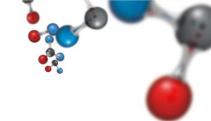
PROVISIONAL TECHNICAL DATA SHEET (TDS)

ONGRONAT® FB 5470



- Product description: ONGRONAT FB 5470 is a mixture of 4,4'-MDI with polymeric MDI and a polyether based prepolymer
- Appearance: Solvent-free, brown, high viscosity liquid at room temperature
- Industry: Furniture, Bedding & Decoration
- Applications: ONGRONAT® FB 5470 is a prepolymer that is particularly suitable to be used as a binder for rebinding recycled flexible foam particles

SPECIFICATIONS

Property	Value	Dimension	Test Method
NCO	19.0 – 21.0	wt%	BorsodChem Method PAK 155
Viscosity (at 25 °C)	550 - 850	mPa.s	ASTM D 4889

OTHER PROPERTIES*

Property	Value	Dimension
Density (at 25 °C)	1.20	g/cm ³
Flash point	>200	°C

^{*} Values stated in the range of "other properties" are only typical ones, therefore they are not to be considered as part of the specification of the product.

PACKING, STORAGE & TRANSPORT

ONGRONAT FB 5470 can be loaded and transported in road tankers, 1000 I containers (IBCs), 225 kg non-returnable metal drums, or in metal cans under nitrogen blanket. The loading temperature is 40 - 45 °C. 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. Transporting ONGRONAT® FB 5470 by the means of thermo trucks in drums or IBCs the temperature must be kept in the range of 20 - 30 °C. Therefore the exposure of the containers to cold shocks and intensive sunlight must be avoided. Please note that transporting ONGRONAT® FB 5470 by the means of normal truck in drums or IBCs the arrival temperature can not be warranted. ONGRONAT® FB 5470 is shipped according to the above temperature ranges in the lack of any special requirement.

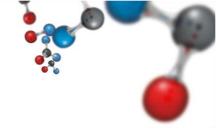
It is recommended to store ONGRONAT FB 5470 within the temperature range of 20 - 30 °C. Under these conditions ONGRONAT FB 5470 preserves its quality for max. six (6) months from the date of production. The material can also be stored within the temperature range of 15-30 °C without affecting its quality significantly. During storage below 15 °C the quality of ONGRONAT FB 5470 can deteriorate, because of the partial crystallisation of its 4,4'-methylene diphenyl

diisocyanate content. The product can be liquefied again by heating it up to 70°C as rapidly as possible in a controllable way. During this re-melting procedure sediment can be generated. If the product is not consumed immediately after re-melting, it is necessary to arrange for storing at the recommended temperature. Storage at a temperature above 30 °C is not recommended since discolouration and formation of insoluble solids (dimerization) may occur which can lead to a viscosity increase and a decrease of NCO content. Above 150 °C a slow, exothermic decomposition reaction takes place which becomes extremely fast above 250 °C, so care must be taken to avoid this thermic effect. 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 -40 °C must be used for any type of containers (drums or storage tanks). Dry air is not recommended for this purpose because it may cause oxidation and due to this, the colour of the product may become darker. Carbon dioxide (CO_2) is soluble in isocyanates, therefore it is not recommended to be used as inert gas either.



PROVISIONAL TECHNICAL DATA SHEET (TDS)

ONGRONAT® FB 5470



SAFETY PRECAUTIONS

Handle the material with care. Avoid contact with water and moisture. Reaction with water always results formation of CO_2 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: 01.10.2019 Technical Data Sheet (TDS) ONGRONAT FB 5470

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

