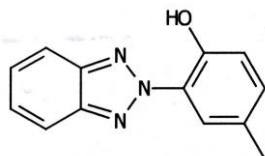


K.SORB P

Ultraviolet Light Stabilizer of the Benzotriazole class (UVA)

<u>CHEMICAL NAME</u>	2-(2'-Hydroxy-5'-methyl-phenyl)benzotriazole or 2-(2H-benzotriazol-2-yl)-p-cresol
<u>CAS NUMBER</u>	2440-22-4
<u>EINECS NUMBER</u>	219-470-5
<u>STRUCTURE</u>	



<u>MOLECULAR WEIGHT</u>	225,25 Dalton
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CHARACTERIZATION **K.SORB P**, is a strong absorber of UV radiation (290 – 400 nm, λ_{max} : 341 nm) with a high degree of photostability and minimal colour contribution.

K.SORB P can be used alone (or in synergic combination with HALS, phenolic antioxidant and organophosphite) for the light protection of a wide variety of polymers.

K.SORB P may reacts however with various heavy metal ions to form colored salt complexes. In this case K.SORB 328 is recommended.

Reducing and oxidizing agents used in polymerization or curing process have no effect on its efficiency.

<u>PHYSICAL PROPERTIES</u>	Appearance	Slightly yellow powder
	Assay (GC)	≥ 99 %
	Melting range (capillary)	128° – 132°C
	Volatiles (2h @ 105°C)	≤ 0.5 %
	Ash	≤ 0.1 %
	Transmittance % (solution of 10 g /100 ml toluene, 1 cm cell)	
	@ 440 nm	≥ 93 %
	@ 500 nm	≥ 95 %
	Bulk density	0.54 g/cm ³
	Specific gravity @ 20°C	1.38 g/cm ³
	Vapour pressure @ 20°C	1.5 x 10 ⁻⁴ Pa
	Flash point (C.C. DIN 51584)	>200 °C

Volatility, % weight loss (TGA-analysis, heating rate 20°C/min in air)

2% at 170°C

5% at 190°C

Solubility @ 20°C (g/100 ml solvent)

Methylene Chloride	16
Chloroform	13
Toluene	6.0
Styrene	7.2
Ethyl acetate	3.5
Methylmethacrilate	5
MEK	4
Dioctylphthalate	2.5
Ethanol	0.3
Water	< 0.01

PACKAGING

K.SORB P is supplied in 25 Kg net fiber drums

TOXICOLOGY

Acute oral toxicity (LD50 rat)	> 2000 mg/Kg
Acute skin irritation (rabbit)	non-irritant
Acute eye irritation (rabbit)	non-irritant

STORAGE—HANDLING

K.SORB P must be stored in a dry and ventilated cool place, in securely closed drums. Maximum recommended storage time under suitable condition (dry and cool): 5 years. Protect eyes and face and use gloves when handling the product. For detailed information on toxicity, storage and handling please refer to the relevant Material Safety Data Sheet.

APPLICATION

K.SORB P provides ultraviolet protection for polymers such as styrene (homo and copolymers), engineering plastics (polyesters and acrylic resins), polyvinyl chloride, acetals and cellulose esters, polyurethanes, chlorinated and hot-cured UPES, elastomers, adhesives and TS resins.

ADDITION LEVELS

Taking into account the type of polymer, the type and amount of pigments, fillers, synergistic additives and the expected service life, **K.SORB P** should be used at 0.10 to 0.50 phr. Extensive performance data of **K.SORB P** in various polymers and specific application areas 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.