

# Printing & Packaging

## Industrial Coatings

Technical Data Sheet

# Tinuvin® 384-2



### Product Description

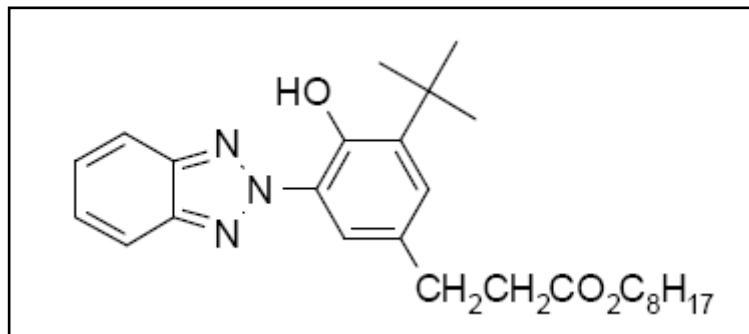
Tinuvin® 384-2 is a liquid UV absorber of the hydroxyphenylbenzotriazole class developed for coatings. Its very high thermal stability and environmental permanence makes it suitable for coatings exposed to high bake cycles and/or extreme environmental conditions. It has been designed to fulfill the high performance and durability requirements of automotive and industrial high quality finishes. Its broad UV absorption allows efficient protection of light sensitive base coats or substrates such as wood and plastics.

### Key Features & Benefits

- Versatile hydroxyphenyl-benzotriazole UVA for use solvent based coatings
- Excellent spectral coverage in the UV region
- Excellent photopermanence and thermal stability

### Chemical Structure

Tinuvin® 384-2 is: 95% Benzenepropanoic acid, 3-(2H-benzotriazol-2-yl)-5-(1, 1-dimethylethyl)-4-hydroxy-, C7-9-branched and linear alkyl esters, 5% 1-methoxy-2-propyl acetate



## Properties

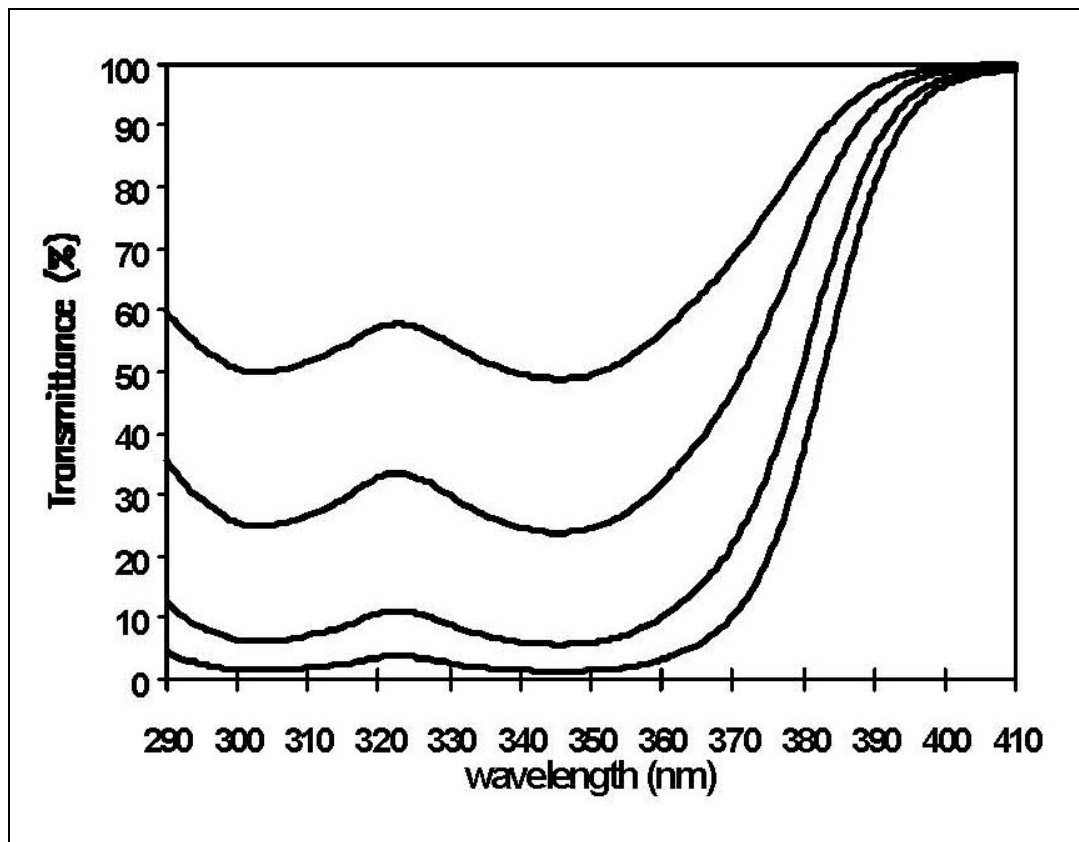
### Typical Properties

CAS No:	127519-17-9, 108-65-6
Appearance	pale yellow liquid
Molecular weight	451.6
Dynamic Viscosity at 20 °C	1.0718 g/cm <sup>3</sup>
<u>Miscibility (g/100 g solution) at 20 °C:</u>	
butanol	> 30
butylcarbitol	> 30
ethyl glycol acetate	> 30
butyl glycol acetate	> 30
methyl ethyl ketone	> 30
1-methoxypropylacetate-2	> 30
Solvesso 100 <sup>1</sup>	> 30
Solvesso 150 <sup>1</sup>	> 30
n – hexane	> 30
water	< 0.01

<sup>1</sup> trademark of Esso

These typical values should not be interpreted as specifications.

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



Explanation:

Top Line: 0.001% Tinuvin® 384-2, corresponds to 0.25% in a 40  $\mu$  film  
Second Line: 0.002% Tinuvin® 384-2, corresponds to 0.50% in a 40  $\mu$  film  
Third Line: 0.004% Tinuvin® 384-2, corresponds to 1.0% in a 40  $\mu$  film  
Bottom Line: 0.006% Tinuvin® 384-2, corresponds to 1.5% in a 40  $\mu$  film

## Applications

Tinuvin® 384-2 is recommended for:

- Automotive coatings
- General industrial applications i.e. coil coatings, wood coatings.

The liquid form of Tinuvin® 384-2 provides easy incorporation into solvent borne systems.

The performance provided by Tinuvin® 384-2 can be enhanced when used in combination with a HALS stabilizer such as Tinuvin® 292 or Tinuvin® 123. These combinations improve the durability of clear coats by inhibiting or retarding the occurrence of failures such as gloss reduction, cracking, color change, blistering and delamination. The amount of Tinuvin® 384-2 required for optimum performance should be determined in trials covering a concentration range.

<b>Recommend Concentrations</b>	Tinuvin® 384-2	1.0 – 3.0 %
	Tinuvin® 123, Tinuvin® 144 or Tinuvin® 292	0.5 – 2.0 %

(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® 384-2.

## Important

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