

## Product Information

## CM – Monomers Division

### TECHNICAL DATA SHEET

Document name: TDS\_Lupranat M20S\_10312468  
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Product: **Lupranat® M20S**  
PBG-No.: 10312468  
Chemical Name: Isocyanate component

**Chemical nature** Lupranat M20S is a solvent-free product based on 4,4'-diphenylmethane diisocyanate (MDI) containing oligomers of high functionality and isomers. The average functionality is 2.7.

**Applications** Lupranat M20S is principally used for the manufacture of insulating foams and higher density rigid foams. It is also used for the production of semi-rigid foams in the automotive industry and sound insulation as well as for packaging foams, casting materials, binders and adhesives.

**Delivery** The delivery is by road tankers, in containers containing 1200 kg and in non-returnable drums 250 kg. If delivered in road tankers, a delivery temperature  $\geq 10^{\circ}\text{C}$  is recommended to limit the unloading time. If delivered in drums, extreme cold shocks and storing in direct sunlight should be avoided.

**Typical properties** Appearance: brown liquid

Acidity as HCl	75	mg/kg	BASANT 6788
Density at 25 °C	1.22	g/cm <sup>3</sup>	BASANT 1413
NCO content	31.5	g/100 g	BASANT 7952
Viscosity at 25 °C	220	mPa·s	BASANT 1334
Specific heat at	20 °C	1.4 kJ/(kg · K)	
	80 °C	1.6 kJ/(kg · K)	

**Storage** Lupranat M20S must be protected from moisture. The ideal storage temperature is 20 to 25 °C. Under these conditions and when moisture is excluded, the shelf life of Lupranat M20S is at least six months.

Drums 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 will not be removed by heating.

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If the product becomes cold the viscosity will increase. This may lead to problems in processing. Storage for longer periods below 0 °C can lead to partial crystallization.

Crystallized material must be melted out immediately by short term heating. The product temperature must not exceed 60 °C. Local overheating must be avoided, as Lupranat M20S will decompose with the formation of gas at temperatures above 230 °C.

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.

Lupranat M20S is classified as harmful if inhaled. It is irritating to the eyes, respiratory system and skin and 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 / IBC must be handled with care. Any water or moisture which is allowed to enter the drum will react with Lupranat M20S 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/IBCs must be decomposed. Please contact our local offices 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

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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.