

Tinuvin® 329

Benzotriazole UV Absorber

August 2019 | Data Sheet | Second Edition

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® = registered trademark of BASF SE

Characterization

Tinuvin® 329 is an ultraviolet light absorber (UVA) of the hydroxyphenyl benzotriazole class, which is used as a light stabilizer for plastics and other organic substrates.

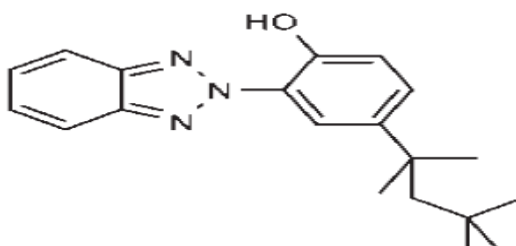
Chemical name

2Phenol, 2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)

CAS number

3147-75-9

Chemical formula



Molecular weight

323 g/mol

Applications

Tinuvin® 329 is an effective light stabilizer for a variety of plastics and other organic substrates.

Features/benefits

Tinuvin® 329 protects polymers from UV radiation, helping to preserve the original appearance and physical integrity of molded articles, films, sheets, and fibers during outdoor weathering.

Product forms

code	Tinuvin® 329	Tinuvin® 329 FL
Appearance	Slightly yellow powder	Slightly yellow, rodlike granules

Guidelines for use

The use levels of Tinuvin® 329 range between 0.1 and 1.0 %, depending on substrate and performance requirements of the final application. The product can be used alone or in combination with other additives such as light stabilizers (hindered amines), antioxidants (hindered phenols, phosphites, thiosynergists, hydroxylamine's), and other functional stabilizers and additives. The use of Tinuvin® 329 in combination with hindered amine light stabilizers is particularly noteworthy in that a synergistic performance is often observed. Performance data of Tinuvin® 329 alone or in combination with other additives are available in selected substrates.

Physical Properties

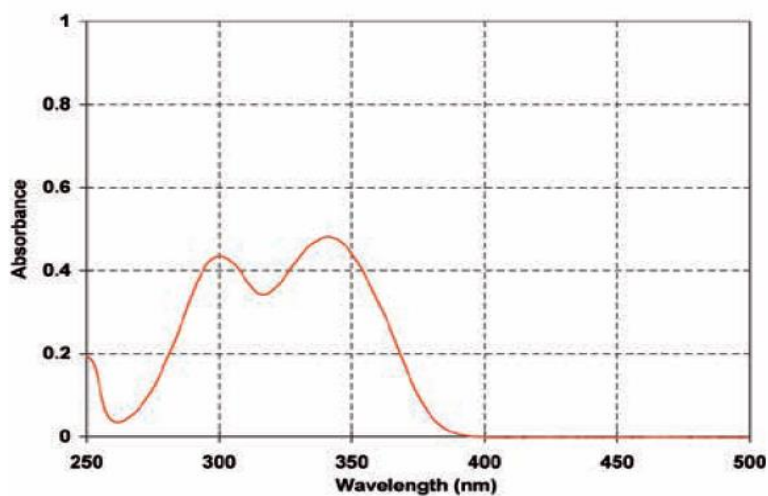
Melting range	103 – 105 °C
Flashpoint	> 150 °C
Density (20 °C)	1.18 g/ml
Vapor pressure (25°C)	1 E-5 Pa

Solubility (20°C)**g/100 g solution**

Acetone	9
Benzene	32
Chloroform	37
Cyclohexane	15
Ethyl acetate	15
n-Hexane	6
Methanol	0.6
Water	<0.01

Volatility**TGA on pure substance; heating rate
20°C/min in air**

Temperature (°C)	Weight loss (%)
180	1.0
200	2.0
220	5.0

**Absorbance spectrum
(10 mg/l, Chloroform)**

Tinuvin® 329 exhibits strong absorbance in the 300 – 400 nm region and minimal absorbance in the visible region (> 400 nm) of the spectrum. The absorption maxima are at 301 nm and 343 nm ($\epsilon = 15910 \text{ l/mol} \cdot \text{cm}$) in chloroform solution.

Handling & Safety

Detailed information on handling and any precautions to be observed in the use of the product(s) described in this leaflet can be found in our relevant safety data sheet.

Note

The descriptions, designs, data and information contained herein are presented in good faith and are based on BASF's current knowledge and experience. They are provided for guidance only, and do not constitute the agreed contractual quality of the product or a part of BASF's terms and conditions of sale.

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