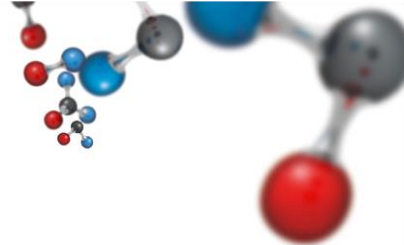


TECHNICAL DATA SHEET (TDS)

ONGRONAT® 1100



- **Product description:** ONGRONAT® 1100 consists of 4-methyl-m-phenylene diisocyanate
- **Appearance:** Solid, colourless or mildly yellow crystals at 20 °C, 1013 hPa, colourless or mildly yellow liquid at 25 °C, 1013 hPa
- **Features & Benefits of the end product produced using ONGRONAT® 1100:** Water & Stain resistance, Hardness, Durability, Excellent adhesion, High gloss
- **Industry:** Construction; Furniture, Bedding & Decoration; Transport; Wood
- **Applications:** Adhesives & binders; coating and sealants, paints & coatings

SPECIFICATIONS

Property	Value	Dimension	Test Method
Purity	min. 99.5	wt%	BorsodChem Method TVM-380
2,4 isomer content	min. 98.5	wt%	BorsodChem Method TVM-340
Acidity (as HCl)	max. 10	ppm	BorsodChem Method TVM-337-3
Hydrolysable chlorine (Cl)	max. 25	ppm	BorsodChem Method TVM-337-4

OTHER PROPERTIES*

Property	Value	Dimension
Total Chlorine content	max. 150	ppm
Colour	max. 15	APHA
Solidification temperature	21 - 22	°C
Density (at 25°C)	1.21	g/cm ³
Viscosity (at 25 °C, dynamic)	3	mPa.s

*Values given in the „OTHER PROPERTIES” section are only typical ones and they are not to be considered as part of the specification.

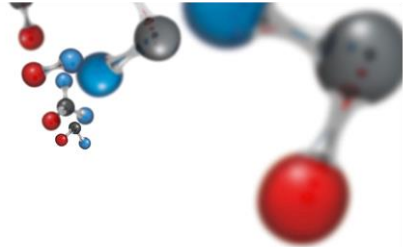
PACKING, STORAGE & TRANSPORT

Transport and packing: ONGRONAT® 1100 can be delivered in mobile tanks, road tankers or non-returnable metal drums under nitrogen blanket. ONGRONAT® 1100 is loaded in the temperature range of 30 – 36 °C in the case of bulk delivery. Please note that based on the distance of the destination the delivery temperature may differ from the loading temperature, but still remains in the range of 30 - 40 °C. In the case of intermodal delivery the above delivery temperature can not be warranted. ONGRONAT® 1100 is delivered according to the above mentioned delivery temperature range in the lack of any special requirement. Recommended storage temperature: above the solidification temperature but below 40 °C. To avoid chemical reaction with water, contact with atmospheric humidity should be prevented. Since atmospheric oxygen may cause discoloration, application of nitrogen blanketing in the storage tank is recommended. CO₂ should not be used as an inert gas, since it dissolves well in

isocyanates. During the loading and the storage of the drummed products the instructions of ADR, RID, IMDG and the recommendation of ISOPA have to be strictly observed. Besides the strict observation of the above instructions related to its storage and handling, the product preserves its quality for 12 months from the date of its production. In case of delivery in drums the colour cannot be warranted! If freezing occurs warming up the solidified product needs to be done with care under intensive continuous agitation. Quality features of re-heated ONGRONAT® 1100 do not change. Discoloration occurs only after the prolonged effect of high temperature.

TECHNICAL DATA SHEET (TDS)

ONGRONAT® 1100



SAFETY PRECAUTIONS

Handle the material with care. Avoid contact with water and moisture. Reaction with water always results formation of CO₂ and therefore increase of pressure in the closed storage

container. Avoid contact with skin and eyes. Do not inhale the vapours of the product. Detailed safety information available on the www.borsodchem-group.com website and in the specific Safety Data Sheet.

Version: English
Date: 18.01.2021
Technical Data Sheet (TDS)
ONGRONAT® 1100

www.borsodchem-group.com

This information is based on our most recent knowledge. However, the application and processing of the material after sale is beyond our control and we cannot assume responsibility for use of this material outside BorsodChem premises. The user is obliged to check the suitability of this material for the intended use and accepts sole responsibility for compliance with any legal requirements relating to its use. This document does not constitute a warranty or guarantee.



Manufactured by:

BorsodChem Zrt.
Bolyai tér 1
H-3700, Kazincbarcika
HUNGARY
Phone: +36-48-511-211
Fax: +36-48-511-511