

TYPE

acid catalyst

PHYSICAL/CERTIFIED PROPERTIES

Appearance	clear liquid
Acid number, solution	360 - 385
Colour, Gardner	max. 1

TYPICAL PROPERTIES

(not continually measured)

Active content	50%
Density	approx. 8.7 lb/gal
Specific Gravity at 77°F (25°C)	approx. 1.044

PRODUCT DESCRIPTION

CYCAT® 296-9 catalyst is a unique acid catalyst dissolved in isobutanol developed to accelerate the cure of CYMEL® amino resins at normal baking temperatures, and to permit the cure of clear finishes and enamels within relatively low temperature ranges.

PRINCIPAL USES

CYCAT® 296-9 catalyst is particularly effective in accelerating the cure of finishes containing partially alkylated amino resins with hydroxy functional resins such as short oil alkyds, polyester resins and some acrylic resins. Cures may be achieved on short schedules of 200°F (93.3°C) with melamine resins such as CYMEL® 325, CYMEL® 370 or CYMEL® 248-8 resins using 2 to 2.5 % CYCAT® 296-9 catalyst on total binder solids.

FORMULATION SUGGESTIONS

Excellent package stability is obtained with resin combinations containing CYCAT® 296-9 catalyst. For maximum stability, use the minimum concentration of the catalyst necessary to produce the required acceleration of cure and keep the initial viscosity as low as practicable.

Higher levels of primary alcohols are recommended than would normally be used in uncatalyzed systems. The alcohol level should be at least 20% to 30% of total solvent. Lower molecular weight alcohols such as methanol or ethanol have a more stabilizing effect than higher molecular weight analogs such as butanol.

Calculations of catalyst level should be on total resin content because extension of the amino resin with other resins serves to dilute the effective catalyst concentration.

APPLICATIONS

Coatings containing CYCAT® 296-9 catalyst may be cured on low temperature bake schedules to the same hardness as similar uncatalyzed systems which require higher temperatures. Since the corrosion resistance of finishes containing high levels of catalyst may be lessened, the resistance properties should be carefully checked.

CYCAT® 296-9 catalyst has excellent miscibility with resin solutions. However, because of its high acidity, it may react with certain basis type pigments such as zinc oxide, calcium carbonate or other alkaline extender pigments. Although CYCAT® 296-9 catalyst may be used in most pigmented formulations, the pigment should be checked for its reactivity with the catalyst.

STORAGE

At temperatures up to 90°F (32°C) storage stability packed in original unopened containers amounts to at least 1080 days. The expiration date may be extended and COA updated after QC testing of retained samples, only for material in allnex possession.

SAFETY AND HANDLING

Please consult the Safety Data Sheet (SDS) for safety, health, and environmental data available from allnex.