



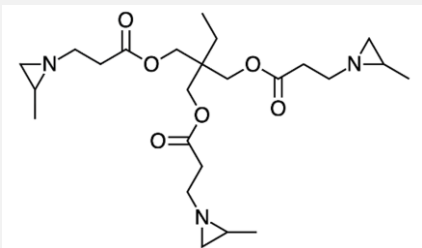
## DANCURE<sup>®</sup> PA-200

### DESCRIPTION

DANCURE<sup>®</sup> PA-200 can be used as crosslinker for both aqueous and solvent-based systems. It will improve chemical and physical properties. The product is suitable for acrylic emulsions and polyurethane dispersions, as the aziridine functional group can react with the active hydrogen atom of carboxyl group. DANCURE<sup>®</sup> PA-200 is room temperature reactive and provides:

- Increased water, chemical, detergent and abrasion resistance.
- Increased humidity resistance.
- Efficiently modify tack
- Significantly improved adhesion to a range of surface substrates including wood, metal, ceramic, paper, concrete and various plastics.

### PRODUCT CHARACTERISTIC

	Values	Chemical Structure
CAS-Number	64265-57-2	
Appearance	Clear liquid	
Solid content (HPLC Area %)	≥ 98 %	
Residue MET (ppm)	< 100	
Viscosity (@ 25 °C, mPa.s)	100 - 300	
Density (@ 20 °C, g/cm <sup>3</sup> )	1,08	
Total volatiles	≤ 1,0 %	
pH (10% aqueous, 25 °C)	8 – 10,5	
Refractive index (@ 25 °C)	1,4690 – 1,4730	
Assay (mmol/g, eq of MET)	5,90 – 6,40	

### APPLICATION

The trifunctional aziridine DANCURE<sup>®</sup> PA-200 can be used for following applications:

- Adhesives
- Pressure sensitive adhesives (PSA)
- Wood coatings
- Leather coatings
- Textile printing & finishing
- Printing inks
- Over-print varnishes

### BENEFITS PROVIDED

#### Adhesives

Increased cohesive strength, faster curing time, adhesion promotion to low energy surfaces such as plastics, ceramics, metal, wood & concrete.

#### Pressure Sensitive Adhesives (PSA)

As mentioned above including tack modification.

#### Wood Coatings

Increased abrasion resistance, increased chemical/water resistance, faster curing time, excellent colour/clarity, high crosslink density, improved black heel mark resistance.



### Leather Coatings

Increased scuff resistance, increased chemical/water resistance, faster curing time, excellent colour/clarity, high crosslink density, enhanced performance of VOC formulations & improved black heel mark resistance.

### Textile Printing & Finishing

As mentioned above including anti-wicking.

### Printing Inks

Adhesion promotion to low energy surfaces such as plastics, ceramics, metal, wood & concrete. Increased scuff resistance, increased water/chemical resistance, high crosslink density, excellent colour/clarity & faster curing time.

### Over-Print Varnishes

Increased scuff resistance, increased chemical/water resistance, faster curing time, excellent colour/clarity & high crosslink density.

## FORMULATION

DANCURE® PA-200 is a trifunctional monomer that crosslink polymers, oligomers and other resin types by reacting with available carboxyl functionality. Optimum performance in film properties is typically achieved using between 0.60 and 1.0 equivalents of the available carboxyl functionality; this is usually around 2-3%. Higher levels at 5% will improve performance, in particular those of solvent resistance, abrasion & adhesion.

Typical systems will have a pot life of 12-24 hours but can be 4-8 hours depending on type, temperature and pH. Optimum pH is 8-10 (slightly alkaline conditions), giving an improved pot life of 18-36 hours.

## STABILITY

DANCURE® PA-200 will react quickly in the presence of acid medium and therefore must be utilised in slightly alkaline systems (pH 8-10). In waterborne applications, DANCURE® PA-200 will hydrolyse slowly and therefore any blends must be used within 3-5 days of preparation. Hydrolysed products should have no adverse effects on the emulsions or dried films and additional crosslinker can be added to restore the reactivity.

## STORAGE, HANDLING & SHELF-LIFE

DANCURE® PA-200 is added to the formulated coating system just prior to use (two-component system). Addition should be done slowly and with good agitation to ensure even distribution.

DANCURE® PA-200 must be stored in a cool, dry and well-ventilated area away from acids and oxidisers. Provided that the product is stored below 25 °C in sealed and original containers then the shelf life is approximately 12 months, but a retest is recommended after 6 months.

## PACKAGING


25 kg HDPE plastic pail (UN approved), 200 kg drum (UN approved) or 1.000 kg IBC.




**DANQUINSA**  
GMBH

STÖRRENSTR.30  
72135 DETTENHAUSEN  
GERMANY

Post office box 147  
72133 DETTENHAUSEN  
GERMANY

: +49 (0)7157 5225-0

: +49 (0)7157 5225-22

: info@danquinsa.com

[WWW.DANQUINSA.COM](http://WWW.DANQUINSA.COM)

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