

Efka[®] PL 5381

(old: Dehysol[®] D81)



The Chemical Company

general

Efka[®] PL 5381 is the standard type of an epoxy plasticizer. It has a good stabilizing effect and is largely extraction-resistant to cleaning materials and many industrial agents. Its migration resistance (also to polystyrene) is comparable with those of polymeric plasticizers.

chemical nature

soybean oil, epoxidized

Properties

physical form

light yellow liquid

shelf life

Subject to appropriate storage under the usual storage and temperature conditions, our products are durable for at least 2 years.

typical properties (no supply specification)

oxirane content	~ 6.65%
acid value	~ 0.25 mg KOH/g
iodine value	~ 2.5 g I / 100 g
iodine colour index	~ 1.5
refractive index	~ 1.472

Application

Efka® PL 5381 epoxy plasticizers form addition compounds with acids to give inert compounds, so that they can stabilize materials liable to split off acids which could form acidic degradation under the influence of heat and ultraviolet light. Naturally they do not prevent the splitting, merely the autocatalytic nature of the reaction.

their activity has, however, produced such a self-evident effect, that they have made their mark as valuable stabilizers. They improve the heat, light, weather and oxidation resistance of many plastics and resins, e. g. those based on vinyl compounds like PVC, nitrocellulose products or chlorinated rubber. Provided the exposure conditions are not severe, the use of other stabilizers may sometimes be completely omitted.

nevertheless, since combinations of metal compound and Efka® PL 5381 epoxy plasticizers act synergistically to increase the effect and to offer the maximum stabilization, such combinations are frequently used.

in these cases the quantity of metal compound may often be reduced to a quarter of the amount needed, if the metal compound is used on its own. This yields in many cases not only a considerable saving in costs, but offers other technical advantages by improving the transparency, bondability, printability and weldability

recommended concentrations

for the fabrication of vinyl resins the addition of 10 -15% to the total plasticizer content will generally be sufficient. Only in special cases should it be necessary to increase this amount as far as 30%. The often difficult stabilization of phosphate plasticizers is easily controlled by the addition of up to about 5% of Efka® PL 5381 epoxy plasticizers. Similar amounts also afford effective protection to chlorinated paraffins in use, storage or during transport.

Safety

When handling these products, please comply with the advice and information given in the safety data sheet and observe protective and workplace hygiene measures adequate for handling chemicals.

Note

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights, etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. The agreed contractual quality of the product results exclusively from the statements made in the product specification. It is the responsibility of the recipient of our product to ensure that any proprietary rights and existing laws and legislation are observed.

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