



IsoQure[®] UR 500

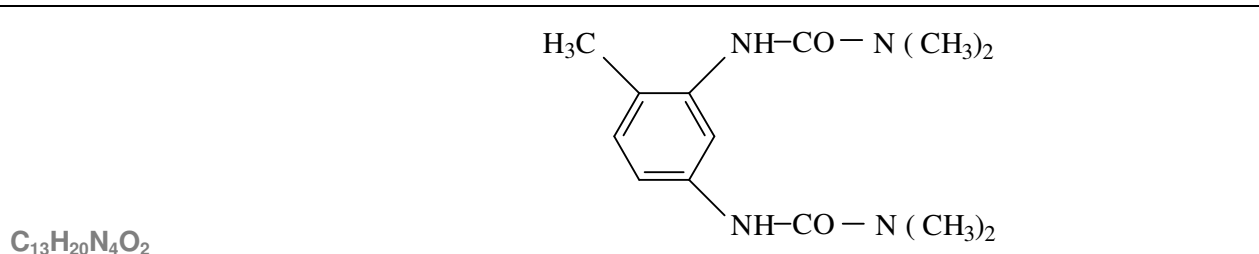
(Accelerator for Epoxy Resin Curing)

IsoQure[®] UR 500 is the most reactive blocked accelerator for the epoxy-dicyandiamide reaction allowing for a long shelf life. Following thermal activation, it provides with fast curing and high cross-linking density.

Chemical Name

Chemical name	1,1-(4-Methyl-m-phenylene)bis(3,3'-dimethylurea) or 2,4-Bis(dimethylaminocarbonylamino)toluene
CAS register number	17526-94-2
EINECS	241-523-6
TSCA	listed

Structural Formula



Typical Properties

Form	Off-white to tan powder
Melting point, initial	min. 180 °C
Purity	min. 95 %
Molecular weight	264, 30
Particle Size < 10 µm	min. 95 %
Volatile Matters	max. 1 %

Application

Dicyandiamide hardeners offer excellent mechanical and electrical properties, good processing, and a long shelf life of finished epoxy resin formulations. However, the necessary curing temperatures of ~ 200 °C are too high for most applications.

IsoQure[®] UR 500 is a blocked accelerator which reduces the necessary curing temperature significantly (above 130 °C, short cure cycles are achieved) and does not sacrifice the shelf life of the compound. IsoQure[®] UR 500 is the most reactive UR accelerator.

Applications extend from laminates for electrical circuit boards to powder coatings, from structural adhesives to high- tech carbon fibre composites.

Function

IsoQure[®] UR 500 decomposes under heat to form two NCO- (isocyanate-) groups and catalytically active dimethylamine. The dimethylamine accelerates the curing of the epoxy and the isocyanates react with epoxies to form additional linkages via oxazolidinones. IsoQure[®] 500 is more active than IsoQure[®] 200 or IsoQure[®] 300.

Handling and Storage, Packaging

The processing and use of IsoQure[®] UR 500 requires adequate technical and professional knowledge. Please consult safety data sheet and observe local safety regulations.

The legal requirements prevailing in your country, especially in the avoidance of accidents, working hygiene and patent rights must be observed.

IsoQure[®] UR 500 has to be stored in tightly sealed original containers in a cool and dry place below 28 °C. Properly stored it is stable for a minimum of one year.

Standard pack size of IsoQure[®] UR 300 is 25 kg in a bag; 500 kg on a pallet.

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The above information is based on our experience to date and is intended for your advice. It does not constitute a guarantee for individual applications because the application and handling in each case lie beyond our control. If damage or injury occurs as a result of an application for which we are proven liable, or maximum liability will be limited to the value of the products supplied by us and used by you. Claims for compensation based on the provisions of the Product Liability Law are not affected by the liability exclusion insofar as they are based solely on this law and are made by third parties.

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