Technical Data Sheet

Revision Date：2022-11-7 NO. WHPU _0007

Name：WANNATE®MDI-50 Version：7.0

Application

WANNATE® MDI-50 is a mixture of 2,4’ and 4,4’ diphenylmethane diisocyanates, or called 2,4’ rich isocyanate. It is a clear, colorless to pink liquid at ambient temperatures.

Due to the different reactivity between 2,4’ and 4,4’ MDI, WANNATE® MDI-50 provides better flowability for the production of injection molding. WANNATE® MDI-50 can be widely used in the production of various PU elastomers, adhesives, paint and automotive parts. It also can be used as a substitute for TDI in the production of flexible PU foam, which will reduce productive cost and environmental pollution and improve handling conditions.

Typical Physical and Chemical Properties

Test Item(s)	**Specification(s)**
Appearance	Colorless to pink liquid
MDI Purity /%	≥99.6
2,4'-isomer/%	50.0 ~ 54.0
4,4'-isomer/%	44.5 ~ 49.0
Chromatic Number(APHA)	≤50
Cyclohexane insoluble/%	≤0.200
Crystallization point /℃	≤15.0
Hydrolysable chlorine/%	≤0.0050

Package(s)

210L iron drums, 235kg/drum

Storage

Container: Freshly manufactured WANNATE® MDI-50 is a clear liquid at room temperature. It tends to turn yellow upon exposure to air and light. As WANNATE® MDI-50 is a reactive chemical, reaction with atmospheric moisture occurs easily and leads to the formation of insoluble urea and CO_2 gas which can lead to pressure build-up in closed containers and increases in the viscosity of the product. Containers must therefore be absolutely dry and carefully sealed after congested with dry nitrogen.

Temperature: Extended storage will result in insoluble dimer. It is best to store at 15℃-40℃.

Recommended Melting Conditions

Crystallization will occur if WANNATE® MDI-50 is stored below 15℃. To minimize the formation dimer, it is recommended to melt solid WANNATE®MDI-50 quickly and evenly, such as using a forced air oven equipped with rollers in 80-100℃. On no account should the temperature during melting (product temperature) exceed 70℃. Make sure the heating is even and there is no leakage during heating. To avoid localized heating, electrical heating is not recommended. Note that the product will decompose and give off gas above 230℃. Water heating or steam heating is not recommended either since water will react with MDI if there is any leakage. Only when the container is intact could water be used to melt the product. The container should be wiped dry when done.

Shelf Life

Under recommended storage conditions, the shelf life of WANNATE® MDI-50 is 6 months since the date of production.

For more information about safety and environment, please refer to our SDS or contact our customer service center.

Version information:

Date of first issue : June 6 ,2013
Date of 1st revise: Feb 6, 2015 Reason for revision : The need of product classification
Date of 2nd revise : May 5, 2015 Reason for revision: A change of company address
Date of 3rd revise : Aug.18, 2015 Reason for revision: Unified the template of TDS
Date of 4th revise: May 31, 2016 Reason for revision: Change of product standard.
Date of 5th revise: June 30, 2017 Reason for revision: Change of company LOGO.
Date of 6th revise:Dec 7,2022, Reason for revision: Change of company address

For further information please contact us:

Address: Wanhua Chemical Group Co., Ltd.
No.3, Sanya Rd, YEDA, Yantai, 264006, China
Tel: +86 4009-600-309
Web-site: http://www.whchem.com

The information provided here is for reference only. Wanhua provides no express or implied warranty as to the suitability of any product for any specific application. The product specification will be provided in the quality certificate or in the contract. Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. We have no control over what another party does with the material and we cannot take any responsibility for another party's action. For more product information, please contact our customer service center.