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Tinuvin® 400

Product Description

Tinuvin 400 is a liquid hydroxyphenyl-triazine (HPT) UV absorber designed to fulfill the high performance and durability needs of solventborne, and 100% solids automotive and industrial finishes. Its low color and stability make it an excellent choice for all coatings where low color characteristics are ideal.

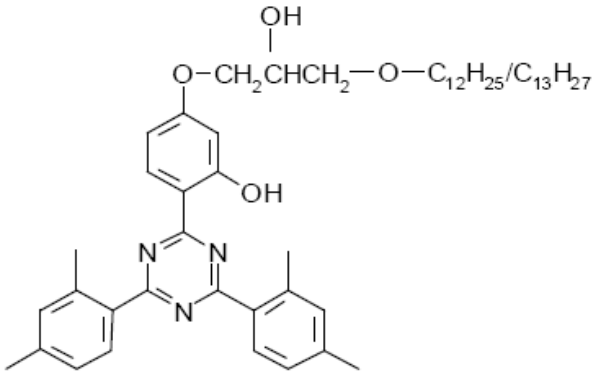
Key Features & Benefits

- Hydroxyphenyl-triazine with high absorbance in the UV-B region
- Low color, low migration
- Minimal interaction with metal catalysts and amine crosslinkers
- Excellent photo-permanence

Chemical Structure

Tinuvin 400 is a mixture of: 2-[4-[(2-Hydroxy-3-dodecyloxypropyl)oxy]-2-hydroxyphenyl]-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine & 2-[4-[(2-Hydroxy-3-tridecyloxypropyl)oxy]-2-hydroxyphenyl]-4,6-bis(2,4-dimethylphenyl)-1,3,5-triazine

Tinuvin 400 is an 85% solution of the active substance in 1-methoxy-2-propanol



Properties

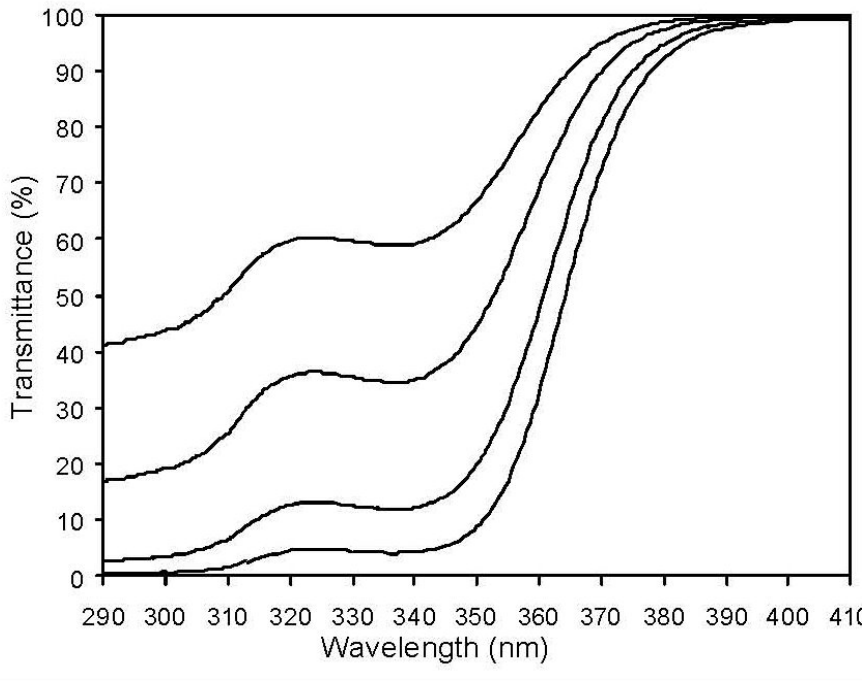
Typical Properties

CAS No:	Active Substance		153519 – 44 – 9
	1-Methoxy-2-propanol		107 – 98 – 2
Appearance			light yellow viscous liquid
Molecular weight			~ 647 avg.
Density		g/cm³	1.07

Miscible with most customary organic solvents; practically immiscible with water.

These typical values should not be interpreted as specifications.

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



Top Line:	0.001% Tinuvin 400, corresponds to 0.25% in a 40 µ film
Second Line:	0.002% Tinuvin 400, corresponds to 0.50% in a 40 µ film
Third Line:	0.004% Tinuvin 400, corresponds to 1.00% in a 40 µ film
Bottom Line:	0.006% Tinuvin 400, corresponds to 1.50% in a 40 µ film

Applications

Tinuvin 400 a liquid hydroxyphenyl-triazine (HPT) UV absorber that provides excellent performance in coatings due to:

- very high thermal stability and performance for coatings exposed to high bake cycles and/or extreme environmental conditions
- hydroxy functionality to minimize migration
- high photo-stability for long life performance
- high concentration for maximum efficiency

Tinuvin 400 has been developed as an interaction-free UV absorber for use in amine and/or metal catalyzed coating systems and coatings applied on base-coats or substrates containing such catalysts.

Tinuvin 400 is recommended for solventborne automotive OEM and refinish coating systems, UV cured coatings, and industrial coatings where long life performance is essential. In addition, Tinuvin 400 is ideal for exterior construction coatings (roofing, etc.), construction adhesives, and sealants

The protective effects of Tinuvin 400 can be enhanced when used in combinations with a HALS such as Tinuvin 123, Tinuvin 249 or Tinuvin 292. These combinations improve the durability of clear coats by retarding gloss reduction, delamination, cracking, and blistering.

The amount of Tinuvin 400 required for optimum performance should be determined in laboratory trials covering a concentration range.

Recommend Concentrations

1.0 – 3.0 %	Tinuvin 400
+	
0.5 – 2.0 %	Tinuvin 123, Tinuvin 152, 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 measure 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 for Tinuvin 400.

Storage

Please refer to the “Handling and Storage of Polymer Dispersions” brochure.

Important

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