

Ultraviolet light absorber for plastics, coatings, rubber and adhesives

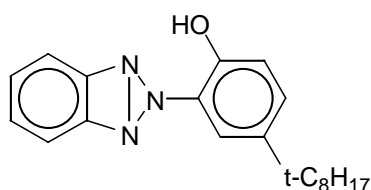
UV ABSORBER

1. General

Chiguard® 5411 is a high molecular weight ultraviolet light absorber of the hydroxy phenyl benzotriazole class. Its inherent off-white color renders itself more suitable for application where light color is critical. Its low volatility and high lipophilicity makes it especially useful where additive losses may occur during high temperature processing.

2. Properties

Structure :



Chemical name : 2-(2'-Hydroxy-5'-tert-octylphenyl)-benzotriazole
CAS No. : 3147-75-9
Molecular formula : C₂₀H₂₅N₃O
Molecular weight : 323.4

3. Physical Data

Appearance : Off-white crystalline powder
Odor : Faint
Boiling Point : > 300 °C
Melting point : 103 -108 °C
Specific gravity : 1.18 @25 °C

4. Solubility

(g in 100 ml solvent)

Dioctyl phthalate : 15
Ethanol : 0.6
Methyl cellosolve : 5
Methyl methacrylate : 12
Styrene : 22
Water : Nil

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5. Specification

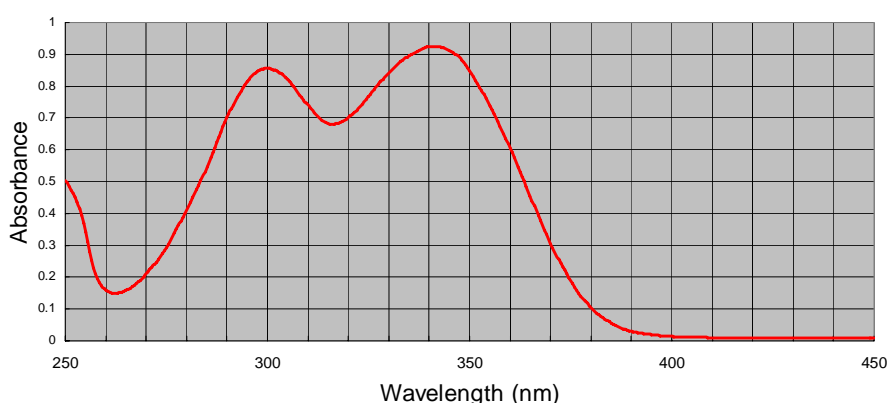
Appearance	:	Off-white to light yellow crystalline powder
Assay	:	98% min.
Melting point	:	102 -107 °C
Volatiles	:	0.5% max.
Clarity of solution	:	Clear solution
Transmittance	:	93% @450 nm
		95% @500 nm

6. Application

Chiguard® 5411 should prove valuable as a light protective agent for a wide range of polyolefins and cold-cured polyester resin. Most significantly is the excellent washfastness of Chiguard® 5411 compared to other UV absorbers commonly used. For example, 5 to 10 folds of Chiguard® BP-12 will be extracted out from monofilaments made of PP by hot detergent washing compared to Chiguard® 5411. A percentage of 0.2% - 1.0% of Chiguard® 5411 is recommended for protection. Light stability of polymer can be further enhanced by use of a phenolic antioxidants (e.g. Deox 10 and 76) and a hindered amine light stabilizer (e.g. Chiguard® 770 and 944) in the combination with Chiguard® 5411.

7. UV Spectrum

Chiguard 5411



8. Packaging

20kg net/carton box