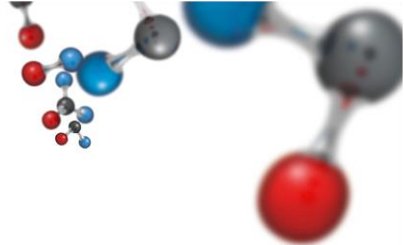


TECHNICAL DATA SHEET (TDS)

ONGRONAT® TR 2000



- **Product description:** ONGRONAT® TR 2000 is polymeric MDI with average functionality of 2.6 - 2.7
- **Appearance:** Solvent free dark-brown liquid of low viscosity at room temperature
- **Features & benefits of the end product produced using ONGRONAT® TR 2000:** Light weight, Efficient use of space, High thermal performance; Energy efficiency, Controlled surface temperature
- **Industry:** Transport
- **Applications:** Refrigeration trucks & trailers

SPECIFICATIONS

| Property | Value | Dimension | Test Method |
|---------------------|-------------|-----------|---------------------------|
| NCO | 30.0 - 32.0 | wt% | BorsodChem Method PAK 155 |
| Viscosity [at 25°C] | 170 - 230 | mPa.s | ASTM D4889 |
| Acidity as HCl | max. 120 | ppm | BorsodChem Method PAK 126 |

OTHER PROPERTIES*

| Property | Value | Dimension |
|---------------------------|-------------------|-------------------|
| Density [at 25°C] | 1.23 | g/cm ³ |
| Flash point | >200 | °C |
| Vapour pressure [at 25°C] | <10 ⁻⁵ | mbar |

*Values given in the "other properties" section are only typical ones, therefore they are not to be considered as part of the specification.

PACKING, STORAGE & TRANSPORT

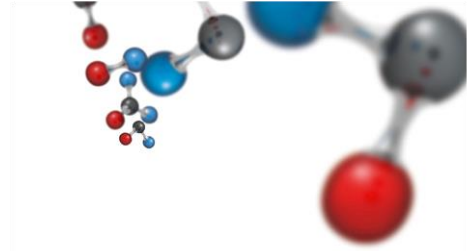
Transport and packing: ONGRONAT® TR 2000 can be loaded and transported in road tankers, 1000 l containers, 250 kg non-returnable metal drums, or in metal cans under nitrogen blanket. The loading temperature is 40-45 °C in bulk and 20-30 °C in the case of drummed product, or in intermediate bulk containers (IBCs). 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 20-45 °C delivering the product in bulk. In bulk, ONGRONAT® TR 2000 is shipped according to the above mentioned delivery temperature range in the lack of any special requirement.

Storage: It is recommended to store the product within the temperature range of 10 – 30 °C. Under these conditions the quality will be maintained for max. twelve (12) months from the date of production. Storing the product in drums or IBCs care must be taken to avoid cold shocks or overheating. (For instance overheating may be caused by the exposure of the drums or IBCs to intensive sunlight.) The material must be kept dry at all times; therefore it must be protected from water ingress and atmospheric moisture. In order to protect the

material from atmospheric moisture a dry inert gas blanket (nitrogen) with a dew point of max. -40 °C must be applied into the containers (drums, IBCs or storage tanks). Dry air is not recommended for this purpose because it causes undesirable oxidation and due to this the colour of the product may become darker. It is not recommended to use carbon dioxide (CO₂) as an inert gas either, since it is soluble in isocyanates.

TECHNICAL DATA SHEET (TDS)

ONGRONAT[®] TR 2000



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: 08.02.2019
Technical Data Sheet (TDS)
ONGRONAT[®] TR 2000

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.



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