

Technical Data Sheet

Rev. 2 - Data rev. 01/2015

K.SORB 1130

Liquid Benzotriazole UV absorber for coatings, elastomers and adhesives

CHEMICAL NAME

Component A:

β -[3-(2-H-Benzotriazole-2-yl)-4-hydroxy-5-tert.butylphenyl]-propionic acid-poly(ethylene glycol) 300 ester

Component B:

Bis{ β -[3-(2-H-Benzotriazole-2-yl)-4-hydroxy-5-tert. butyl phenyl]-propionic acid}-poly(ethylene glycol) 300 ester

Component C:

Poly(ethylene glycol) 300, or PEG 300

COMPOSITION

Component A: av.50% Component B: av.38% Component C: av.12%

CAS NUMBER

104810-48-2

104810-48-1

25322-68-3

MOLECULAR WEIGHT

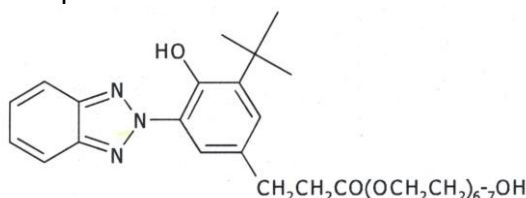
637 Dalton

975 Dalton

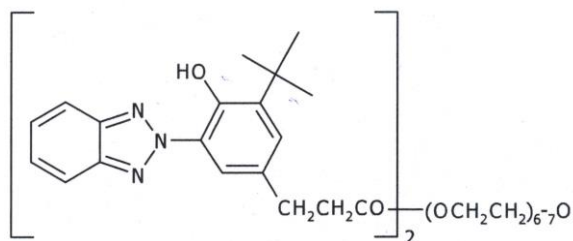
300 Dalton

STRUCTURE

Component A



Component B



Component C

H-(OCH₂CH₂)₆₋₇-OH

CHARACTERIZATION

K.SORB 1130 is a liquid blend of two benzotriazole derivatives (Component A and B) acting as UV broad absorption filters (λ_{max} : 344 nm) and PEG 300 (Component C) acting as their dissolving/dispersing aid.

K.SORB 1130, by itself high temperature and extraction resistant, is since long the UV protector of choice for solvent and water-borne systems for overall industrial decorative and trade sales coatings applications and especially for the protection of UV sensitive substrates such as wood and plastics

CHEMICAL-PHYSICAL PROPERTIES

| | |
|---|---|
| Appearance: | Yellow to light amber clear liquid |
| Freezing point: | - 40°C |
| Boiling point: | 165°C |
| Density @ 20°C: | 1,17 g/cm ³ |
| Flash point: | 115°C (din 51758) |
| Dynamic viscosity @ 20°C: | 7400 mPa.s |
| pH, 1% suspension in H ₂ O @ 25°C: | 6,5 |
| Miscibility (g/100g solvent) @ 20°C: | Miscible (>50%) with most polar and non-polar organic solvents. Not miscible with water. However it is easily dispersible in water with the help of a water miscible solvent like butylcarbitol |

PACKAGING

K.SORB 1130 is supplied in 25 kgs net plastic drum

TOXICOLOGY

Acute oral toxicity (LD50 rat) > 2000 mg/kg
Acute derma I toxicity (LD50 rabbit) > 2000 mg/kg

STORAGE-HANDLING SAFETY

K.SORB 1130 should be handled in accordance with good industrial practice. For detailed information see the MSDS.

APPLICATION

K.SORB 1130 is the standard liquid UVA to protect the lacquers organic binders and the UV sensitive clear coated surfaces (Wood and Plastics) in all solvent or water-borne systems. **K.SORB 1130** is also outstandingly suitable (when taking advantage of its liquid form) for the photo stabilization of two component PU, PU foams, cast PMMA, Elastomers (BR/SBR lattices, SBS, SEBS, EDPM, NR), Adhesives compounds (of EVA, 515, SBS, NR) solvent or water based.

ADDITION LEVELS

Taking into account the type of binder resin, tackifier, elastomer/plastomer, the type and amount of synergistic additives, pigments and the expected service life, we recommend, after adequate testing, to use **K.SORB 1130**:

- in coatings applications at 1-3% binder resin
- in elastomers, PU compounds, PMMA, adhesives compounds at 0,15-1% total resins.

Extensive performance data on **K.SORB 1130** in specific applications 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.