

# Printing & Packaging Industrial Coatings

Technical Data Sheet

## Tinuvin<sup>®</sup> 292



### Product Description

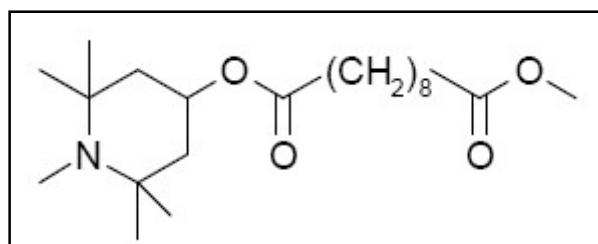
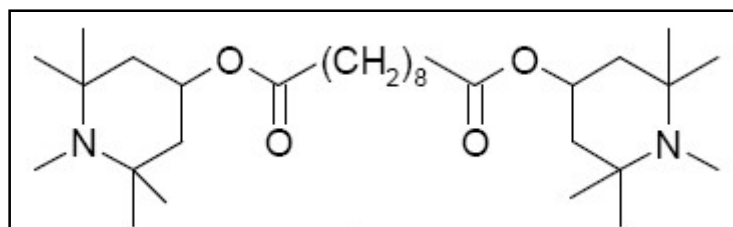
Tinuvin<sup>®</sup> 292 is a liquid hindered amine light stabilizer especially developed for coatings. It is an almost pure mixture of the two active ingredients below. It is this combination that keeps the product liquid, unlike the pure diester which tends to solidify, even at room temperature. The efficiency of Tinuvin<sup>®</sup> 292 provides significantly extended lifetime to coatings by minimizing paint defects such as cracking and loss of gloss.

### Key Features & Benefits

- Versatile HALS with superior performance in both water- and solvent-based coatings
- Extends usable lifetime of coating by minimizing loss of gloss and cracking
- Excellent compatibility with a wide variety of coatings systems

### Chemical Structure

Tinuvin<sup>®</sup> 292 is a) Bis (1, 2, 2, 6, 6-pentamethyl-4-piperidyl) sebacate & b) Methyl 1, 2, 2, 6, 6-pentamethyl-4-piperidyl sebacate



### Properties

#### Typical Characteristics

CAS No:	a) 41556 – 26 – 7 b) 82919 – 37 – 7
Appearance	slightly yellow liquid
Molecular weight	a) 509 b) 370
Dynamic Viscosity at 20 °C	400 cps
Miscibility at 20 °C	Tinuvin <sup>®</sup> 292 is miscible to more than 50% with most commonly used paint solvents. Water solubility is less than 0.01%.

These typical values should not be interpreted as specifications.

## Applications

Tinuvin® 292 is recommended for applications such as:

- automotive coatings (non-acid catalyzed)
- industrial coatings
- wood stains or do-it-yourself paints
- radiation curable coatings (with no loss of cure speed)

Its high efficiency has been demonstrated in coatings based on a variety of binders such as:

- one- and two-component polyurethanes (water and solvent)
- thermoplastic acrylics (physical drying)
- thermosetting acrylics, alkyds and polyesters
- alkyds (air drying)
- waterborne acrylics
- phenolics, vinylics
- radiation curable acrylics

The dispersion of Tinuvin® 292 in waterborne coatings may be facilitated by dilution with a water-miscible solvent such as butylcarbitol.

The performance of Tinuvin® 292 can be significantly improved when used in combination with a UV absorber such as recommended below. These synergistic combinations give coatings superior protection against gloss reduction, cracking, blistering, delamination and color change.

The light stabilizers may be added in two-coat automotive finishes to the base and clear coat. However, according to our experience the optimum protection is usually achieved by adding the light stabilizers to the topcoat.

Possible interactions of Tinuvin® 292 with paint ingredients such as acid catalysts should be carefully evaluated.

The amount of Tinuvin® 292 required for optimum performance should be determined in trials covering a concentration range.

<b>Recommended concentration</b>	Clear coats &	0.5 – 2 %	Tinuvin® 292
	One-coat metallic shades:	+ 1 – 3 %	Tinuvin® 1130, Tinuvin® 384-2, Tinuvin® 928, or Tinuvin® 400
	One-coat solid shades:	0.5 – 2 %	Tinuvin® 292
		alone or in combination with  1 – 3 %	Tinuvin® 1130, Tinuvin® 384-2, Tinuvin® 928, or Tinuvin® 400

(concentrations are based on weight percent binder solids)

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## 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.

### Material Safety Data Sheet

All safety information is provided in the Material Safety Data Sheet Tinuvin® 292.

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## Important

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