must comply with national regulations.

Occupational exposure limits are to be observed.

Lupranat MM 103 is 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.

National regulations for exposure limits and labelling must also be observed. Before processing the product, we recommend reading the safety data sheet.

In order 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 Lupranat MM 103 and release carbon dioxide. Unless action is taken to prevent moisture entry or gas entrapment, the drums will become pressurized and could rupture.

This BASF material may not be used for the manufacture of materials and articles intended to get in contact with food or drinking water.

If it is intended to use BASF materials for the manufacture of medical devices, toys or consumer goods (e.g., products which will come into contact with the skin), please contact your BASF's Sales Manager and Product Stewardship department.

Disposal of drums

Residues of MDI remaining in drums must be decomposed. Please contact our local agencies for further information on national disposal regulations.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed.