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

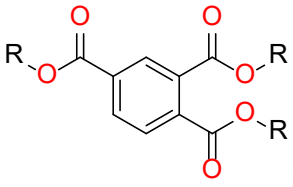
BASF Registered Name Palatinol® TOTM-I

CAS No. 3319-31-1

Molecular Weight 546

Formula $C_{33}H_{54}O_6$

Molecular Structure



where R = C_8H_{17}

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
Refractive Index $^{\eta}$D20	1.485

Viscosity & Density Data

Temperature (°C)	Dynamic viscosity (cP)	Density (g/cm³)
-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-buytlphenyl)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
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Note