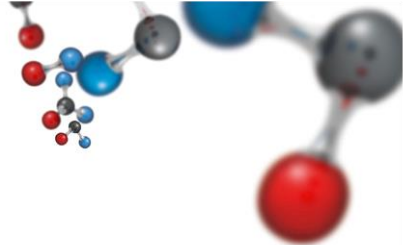


# TECHNICAL DATA SHEET (TDS)

## ONGRONAT® 3800



- **Product description:** ONGRONAT® 3800 is a carbodiimide-modified 4,4'-methylene diphenyl diisocyanate
- **Appearance:** Pale yellow coloured liquid at room temperature
- **Features & benefits of the end product produced using ONGRONAT® 3800:** Flexibility, Comfort, Durability, High tensile strength, Weather & chemical resistance
- **Industry:** Construction, Transport, Clothing & Footwear
- **Applications:** Wire & cable insulation, Energy absorption & shock damping; dashboards & steering wheels; Body panels, Synthetic leather, Clothing fabrics, Sport & leisure

### SPECIFICATIONS

Property	Value	Dimension	Test Method
NCO	27.0 - 29.0	wt%	ASTM D5155
Viscosity (at 25 °C)	30 - 90	mPa.s	ASTM D4889

### OTHER PROPERTIES\*

Property	Value	Dimension
Density (at 25°C)	1.21	g/cm <sup>3</sup>
Flash point	>200	°C

\*Parameters given in the other property range are only typical values, therefore they are not part of the specification.

### PACKING, STORAGE & TRANSPORT

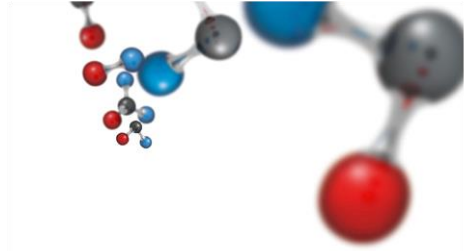
Packing and transport: ONGRONAT® 3800 can be loaded and transported in tank road tankers, 1000 l containers, 225 kg non-returnable metal drums, or in metal cans under nitrogen blanket. The loading temperature of ONGRONAT® 3800 is 40-50 °C in bulk and 20-30 °C in the case of drummed product or in intermediate 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 20-40 °C in the case of bulk product. When transporting ONGRONAT® 3800 in drums or IBCs the temperature must be kept in the range of 20-30 °C, therefore cold shocks and prolonged exposure of the containers (drums or IBCs) to intensive sunlight must be avoided. ONGRONAT® 3800 is shipped according to the above mentioned delivery temperature ranges in the lack of any special requirement.

Storage: It is recommended to store ONGRONAT® 3800 at room temperature (20-30°C). Under these conditions the shelf life of ONGRONAT® 3800 is six (6) months from the date of its production. At prolonged storage below 20 °C partial crystallisation of the ONGRONAT® 3800 may occur. If this happens the product can be molten by heating it cautiously but as rapidly as possible, preferably in a hot air oven. During this procedure the temperature of the product should not

exceed 70°C. After the remelting has completed, the material needs to be mixed thoroughly. Please note that the crystallized product tends to dimerize, therefore it might not be possible to melt all the solid particles if the product had been left standing in crystal phase for a long time as dimer has low solubility in it. Storage at temperatures above 30 °C is not recommended since the rate of solids formation increases under these circumstances. Above 150 °C a slow, exothermic decomposition reaction takes place which becomes extremely fast above 250 °C. The material must be kept dry at all times. It must be protected from water ingress and atmospheric moisture. In order to protect the material from the latter, a dry inert gas blanket (nitrogen) with a dew point of -40°C must be applied to the containers (drums or storage tanks). Dry air is not recommended for this purpose because it will cause oxidation. Since carbon-dioxide is soluble in isocyanates, it is not recommended to be used as an inert gas either.

# TECHNICAL DATA SHEET (TDS)

## ONGRONAT® 3800



### SAFETY PRECAUTIONS

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Handle the material with care. Avoid contact with water and moisture. Reaction with water always results in the formation of CO<sub>2</sub> 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](http://www.borsodchem-group.com) website and in the specific Material Safety Data Sheet.

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ONGRONAT® 3800

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[www.borsodchem-group.com](http://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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