Desmodur® 2460 M

Characterization	Monomeric diphenylmethane diisocyanate with high 2,4'-isomer content and stabilized against discoloration during storage Formulation of prepolymers for use in one- and two-component polyurethane coatings and adhesives and in related applications. Desmodur® 2460 M is an isomeric mixture of monomeric diphenylmethane diisocyanate that is liquid at temperatures above 20 °C. Storage and handling are greatly simplified compared to 4,4' isomer that is solid at room temperature (Desmodur® 44 M, Desmodur® 44 MC).
Form supplied	Solvent-free, colorless to yellowish liquid of low viscosity at temperatures above 20 °C that crystallizes at lower temperatures

Specification

Property	Value	Unit of measurement	Method
2,2'-MDI	max. 0.8	%	MDI-01-06
2,4'-MDI	55.0 ± 5.0	%	MDI-01-06
4,4' MDI	min. 39.2	%	MDI-01-06
Hydrolysable chlorine	max. 50	mg/kg	MDI-01-04

Other data*

Property	Value	Unit of measurement	Method
NCO content (theoretical)	33.6	% by wt.	
Density at 25 °C	1.21	g/cm^3	DIN 51 757
Vapor pressure at 20 °C (MDI)	$< 10^{-5}$	hPa	
Phenyl isocyanate content	max. 10	ppm	2011-0489801-95
Viscosity at 25 °C	12 ± 2	mPa·s	2011-0313703-95
Degree of purity (MG 250)	min. 99.5	% by wt.	2011-0248603-94

*These values provide general information and are not part of the product specification.

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Processing

It must be ensured that the containers - including those that are empty - are kept sealed. Above all, contact with water must be prevented as it reacts with Desmodur® 2460 M to form polyureas and carbon dioxide. During storage, sample withdrawal, transfer and processing of Desmodur® 2460 M, the ingress of water in any form (damp containers, aqueous solvents, moist air) must be prevented as otherwise the formation of carbon dioxide may cause a dangerous increase in pressure in the tanks and containers. Furthermore, the formation of polyureas in Desmodur® 2460 M may cause turbidity and possibly solid deposits which may then block filters, pumps and pipelines.

Storage

- Storage in original sealed Bayer MaterialScience container.

- Recommended storage temperature: 20 - 40 °C.

- Protect from moisture, heat and foreign material.

General information: The product is sensitive to moisture and should therefore be stored in its sealed original containers. Prolonged storage at temperatures above 45 °C results in a deterioration in quality as the product becomes increasingly turbid owing to the formation of a sediment (dimers) that is not readily soluble. Storage at too low a temperature results in crystallization which starts at around 15 °C. The storage of the crystallized product above 5 °C must be avoided as this promotes the formation of non-meltable dimers. As a result, the product can no longer be fully melted after around 3 weeks. To prevent crystallization, it must be ensured that the product does not cool to below 20 °C. Upon receipt, samples of the product should be tested for crystallization. If crystallization has occurred during transportation or storage, the product must be remelted immediately. On no account should the temperature during melting (material temperature) exceed 70 °C nor should the time needed to reliquefy the product be exceeded as this will greatly promote the formation of non-meltable dimers. It should be ensured that the entire content of the container is remelted and homogenized. The container must then be closed immediately and its content cooled to and kept at the standard storage temperature (20 – 25 °C). If the product is in a partially crystallized state for a brief period, there will be no significant effect on the product quality. Only the storage stability may be reduced slightly, i.e. remelted product should be used as soon as possible.

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Storage time	Bayer MaterialScience represents that, for a period of six months following the day of shipment as stated in the respective transport documents, the product will meet the specifications or values set forth in section "specifications or characteristic data" above, what ever is applicable, provided that the product is stored in full compliance with the storage conditions set forth in and referenced under section "storage" above and is otherwise handled appropriately. The lapse of the six months period does not necessarily mean that the product no longer meets specifications or the set values. However, prior to using said product, Bayer MaterialScience recommends to test such a product if it still meets the specifications or the set values. Bayer MaterialScience does not make any representation regarding the product after the lapse of the six months period and Bayer MaterialScience shall not be responsible or liable in any way for the product failing to meet specifications or the set values after the lapse of the six months period.
Labeling and REACH applications	This product data sheet is only valid in conjunction with the latest edition of the corresponding Safety Data Sheet. Any updating of safety-relevant information – in accordance with statutory requirements – will only be reflected in the Safety Data Sheet, copies of which will be revised and distributed. Information relating to the current classification and labeling, applications and processing methods and further data relevant to safety can be found in the currently **valid Safety Data Sheet**.
Disposal	Please pay attention to the current safety data sheet.

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