

Technical Information

TI/N-CPN/IP Palatinol® TOTM-I
May 2023

Page 1 of 3

Supersedes edition dated August 2022

Petrochemicals Plasticizers



Palatinol® TOTM-I

(Stabilized with 0.1% of 1,1,3-Tris(2-methyl-4-hydroxy-5-tert-butylphenyl)butane antioxidant)

Palatinol® TOTM-I is a primary, branched monomeric plasticizer for vinyl homopolymer and copolymer resins. Palatinol® TOTM-I is suggested for use in those end-use areas where extreme low volatility is required.

Chemical Nature Trioctyl trimellitate

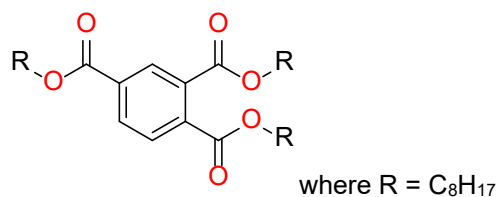
BASF Registered Name Palatinol® TOTM-I

CAS No. 3319-31-1

Molecular Weight 546

Formula C₃₃H₅₄O₆

Molecular Structure



Product Specifications

	Value	Test Method
Specific gravity @ 25°/25 °C	0.984 - 0.991	ASTM D-4052
Ester content, % by weight (minimum)	99.0	ASTM D-3465
Acid Number, mg KOH/g (maximum)	0.1	ASTM D-1045
Water, % by weight (maximum)	0.1	ASTM E-203
Color, Pt-Co Units (APHA, maximum)	100	ASTM D-5386
Suspended Matter	COLSFFM*	visual

*Clear Oily Liquid Substantially Free of Foreign Material

Typical Physical Properties

The following data were measured in the BASF Corp. laboratory. They do not represent any legally binding guarantee of properties for our sales product.

	Value
Pour point, °C	-46
Flash point (COC), °C	250
Odor	mild characteristic
Surface Tension, mN/m	31.3
Solution Temperature, °C	141
Plastisol Gelation Temperature, °C	145
Vapor Pressure @ 20 °C, mbar	< 0.01
Solubility @ 25 °C in water, mg/L	< 0.01

Viscosity & Density Data

Temperature (°C)	Dynamic viscosity (cP)	Density (g/cm ³)
-10	4,321	1.011
0	1,483	1.003
10	622	0.996
20	292	0.988
40	85.0	0.974
60	32.9	0.960
80	15.7	0.945

Description

Palatinol® TOTM-I is a primary, branched monomeric plasticizer for vinyl homopolymer and copolymer resins. Palatinol® TOTM-I is suggested for use in those end-use areas where extreme low volatility is required.

Palatinol® TOTM-I can be blended with Palatinol® 111P-I to optimize cost-performance in medium to high temperature compounds.

Palatinol® TOTM-I is inhibited with 0.1% of 1,1,3-Tris(2-methyl-4-hydroxy-5-tert-butylphenyl)butane.

Applications

Palatinol® TOTM-I provides desirable properties in vinyl applications which require good plasticizer/resin compatibility, low volatility, resistance to extraction by soapy water and good electrical properties.

Palatinol® TOTM-I is often a good substitute for polyester polymeric plasticizers where improvements in processing are desired.

Palatinol® TOTM-I is suitable alone or in combination with Palatinol® 111P-I for:

- 90 °C and 105 °C wire insulation
- interior automotive applications (instrument panel skins).

Safety

Based on toxicity studies, Palatinol® TOTM-I has a low order of toxicity and does not require special handling. Handle in accordance with good industrial hygiene and safety practices. Avoid eye contact by wearing personal protective equipment. If eye contact occurs, wash with flowing water and contact physician.

Avoid repeated or prolonged skin contact. Avoid breathing vapors by providing adequate ventilation.

Always refer to the Safety Data Sheet (SDS) for detailed information on safety.

Storage and Handling

Palatinol® TOTM-I can be stored for one year at temperatures below 40°C, if moisture is excluded.

Packaging

Palatinol® TOTM-I is available in bulk, tank trucks or rail cars.

Contact Information**Marketing**

BASF Corporation
11750 Katy Freeway, Suite 120
Houston, TX 77079, USA

Tel: +1 800-533-8961
Fax: +1 713-759-3036
E-mail: plasticizers@basf.com

Technical Support

BASF Corporation
4403 La Porte Highway 225
Pasadena, TX, 77501, USA

Tel: +1 281-884-4432
Fax: +1 281-884-4302

Visit us online at

<http://www.plasticizers.basf.com>

Note

While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, it is provided for your guidance only. Because many factors may affect processing or application/use, we recommend that you make tests to determine the suitability of a product 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, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, 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 OUR TERMS AND CONDITIONS OF SALE. Further, you expressly understand and agree that the descriptions, designs, data and information furnished by BASF hereunder are provided gratis and BASF assumes no obligation or liability for the description, designs, data and information given or results obtained, all such being given and accepted at your risk.

© 2022 BASF Corporation