

#### **TECHNICAL DATASHEET**

### **Liquid Coating Resins and Additives**

## **CYCAT<sup>®</sup> 296-9**

#### **TYPE**

acid catalyst

#### **PRODUCT DATA**

Appearance clear liquid

Non-volatile by wt. 50 %

Solvent Isobutanol

Acid number, solution 360 - 385

Density approx. 8.7 lb/gal

Specific Gravity at 77 °F (25 °C) approx. 1.044

Setaflash, closed cup 97 °F (36 °C)

#### **PRODUCT DESCRIPTION**

CYCAT 296-9 catalyst is an unique acid catalyst 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 from 40 to 90 °F (5 - 32 °C) storage stability packed in original containers amounts to at least 1080 days.

# **HEALTH AND SAFETY INFORMATION**Before handling this material, read the corresponding Material Safety Data Sheet (MSDS) for safety, health and environmental data.

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