Bayer MaterialScience

Product Information

MONDUR CD

Modified Monomeric MDI

CAS No. 25686-28-6
Product Code: C503

Effective date: 2/9/04

Description

Mondur CD is a modified 4,4-diphenylmethane diisocyanate (MDI) which is liquid at room temperature. It is typically used as the isocyanate component for the production of polyurethane foams and elastomers. As with any product, use of Mondur CD in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

Product Specifications

Property	Value Units
NCO Content, wt.%	29.0 – 30.0
Viscosity* at 25°C, mPA•s	50 max.

* Brookfield viscosity method

Typical Properties*

Property	Value
Appearance	slightly yellow liquid
Specific Gravity at 25°C	1.22
Flash Point - COC, °C	200
Freezing Point, °C	10 - 15

Storage and Handling

Mondur CD must be stored in tightly sealed containers and protected from moisture. Like all isocyanates, Mondur CD will react with water to form ureas and carbon dioxide. The generation of carbon dioxide in sealed containers can lead to a dangerous pressure build-up resulting in deformation and/or rupture of the container. Once a container has been opened, care should be taken to exclude moisture. This can be accomplished by padding the material with dry nitrogen and tightly sealing the container after each use.

To maintain the quality of the product, Mondur CD should be stored between 20 and 30°C (68 and 86°F) and protected against moisture. Under these conditions, Mondur CD will remain clear with a shelf life of at least six months from the manufacturing date. Storage for long periods at temperatures in excess of 30°C (86°F) leads to deterioration in quality, with the product becoming increasingly turbid due to the formation of dimer. Storage at too low a temperature, even for short periods of time, can result in the formation of solid MDI crystals, which occurs at approximately 15°C (59°F). Prolonged storage of frozen or partially frozen Mondur CD will result in undesirable dimerization that could make the product unusable. During the winter months, appropriate precautions must be taken during shipment and storage of this product.

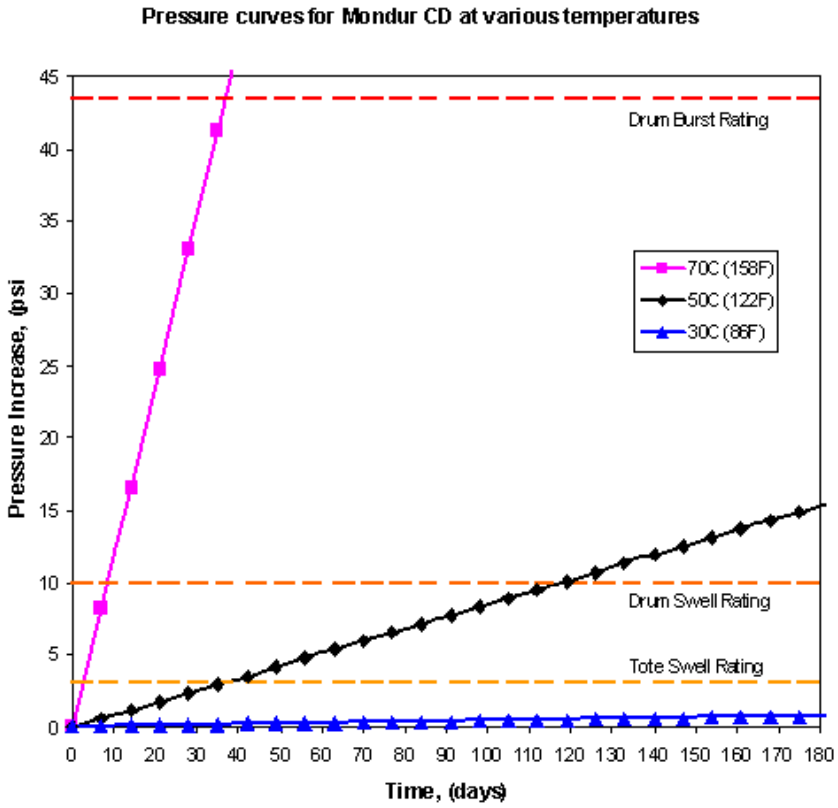
If solid crystals form due to exposure of Mondur CD to low temperatures, it is possible to reliquify the product. Melting the crystals is accomplished by heating the product in a hot air oven for the minimum time necessary to render it clear. To minimize dimer formation, the temperature of the product should not exceed 70°C (158°F). Agitation or drum rollers are recommended to homogenize the contents of the container. The product should remain clear upon cooling to the recommended storage temperature.

Warning

Prolonged exposure of Mondur CD to temperatures in excess of 70°C (158°F) may cause dangerous pressure build-up, resulting in the deformation and/or rupture of sealed containers. To prevent excessive local over-heating, avoid the use of electrical heat tape and open flames when heating this product.

Pressure curves for Mondur CD at various temperatures are shown below to provide the customer with additional information.

** These items are provided as general information only. They are approximate values and are not part of the product specifications.*



Caution

When producing prepolymers, Mondur CD should not be used in combination with amino-polyols, or polyols containing high residuals of basic materials. As with any product, the use of Mondur CD should be evaluated for a given application by the customer to determine suitability.

Note: The information contained in this bulletin is current as of February 2004. Please contact Bayer MaterialScience to determine whether this publication has been revised.

Health and Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling Mondur CD. Before working with this product, you must read and become familiar with the available information on its hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets and product labels. Consult your Bayer MaterialScience representative or contact Bayer's Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

Bayer MaterialScience LLC

100 Bayer Road • Pittsburgh, PA 15205-9741 • Phone: 1-800-662-2927 • www.BayerMaterialScienceNAFTA.com

Sales Offices

17320 Redhill Avenue, Suite 175, Irvine, CA 92614-5660 • 1-949-833-2351 • Fax: 1-949-752-1306
1000 Route 9 North, Suite 103, Woodbridge, NJ 07095-1200 • 1-732-726-8988 • Fax: 1-732-726-1672
2401 Walton Boulevard, Auburn Hills, MI 48326-1957 • Phone: 1-248-475-7700 • Fax: 1-248-475-7701

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