78152 Tinuvin® 292

Tinuvin® 292 is a liquid hindered amine light stabilizer (HALS) especially developed for coatings.
Its efficiency provides significantly extended life time to coatings by minimizing paint defects such as cracking and loss of gloss.

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

Chemical composition:

The active substance is a mixture of:
Bis(1,2,2,6,6-pentamethyl-4-piperidinyl)-sebacate and
1-(Methyl)-8-(1,2,2,6,6-pentamethyl-4-piperidinyl)-sebacate

Physical properties:

Appearance:	light yellow liquid
Specific density at 20°C:	0.9905 g/cm^3
Solubility at 20°C (g/100 g solution):	
Butylcarbitol	> 50
Butanol	> 50
Butylacetate	> 50
Depanol J®	> 50
Ethylglycol	> 50
1-Methoxypropylacetate-2	> 50
Methylethylketone	> 50
Solvesso 100®	> 50
Solvesso 150®	> 50
Xylene	> 50
Water	not miscible
Hexanedioldiacrylate	> 50
Trimethylolpropane-triacrylate	> 50

The dispersion of Tinuvin® 292 in water may be simplified by diluting with a water miscible solvent such as butylcarbitol.

Application:

Tinuvin® 292 may be used after adequate testing for applications such as
- automotive coatings
- industrial topcoats
- coil coatings
- wood stains or do-it-yourself paints
- radiation curable coatings.

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Its high efficiency has been demonstrated in coatings based on a variety of binders such as
- one- and two-component polyurethanes
- thermoplastic acrylics (physical drying)
- thermosetting acrylics, alkyds and polyesters
- alkyd (air drying)
- water borne acrylics
- phenolics, vinylics
- radiation curable acrylics

The weatherability of such coatings can be significantly improved by the use of a combination of Tinuvin® 292 and the UV stabilizer Tinuvin® 1130, Tinuvin® 384, Tinuvin® 928 or Tinuvin® 400. These synergistic combinations give in automotive coatings superior protection against gloss reduction, cracking, blistering, delamination and color change. The light stabilizers may be added in two coat automotive finishes to clear coat and base coat. However, according to our experience the optimum protection is achieved by adding the light stabilizers to the topcoat.

Possible interactions of Tinuvin® 292 with paint ingredients such as e.g. acid catalysts should be carefully evaluated. The optimum price/performance levels should be determined from experimental trial series covering a concentration range.

Recommended concentrations (Light Stabilizer and UV Stabilizer concentrations are based on binder solids)

- Clear coats and 1-coat-metallic-shades
  0.5 – 1.0 % Tinuvin® 292
  1.0 – 1.5 % Tinuvin® 900
- 1-Coat-Solid-Shades
  1.0 – 2.0 % Tinuvin® 292

Safety and Handling:

Tinuvin® 292 can be handled as an industrial chemical provided the following handling precautions are strictly observed:
- Work in a clean and well ventilated area
- Avoid contract with skin (gloves)
- Wear goggles to avoid contamination/irritation of the eyes.

During storage below 0°C crystallization of Tinuvin® 292 may occur.
The product can be easily liquified by slight warming. This does not impair the effectiveness of the product.

Important Notice:

The information given in this publication is based on the present state of our knowledge, all recommendations are made without any liability on our part. Buyers and users should make their own assessments of our products under their own conditions and for their own requirements.

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