JD-100 | Polyfunctional Aziridine Crosslinker

Overview

JD-100 is a polyfunctional aziridine crosslinker that reacts with carboxyl groups at room temperature, making it suitable for carboxyl-functional systems. It is miscible with water and many organic solvents and also reacts under dry conditions. The latest JD-100 formulation offers transparency, stability, flexibility and efficient crosslinking, with consistent batch-to-batch quality for reliable waterborne crosslinking.

Typical dosage: 1%-3% based on acrylic or polyurethane binder solids. Cure at room temperature or bake at 60-100 °C. For emulsions and dispersions, the recommended formulation pH is 7.5-9. Crosslinking enhances water and chemical resistance, dry and wet rub resistance, anti-blocking properties and coating durability, and improves adhesion to certain substrates.

Typical Properties

Type: Polyfunctional aziridine crosslinker	Viscosity (mPa·s): 100-300
Solubility: Readily soluble in water, alcohols, ketones and esters	Appearance: Colorless or pale yellow transparent liquid
Storage stability (25 °C): 12 months	Solids content: ≥98%
Water solubility: ≥1:2	Free amine content: ≤0.1%
pH (25 °C): 9-11	

Applications

- Waterborne wood coatings: improves water, abrasion and solvent resistance and adhesion.
- Leather coatings: improves dry/wet rub fastness and chemical resistance.
- Textile printing pastes: improves resistance to stonewashing and enzyme washing and reduces surface blocking.
- Waterborne adhesives: enhances cohesion and helps reduce adhesive residue left by protective films on substrates.
- Waterborne inks: improves water and dry/wet rub resistance and coating printability.
- Waterborne sealants: improves water resistance; enhances cohesion in cement-based systems.
- Vinyl coatings: reduces plasticizer migration and improves stain resistance.
- Waterborne industrial coatings: improves water and alcohol resistance.

Safety, Storage and Packaging

For industrial use only. Wear suitable personal protective equipment and avoid skin and eye contact. If skin contact occurs, rinse immediately with clean water. If discomfort occurs, stop exposure, follow the SDS first-aid instructions and seek medical attention promptly. Do not use in acidic media.

Packaging: 5 kg plastic pails and 25 kg plastic-lined drums.

Storage: Store at room temperature in a dry, well-ventilated place away from light. Reseal promptly after opening to minimize air exposure and maintain product quality.

Important Notes

1. Industrial chemical. Wear suitable personal protective equipment and avoid direct skin and eye contact.
2. Collect spills promptly. Prevent entry into drains, soil and bodies of water.
3. Store, transport and dispose of the product in accordance with the SDS, label and applicable regulations.
4. For reference only. Complete laboratory trials, pilot trials and application validation before bulk use.