Printing & Packaging
Industrial Coatings

Technical Data Sheet

Tinuvin® 99

We create chemistry

Product Description

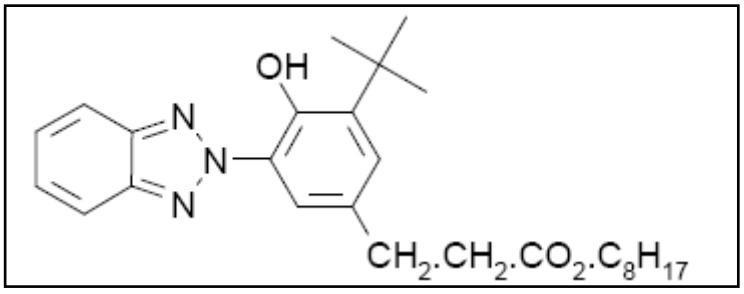
Tinuvin® 99 is a viscous liquid UV absorber of the hydroxyphenyl-benzotriazole class designed to fulfill the cost performance and durability requirements of trade sales and industrial coatings.

Key Features & Benefits

- Liquid benzotriazole UVA
- Excellent spectral coverage
- Good photo-permanence
- Industrial grade

Chemical Structure

Tinuvin® 99 is: Benzenepropanoic acid, 3-(2H-benzotriazol-2-yl)-5-(1, 1-dimethylethyl)-4-hydroxy-, C7-9-branched and linear alkyl esters



Properties

Typical Properties

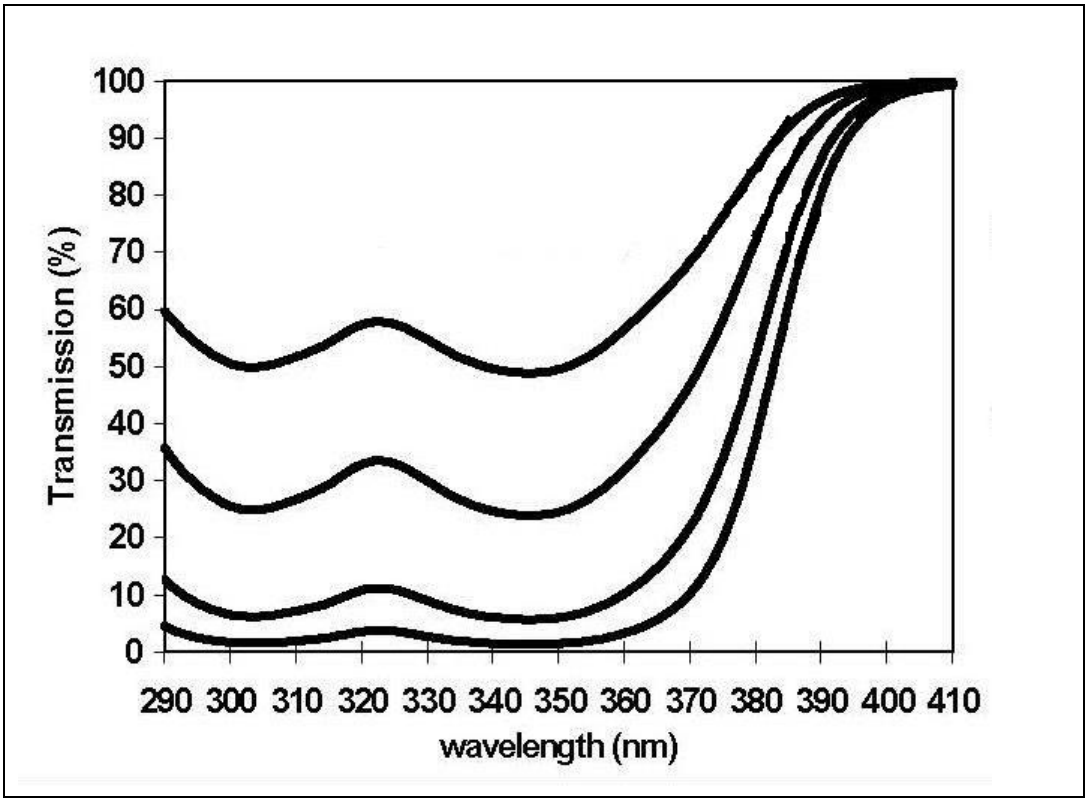
CAS No:	127519-17-9
Appearance	viscous yellow liquid
Molecular weight	451.6
Melting range	109 - 113°C

Miscibility at 20°C (g/100 g solution):

butanol	> 50
butylcarbitol	> 50
Ethyl glycol acetate	> 50
Butyl glycol acetate	> 50
Methyl ethyl ketone	> 50
1-methoxypropylacetate-2	> 50
Solvesso 100 [1]	> 50
Solvesso 150 [1]	> 50
n-hexane	> 50
water	< 0.01

[1] Registered trademark of Esso
These typical values should not be interpreted as specifications.

Transmittance Spectrum
(in toluene, cell thickness = 1 cm)



Top Line:	0.001% Tinuvin® 99, corresponds to 0.25% in a 40 µm film
Second Line:	0.002% Tinuvin® 99, corresponds to 0.50% in a 40 µm film
Third Line:	0.004% Tinuvin® 99, corresponds to 1.0% in a 40 µm film
Bottom Line:	0.006% Tinuvin® 99, corresponds to 1.5% in a 40 µm film

Applications

Tinuvin® 99's very high thermal stability and environmental permanence makes it suitable for coatings that are exposed to high bake cycles and/or extreme environmental conditions. Its broad UV absorption allows efficient protection of light sensitive substrates, especially wood.

Tinuvin® 99 is recommended for applications such as:

- Trade sales paints, stains, and finishes for wood
- General industrial applications

The performance provided by Tinuvin® 99 can be enhanced when used in combination with a HALS stabilizer such as Tinuvin® 292 or Tinuvin® 123. These combinations improve durability by inhibiting or retarding the occurrence of failures such as gloss reduction, cracking, color change, blistering, and delamination.

The amount of Tinuvin® 99 required for optimum performance should be determined in trials covering a concentration range.

Recommend Concentrations

1.0 – 3.0%	Tinuvin® 99 alone or in combination with
+	
1.0 – 2.0 %	Tinuvin® 123, Tinuvin® 144, or Tinuvin® 292

(concentrations are based on weight percent binder solids)

Safety

General The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State and Local health and safety regulations, thorough ventilation of the workplace, good skin care and wearing of protective goggles.

Safety Data Sheet All safety information is provided in the Safety Data Sheet Tinuvin® 99.

Important

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