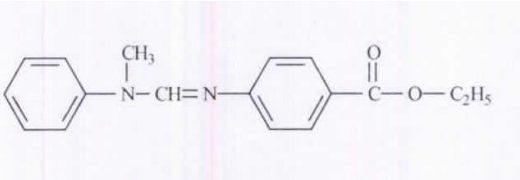


# K.SORB 101

Liquid UV Absorber for Polyurethanes

<b><u>CHEMICAL NAME</u></b>	N-(4-Ethoxycarbonylphenyl)-N'-methyl-N'-phenylformamidine or Benzoic acid, 4-[(methylphenylamino)methylene]amino}-, ethyl ester	
<b><u>CAS NUMBER</u></b>	57834-33-0	
<b><u>EINECS NUMBER</u></b>	2609760	
<b><u>MOLECULAR FORMULA</u></b>	C <sub>17</sub> H <sub>18</sub> N <sub>2</sub> O <sub>2</sub>	
<b><u>CHEMICAL STRUCTURE</u></b>		
<b><u>MOLECULAR WEIGHT</u></b>	282.3 Dalton	
<b><u>CHEMICAL-PHYSICAL PROPERTIES</u></b>	Appearance	Supercooled Pale Yellow Liquid
	(may crystallize)	
	Assay (GC)	≥ 96%
	Melting Range	27 – 28°C
	Boiling Point @2mm Hg	205 °C
	Density @20°C	1.127 g/cm <sup>3</sup>
	Viscosity @20°C	~ 9000 mPa x s
	Flash Point (C.C DIN 51584)	> 100°C
	Volatility, % weight loss (TGA-analysis, heating rate 20°C/min in air)	
		1% at 180°C
		5% at 230°C
	Solubility @ 20°C (g/100 ml solvent)	
	Acetone	>50
	Butylacetate	>50
	Ethanol	>50
	Methanol	>50
	Isopropanol	>50
	Water	< 0.01

**APPLICATION**

**K.SORB 101** is today the most powerful liquid UV absorber acting in the most damaging area for thermoplastic polymers (and expressly the polyurethane ones), of the solar UV radiation i.e. that from 280 to 330 nm.

Its absorbing power ( $\Lambda_{\max}$ : 313 nm) is almost double than the know competitive liquid benzotriazole type UVA i.e. the phenol, 2-(2H-benzotriazole-2-yl)-4-methyl-6-dodecyl.

**K.SORB 101**, thanks to its excellent solubility in polyols (ether and ester types) and isocyanates, is strongly recommended as the light protector of first choice for the PUR bicomponent systems. Owing to its chemical structure, **K.SORB 101**, however, can be slowly deactivated by primary alcohols containing water, by acid substances and by thioesters. In case of such condition, preliminary lab test are mandatory.

**PACKAGING**

**K.SORB 101** is supplied in 200 Kgs plastic drums.

**STORAGE**

**K.SORB 101** must be stored in tightly sealed original containers protected from light in a cool, dry and ventilated location. **K.SORB 101** expected shelf life is 12 months minimum. Be aware that **K.SORB 101**, after a long storage period or exposure at low temperatures may crystallize. In these conditions, before using, **K.SORB 101** must be remelt in a hot air chamber ( $T_{\max} \leq 60^{\circ}\text{C}$ ).

Wearing of goggles and gloves to avoid eye and skin contact is recommended when handling **K.SORB 101**. See relevant MSDS.

**ADDITION LEVELS**

For aromatic PUR. 0,3 – 0,8 **K.SORB 101** per 100 parts polyol, alone, or, for severe requirements, in synergistic equiponderal conjunction with liquid HALS and with liquid hindered phenolic antioxidant and/or liquid organic phosphite.

Incorporation of **K.SORB 101** in PUR resins can be reached by pre-dissolving it into the polyol, or by feeding it into the machine mixing head or, alternatively, by mixing it along with the pigments during the pigment pastes preparation.

Detailed application informations are available upon request.

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, this data does not relieve processors from 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 K Chimica supply their own products to ensure that any proprietary rights or patents and existing laws and legislation are observed. The product has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.