BASF
We create chemistry

Tinuvin® 1130

Product Description

Tinuvin 1130 is a liquid UV absorber of the hydroxyphenyl benzotriazole class specifically developed for industrial coating applications.

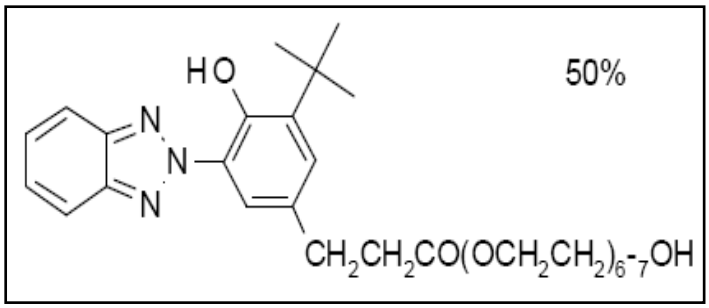
Key Features & Benefits

- Versatile product for use in water and solvent based coatings
- Excellent spectral coverage in the UV-B and UV-A region
- Hydroxyl functionality can be reacted with melamine and isocyanate crosslinkers to reduce migration

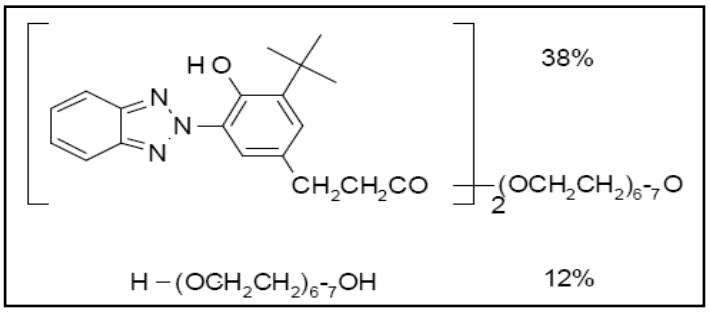
Chemical Composition

A mixture of: a) 50% β-[3-(2-H-Benzotriazole-2-yl)-4-hydorxy-5-*tert.*butylphenyl]-propionic acid-poly(ethylene glycol) 300-ester, b) 38% *Bis*{β-[3-(2-H-Benzotriazole-2-yl)-4-hydroxy-5*tert.*butylphenyl]-propionic acid}-poly(ethylene glycol) 300 –ester, and c) 12% polyethylene glycol

A



B



Properties

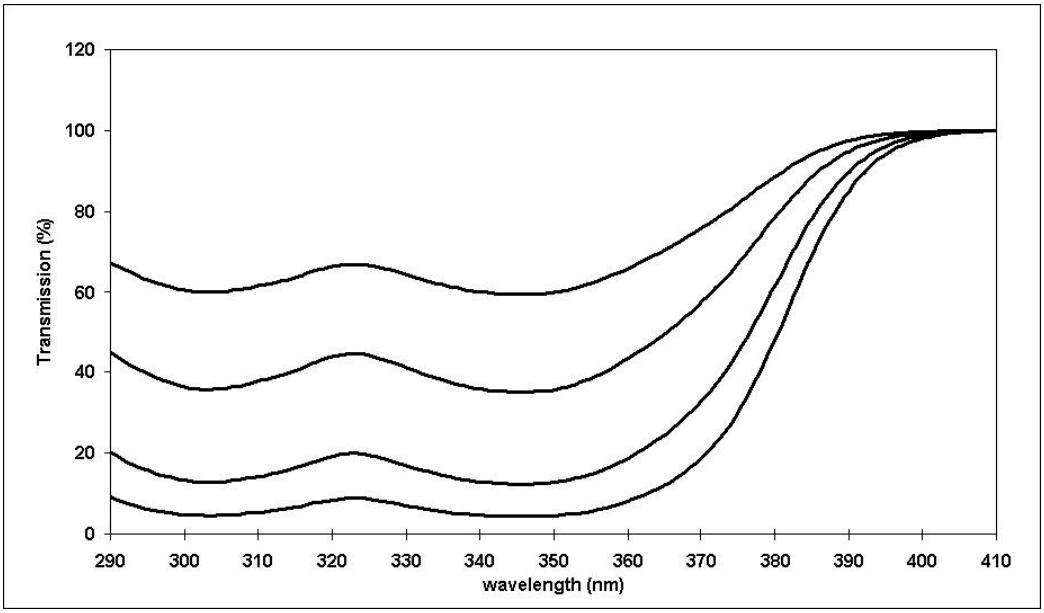
Typical Properties

Appearance		light yellow to light amber viscous liquid
CAS No.		104810-48-2
Molecular weight		637 (monomer), 975 (dimer)
Density at 20°C	g/cm^3	1.17
Viscosity at 20°C	cps	7,400

Miscibility at 20°C (g/100g solution):	
butyl carbitol	> 50
butanol	> 50
butyl acetate	> 50
ethyl glycol	> 50
1-methoxy propylacetate-2	> 50
methylethylketone	> 50
xylene	> 50
hexane dioldiacrylate (HDDA)	> 50
trimethylolpropane triacrylate (TMPTA)	> 50
water	not miscible

These typical values should not be interpreted as specifications. Miscibility should be tested for each individual case.

Transmittance Spectrum (in Toluene, cell thickness 1cm)



Top line: 0.001% Tinuvin 1130 corresponds to 0.25% in a 40µ film
Second line: 0.002% Tinuvin 1130 corresponds to 0.50% in a 40µ film
Third line: 0.004% Tinuvin 1130 corresponds to 1.0% in a 40µ film
Bottom line: 0.006% Tinuvin 1130 corresponds to 1.5% in a 40µ film

Applications

Tinuvin 1130 is a liquid UV absorber of the hydroxyphenyl benzotriazole class specifically developed for industrial coating applications. Its high temperature and extraction resistance make it especially suitable for industrial and automotive coatings. Because of its broad UV absorption, it also provides efficient protection to light sensitive substrates such as wood and plastics.

Tinuvin 1130 is recommended for both solvent- and water-based coatings such as:

- Interior/exterior general industrial metal coating applications
- Interior/exterior plastic component coating applications
- Interior/exterior wood coatings for floor, furniture, or mill work applications
- Automotive OEM or refinish applications
- exterior construction coatings (roofing, etc.)
- construction adhesives and sealants

Processing

Since Tinuvin 1130 is miscible with all common solvents, it is also easily incorporated into waterborne systems by dilution with a water-miscible solvent such as butylcarbitol.

Tinuvin 1130 may be used in combination with a light stabilizer of the sterically-hindered amine class (HALS) such as Tinuvin 249, Tinuvin 292, or Tinuvin 123. These synergistic combinations impart superior coating protection against gloss reduction, cracking, blistering, de-lamination, and color change. The light stabilizers may be added in two-coat automotive finishes to the clear coat and to the base coat. However, we recommend adding the light stabilizer to the topcoat for optimum protection.

The amount of Tinuvin 1130 required for optimum performance should be determined in laboratory trials covering a concentration range.

Recommended Concentrations 1.0 – 3.0% Tinuvin 1130 + 0.5 – 2.0% Tinuvin 123, Tinuvin 249, or Tinuvin 292

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 1130.

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.

Responsible Care®
Good Chemistry at Work

BASF Corporation is fully committed to the Responsible Care® initiative in the USA, Canada, and Mexico.
For more information on Responsible Care® go to:
U.S.: www.basf.us/responsiblecare_usa
Canada: www.basf.us/responsiblecare_canada
México: www.basf.us/responsiblecare_mexico

BASF Corporation
Dispersions and Resins
11501 Steele Creek Road
Charlotte, North Carolina 28273
Phone: (800) 251 – 0612
Email: CustCare-Charlotte@basf.com
Email: edtech-info@basf.com
www.basf.us/dpsolutions