

# Laropal® A 81

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**Pale, yellowing-resistant aldehyde resin that is soluble in almost all paint solvents and compatible with practically all coatings raw materials. Its main uses are combination with other resin binders and the production of all-purpose pigment pastes**

# Laropal A 81

## Nature

Condensation product of urea and aliphatic aldehydes

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## Properties

### Product specification

Softening range (DIN 53180)	°C	80 – 95
Iodine colour (DIN 6162)		max. 3
Acid value (ISO 3682, DIN 53402)	mg KOH/g	max. 3

### Other properties of the product

Density at 20 °C (ISO 2811, DIN 53217)	g/cm <sup>3</sup>	approx. 1.11
Hydroxyl value (ISO 4629)	mg KOH/g	approx. 40
Saponification value (ISO 3681, DIN 53401)	mg KOH/g	approx. 50
Glass transition temperature T <sub>g</sub> (DSC)	°C	approx. 57

Occasional slight fluctuations in colour are unavoidable, but do not affect the product's performance characteristics.

### Solubility

Laropal A 81 is soluble in all common paint solvents but insoluble in water. Its solubility/diluent tolerance in aliphatic solvents such as mineral spirit is limited. Such solutions tend to separate, particularly at temperatures below 15 °C, but can be stabilized by the addition of 2 – 5% of an aromatic solvent (eg, Solvesso® 100\*).

### Compatibility

Laropal A 81 is compatible with many coatings raw materials including:

- alkyd resins
  - cellulose nitrate
  - cellulose acetobutyrate
  - vinyl chloride copolymers
  - chlorinated rubber
  - hydroxypolyacrylates
  - melamine-formaldehyde resins
  - aromatic and aliphatic epoxy resins
  - hydrocarbon resins
  - phthalate plasticizers
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## Application

Laropal A 81's excellent solubility and compatibility enable it to be used in many types of coating formulation.

It can be used to improve gloss, hardness, body, adhesion and yellowing resistance, depending on the coating's intended application.

A very pale colour and good pigment wetting are two properties that make Laropal A 81 particularly suitable for producing all-purpose pigment preparations. The low viscosity of its solutions enable high-pigment-content pastes to be produced.

Since it has good heat resistance, Laropal A 81 is also used for baking finishes, particularly since it does not cause any odours or discoloration of the resin.

Manufacturers must carry out their own trials for developing products based on Laropal A 81 because the manufacture and use of such products are affected by a large number of factors (eg, compatibility of the components, storage stability), which we cannot cover exhaustively in our own trials.

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\* Deutsche Exxon Chemical GmbH

## Safety

### General

Attention must be paid to the normal precautions for handling chemicals and to the measures prescribed in the local health regulations. The workplace must be well ventilated, skin care measures should be adopted and eye protection should be worn.

### Safety Data Sheet

The Safety Data Sheet for Laropal A 81 provides information on all the known safety data.

### Industrial hygiene

According to the experience we have gained over many years and other information at our disposal, Laropal A 81 does not pose any risk to health when it is used for the purpose for which it is intended and the principles of sound industrial practice are observed.

### Labelling

According to the data at our disposal, Laropal A 81 is not a hazardous product in the sense of the German regulations\* or the "EC Guidelines for Classification, Packaging and Labelling of Dangerous Substances".

It contains no constituents that must be taken into account for labelling.

### Food legislation

The composition of Laropal A 81 conforms to § 30 & 31 of the German consumer-protection act *Lebensmittel- und Bedarfsgegenstände-gesetz*, provided that it is processed in accordance with the principles of sound manufacturing practice.

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## Storage

Laropal A 81 has a shelf life of 2 years at temperatures below 40 °C.

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## Note

The information submitted in this publication is based on our current knowledge and experience. In view of the many factors that may affect processing and application, these data do not relieve processors of the responsibility of carrying out their own tests and experiments; neither do they imply any legally binding assurance of certain properties or of suitability for a specific purpose. It is the responsibility of those to whom we supply our products to ensure that any proprietary rights and existing laws and legislation are observed.

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\* Anhang I, Nr. 1.1, Gefahrstoffverordnung

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