

# Tinuvin® 292

**Product Description** 

Tinuvin 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 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 292 is a) *Bis* (1, 2, 2, 6, 6-pentamethyl-4-piperidyl) sebacate & b) Methyl 1, 2, 2, 6, 6-pentamethyl-4-piperidyl sebacate

$$\begin{array}{c|c}
 & O & (CH_2)_8 & O \\
 & O & N
\end{array}$$

O (CH<sub>2</sub>)<sub>8</sub> O

#### **Properties**

**Typical Properties** 

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 cps 400

Tinuvin 292 is miscible to more than 50% with most commonly used paint solvents at 20°C. 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
- exterior construction coatings (roofing, etc.)
- · construction adhesives and sealants

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 laboratory trials covering a concentration range.

### **Recommended Concentration**

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)

## 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 292.

# **Storage**

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

# **Important**

The descriptions, designs, and data contained herein are presented for your guidance only. Because there are many factors under your control which may affect processing or application/use it is necessary for you to make appropriate tests to determine whether the product is suitable for your particular purpose prior to use. NO WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESIGNS, OR DATA MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS. IN NO CASE SHALL THE DESCRIPTIONS, DATA OR DESIGNS PROVIDED BE PRESUMED TO BE A PART OF OUR TERMS AND CONDITIONS OF SALE. Further, you expressly understand and agree that the descriptions, designs, and data furnished by BASF hereunder are given gratis and BASF assumes no obligation or liability for same or results obtained from use thereof, all such being given to you and accepted by you at your risk.

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