

Printing & Packaging

Industrial Coatings

Technical Data Sheet

Tinuvin® 384-2



Product Description

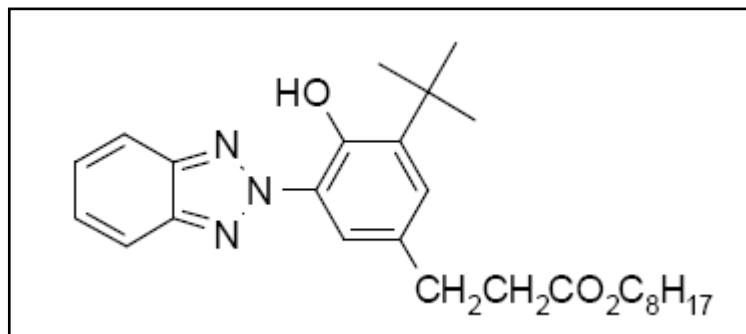
Tinuvin® 384-2 is a liquid UV absorber of the hydroxyphenylbenzotriazole class developed for coatings. Its very high thermal stability and environmental permanence makes it suitable for coatings exposed to high bake cycles and/or extreme environmental conditions. It has been designed to fulfill the high performance and durability requirements of automotive and industrial high quality finishes. Its broad UV absorption allows efficient protection of light sensitive base coats or substrates such as wood and plastics.

Key Features & Benefits

- Versatile hydroxyphenyl-benzotriazole UVA for use solvent and water based coatings
- Excellent spectral coverage in the UV region
- Excellent photopermanence and thermal stability

Chemical Structure

Tinuvin® 384-2 is: 95% Benzenepropanoic acid, 3-(2H-benzotriazol-2-yl)-5-(1, 1-dimethylethyl)-4-hydroxy-, C7-9-branched and linear alkyl esters, 5% 1-methoxy-2-propyl acetate



Properties

Typical Characteristics

CAS No:	127519-17-9, 108-65-6
Appearance	pale yellow liquid
Molecular weight	451.6
Dynamic Viscosity at 20°C	3,200 cps
Density at 20°C	1.0718 g/cm ³

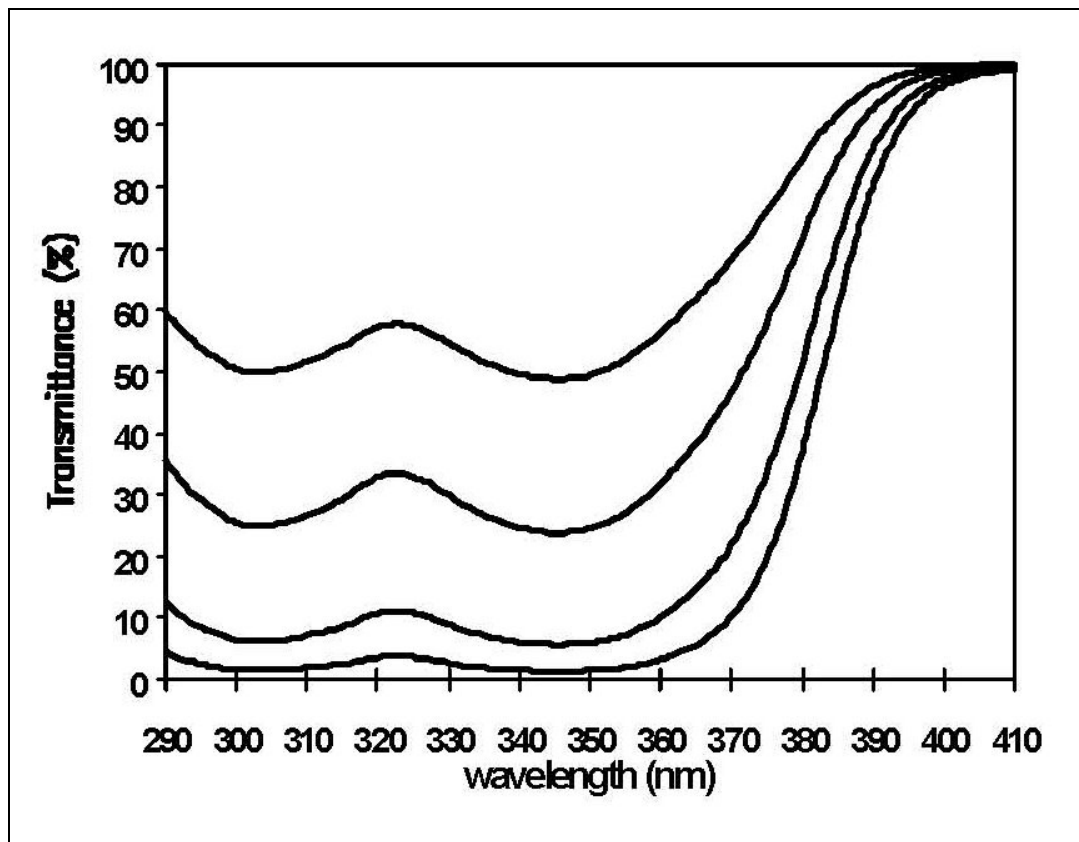
Miscibility (g/100 g solution) at 20 °C:

butanol	> 30
butylcarbitol	> 30
ethyl glycol acetate	> 30
butyl glycol acetate	> 30
methyl ethyl ketone	> 30
1-methoxypropylacetate-2	> 30
Solvesso 100 ¹	> 30
Solvesso 150 ¹	> 30
n – hexane	> 30
water	< 0.01

¹ trademark of Esso

These typical values should not be interpreted as specifications.

Transmittance Spectrum
(in toluene, cell thickness 1 cm)



Explanation:

Top Line: 0.001% Tinuvin[®] 384-2, corresponds to 0.25% in a 40 μ film
 Second Line: 0.002% Tinuvin[®] 384-2, corresponds to 0.50% in a 40 μ film
 Third Line: 0.004% Tinuvin[®] 384-2, corresponds to 1.0% in a 40 μ film
 Bottom Line: 0.006% Tinuvin[®] 384-2, corresponds to 1.5% in a 40 μ film

Applications

Tinuvin[®] 384-2 is recommended for:

- Automotive coatings
- General industrial applications i.e. coil coatings, wood coatings.

The liquid form of Tinuvin[®] 384-2 provides easy incorporation into water borne systems.

The performance provided by Tinuvin[®] 384-2 can be enhanced when used in combination with a HALS stabilizer such as Tinuvin[®] 292 or Tinuvin[®] 123. These combinations improve the durability of clear coats by inhibiting or retarding the occurrence of failures such as gloss reduction, cracking, color change, blistering and delamination. The amount of Tinuvin[®] 384-2 required for optimum performance should be determined in trials covering a concentration range.

Recommend Concentrations

1.0 – 3.0 %	Tinuvin [®] 384-2
+	
0.5 – 2.0 %	Tinuvin [®] 123, Tinuvin [®] 144 or Tinuvin [®] 292

(concentrations are based on weight percent binder solids)

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[®] 384-2.

Important

While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, they are provided for guidance only. Because many factors may affect processing or application/use, BASF recommends that the reader make tests to determine the suitability of a product for a particular purpose prior to use. **NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESCRIPTIONS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS.** In no case shall the descriptions, information, data or designs provided be considered a part of BASF's terms and conditions of sale. Further, the descriptions, designs, data, and information furnished by BASF hereunder are given gratis and BASF assumes no obligation or liability for the descriptions, designs, data or information given or results obtained all such being given and accepted at the reader's risk.

Tinuvin is a registered trademark of BASF Group.

© BASF Corporation, 2012



BASF Corporation is fully committed to the Responsible Care® initiative in the USA, Canada, and Mexico.

For more information on Responsible Care® goto:

U.S.: www.basf.us/responsiblecare_usa

Canada: www.basf.us/responsiblecare_canada

México: www.basf.us/responsiblecare_mexico

U.S. & Canada

BASF Corporation
1609 Biddle Avenue
Wyandotte, Michigan 48192
Phone: (800) 231 – 7868
Fax: (800) 392-7429
Email: polyorders@basf.com
Email: edtech_info@basf.com
www.basf.com

Mexico

BASF Mexicana, S.A. de C.V.
Av. Insurgentes Sur # 975
Col. Ciudad de los Deportes
C.P. 03710
Mexico, D.F.
Phone: (52-55) 53-25-27-87
(52-55) 53-25-26-87
Fax: (52-55) 56-11-48-97