

HUNTSMAN

Technical Data

RUBINATE® 9511 MDI Modified Diphenylmethane Diisocyanate

DESCRIPTION

RUBINATE® 9511 MDI (Modified Diphenylmethane Diisocyanate) is a brown liquid. The product is an MDI prepolymer with an average functionality of 2.4.

TYPICAL PROPERTIES AS SHIPPED

Isocyanate Equivalent Weight	262
NCO Content, %	16.0
Viscosity @ 25°C (77°F), cps	2500
Appearance	Brown liquid
Functionality	2.4
Specific Gravity @ 25°C (77°F)	1.129
Flash Point, (Cleveland Open Cup) °C (°F) >110	(>230)

APPLICATIONS

RUBINATE 9511 MDI is a highly reactive MDI-based prepolymer. RUBINATE 9511 MDI is recommended for use in the manufacture of coatings, adhesives, and encapsulants. RUBINATE 9511 MDI provides excellent corrosion and chemical resistance when used as a one-component moisture cure system for primers, steel substrates and concrete coating membranes. RUBINATE 9511 MDI is compatible with a broad range of polyols, catalysts and can be used in the formulation of two-part coating systems. It can also be used as a one-component moisture cure system for laminating adhesives.

Note: Products made from RUBINATE 9511 MDI will yellow with exposure to UV light (including sunlight). Users should make their own tests to determine the suitability of this product for their own particular purposes.

HANDLING AND STORAGE

The reaction of isocyanates with water leads to the formation of insoluble ureas and carbon dioxide gas which can result in pressure buildup inside closed containers. Therefore, extreme care must be taken to assure containers used for RUBINATE 9511 MDI remain dry.

Freshly manufactured RUBINATE 9511 MDI is a brown liquid. Sedimentation is usually due to contamination from atmospheric moisture or to dimer formation. Reaction from atmospheric moisture can be prevented by storing RUBINATE 9511 MDI in carefully sealed containers or under a dry nitrogen atmosphere. During handling, RUBINATE 9511 MDI must also be protected from atmospheric moisture and water ingress, and containers must be carefully resealed after each sampling.

RUBINATE 9511 MDI is resistant to short term exposure to low temperatures and will not freeze except under severe conditions. However, low temperatures result in increased viscosity, which makes handling more difficult. The recommended storage temperature for RUBINATE 9511 MDI is 60 to 95°F (16-35°C).

A small amount of finely divided insoluble solid in the liquid product does not usually cause difficulties in handling or product performance. However, if necessary, the liquid product may be filtered through a suitable in-line filter. It is suggested that the filter vessel be of stainless steel with a suitable polypropylene filter bag. The lines should be heated and blown clear with nitrogen after use.

RUBINATE 9511 MDI is also available in 55-gallon drums. If drums have been exposed to temperatures below the recommended storage temperatures for more than a few hours, the material may increase in viscosity. If this occurs, the product may be heated to room temperature to reduce the viscosity.