

## Chemical nature

Lupranat MX 119/1 is a mixture of 2,4' and 4,4'-diphenylmethane diisocyanate (MDI).

## Applications

Lupranat MX 119/1 is used together with other isocyanates for the production of flexible foams as well as adhesives and coatings.

## Typical properties

Appearance at room temperature:	white crystalline solid		
Appearance as a liquid:	colourless		
Molar mass	250	g/mol	
NCO-content	33.6	g/100 g	ASTM D 5155
2,4'-isomer	28.5	g/100g	GC
Acidity as HCl	5	mg/kg	ASTM D 1638
Density at 40 °C	1.21	g/cm <sup>3</sup>	DIN 51 757

## Delivery

The delivery is by road tankers. Transport temperature should normally be the same as storage temperature. The temperature should be between 35 °C and 42 °C.

## Storage

Lupranat MX 119/1 is sensitive to moisture. The product slowly forms dimeric diphenylmethanediisocyanate, which is seen as a precipitate and which might influence the properties of the final product if used for special applications. This dimer cannot be removed by heating.

Liquid Lupranat MX 119/1 can be stored up to about a fortnight only in a narrow temperature range of about 35 °C to 40 °C and under a dry nitrogen blanket. It is essential to be able to accurately control the temperature of the storage tank and associated pipework to avoid cold spots. Consequently, the recommendation is to keep Lupranat MX 119/1 in circulation via a double pipe arrangement in which a heating medium surrounds the inner pipe which carries the Lupranat MX 119/1. The temperature of the heating medium should be strictly controlled for each line whereas water, glycol and its mixings must not be contained in the heating medium. Trace heating should be used at the bottom and in the walls of the storage tank.

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**

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

Lupranat MX 119/1 is classified as harmful if inhaled. It causes skin irritation and serious eye irritation. It may cause respiratory irritation. It may cause sensitisation by inhalation and skin contact. It is suspected of causing cancer. It may cause damage to organs through prolonged or repeated inhalation exposure.

Before processing the product, we recommend reading the safety data sheet. For further information consult our Technical Information leaflet "Safety and Precautionary Measures for the Processing of Polyurethane Systems".

If it is intended to use BASF materials for the manufacture of toys or consumer goods (e. g. products which will come into contact with foodstuffs or with the skin, toys) or medical products, national and international regulations have to be observed. Where no regulations exist, consumer goods or medical products must at least comply with European legislation. We recommend contacting our Sales and our Ecology and Product Safety departments.

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