

Ultraviolet light absorber for plastics, rubber, colorants and adhesives

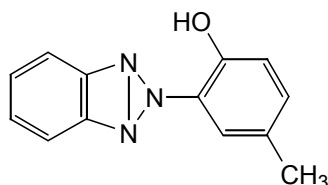
UV ABSORBER

1. General

Chiguard® P-1 is an excellent absorber of ultraviolet radiation in the 300 - 400 nm region and thus offers UV light protection to a wide range of plastics. Photochemical energy emitted by UV light is absorbed by Chiguard® P-1 and then dissipated as thermal energy at a rate and in an amount that is harmless to surrounding environments.

2. Properties

Structure :



Chemical name : 2-(2H-benzotriazol-2-yl)-p-cresol
CAS No. : 2440-22-4
Molecular formula : C₁₃H₁₁N₃O
Molecular weight : 225.2

3. Physical Data

Appearance : Off-white to yellow powder
Odor : Odorless
Boiling point : > 300 °C
Melting point : 128 -132 °C
Specific gravity : 1.38 @20 °C

4. Solubility

(g in 100 ml solvent)

Dioctyl phthalate : 2
Ethanol : 0.3
Methyl cellosolve : 1.7
Methyl methacrylate : 5.0
Styrene : 7.2
Water : Nil

5. Specification

Appearance : Off-white to yellow powder
Assay : 99% min.
Melting point : 128 °C min.
Volatiles : 0.5% max.
Transmittance : 95% min @460 nm
Color (Hazen) : 110 max.
(10% in Toluene)

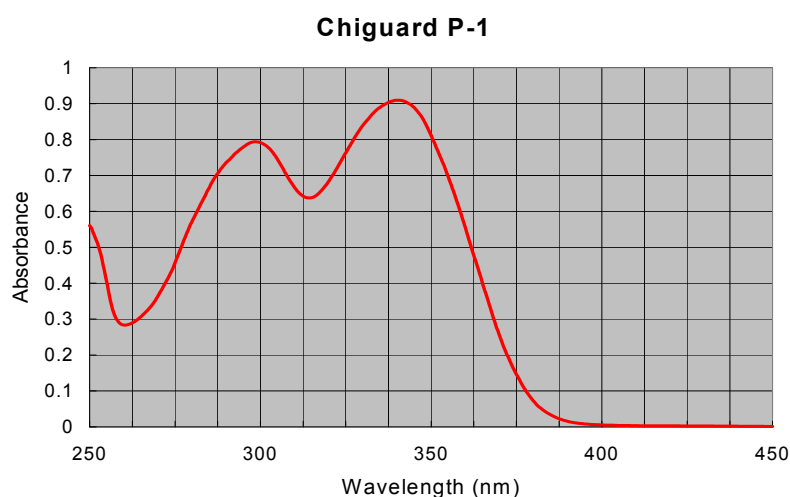
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6. Application

Chiguard® P-1 is especially effective as a light protective agent for polyester, polystyrene, acrylics, polycarbonate, PVC, acetals and cellulose esters, and natural rubber and synthetic rubber such as ABS. A dosage of 0.2% - 0.5% of Chiguard® P-1 is recommended for protection without adversely affecting initial color. If desired, it can be incorporated in monomer before polymerization, often with improvement of resin quality. Light stability of polymer can be further enhanced by use of certain antioxidants in combination with Chiguard® P-1. DEOX 76 is especially useful in this regard. Substantial improvements in weathering stability of styrenic polymers including high impact polystyrene, crystalline polystyrene, ABS and SAN have been achieved by using Chiguard® P-1 in combination with hindered amine light stabilizers such as Chiguard® 770 and 944.

7. UV Spectrum



8. Packaging

25 kg net/carton box