



ONGRONAT® ISOCYANATES

ONGRONAT® 3600

# TECHNICAL DATA SHEET

## Product

ONGRONAT® 3600 is a mixture of 4,4'-methylenediphenyldiisocyanate and 2,4'-methylene-diphenyldiisocyanate.

## Appearance

ONGRONAT® 3600 is a colourless transparent liquid, free from any solids.

## Application area

With suitable polyols it can be used as the isocyanate component for elastomers, adhesives, coatings, fibres, flexible and semi-flexible integral foams and thermoplastic polyurethanes.

## Typical property range

NCO content	: min. 33.4	wt%	ASTM D5155
Purity	: min. 99.5	%	ASTM D5155
2,4' isomer content	: 48 - 52	wt%	BorsodChem method PAK 20
Hydrolysable chlorine	: max. 250	ppm	BorsodChem method PAK 15
Colour	: max. 150	APHA	ASTM D1209

## Other physical properties

Density (at 25 °C)	: 1.20	g/cm <sup>3</sup>
Viscosity (at 25 °C)	: 13 - 15	mPa.s
Flash point	: min. 200	°C
Melting point	: 13 - 14	°C

## Transport and packaging

In tank road tankers, 1000 l containers, 250 kg non-returnable metal drums, or in metal cans under a nitrogen blanket.

## Storage

ONGRONAT® 3600 preserves its quality at room temperature (20-35°C) under a nitrogen blanket (dew-point -40°C) for one month.

During storage below 20 °C the quality of ONGRONAT® 3600 may deteriorate.

Product must not be stored above 35°C because its colour can change and unwanted dimerization may occur which leads to decrease of the NCO content.



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The product must not come into contact with water. In order to prevent water (moisture) ingress, nitrogen is used usually (dew point  $-40\text{ }^{\circ}\text{C}$ ) to displace the air from the drums or containers. It is not advised to use dry air as an inert blanket for the above purpose because due to contact with air or oxygen the colour of the product can change to yellow due to by oxidation. Carbon-dioxide is soluble in isocyanate, so it cannot be used as an inert gas either.

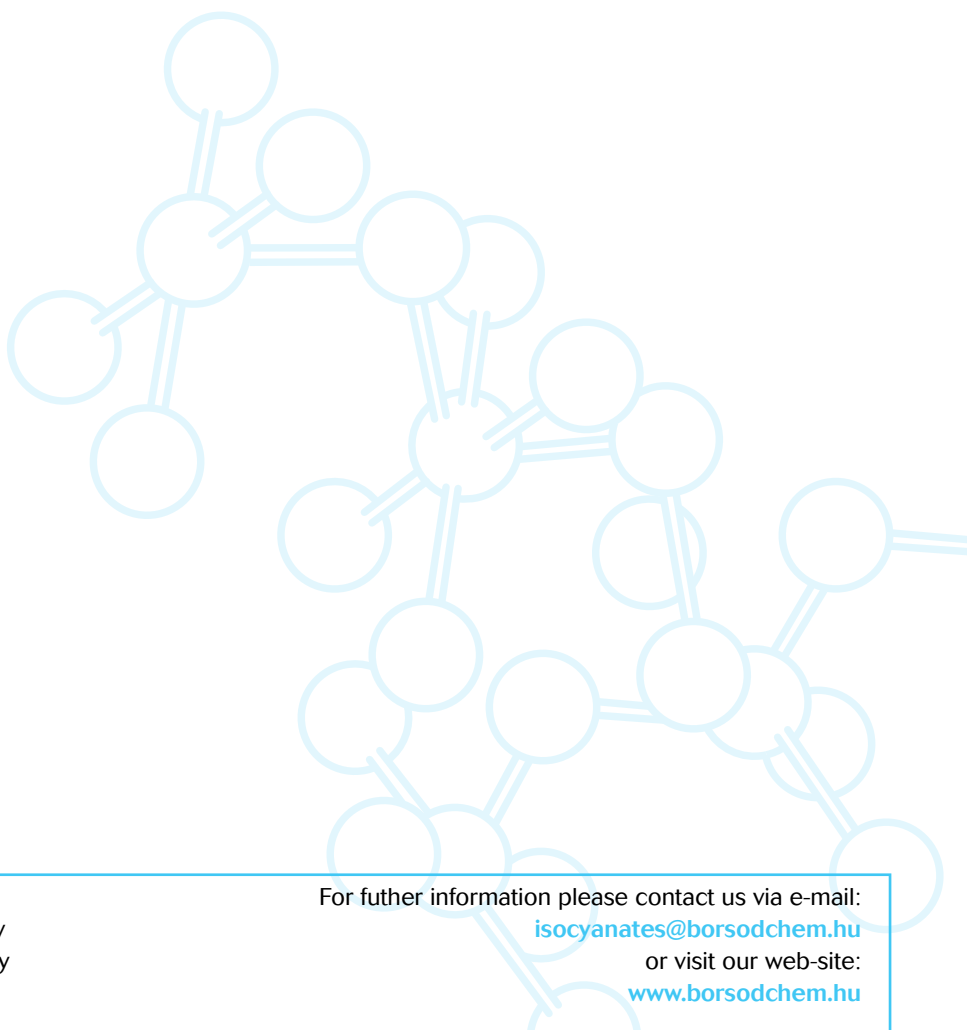
## Safety precautions

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All activities related to isocyanate handling are potential sources of danger; therefore special care must be taken when working with it.

Handle the material with care. Avoid contact with water and damp. Avoid contact with skin and eyes. Do not inhale the vapours of the product.

Detailed safety information available in the specific Material Safety Data Sheet.



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