## **Technical Information**

TI/N-CPN/IP Palatinol® 810TM May 2023

Page 1 of 3

Supersedes edition dated August 2022

# **Petrochemicals Plasticizers**



# Palatinol® 810TM

Palatinol® 810TM is a primary plasticizer for polyvinyl chloride resins and copolymers. It offers a unique combination of easy processability, a high degree of permanence and good compatibility.

**Chemical Nature** 8-10 Linear Trimellitate

Palatinol® 810TM **BASF Registered Name** 

CAS No. 68130-50-7 (U.S. & Canada) 90218-76-1 (other regions)

**Average Molecular Weight** 591

**Molecular Structure** 

where R, R' and R" can be C<sub>6</sub>H<sub>13</sub>, C<sub>8</sub>H<sub>17</sub> or C<sub>10</sub>H<sub>21</sub>

**Product Specifications** 

|                                      | Value         | Test Method |
|--------------------------------------|---------------|-------------|
| Specific gravity @ 25°/25 °C         | 0.970 - 0.978 | 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-1064 |
| Color, Pt-Co Units (APHA, maximum)   | 100           | ASTM D-5386 |
| Suspended Matter                     | COLSFFM*      | visual      |

<sup>\*</sup>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                     | -44                 |
| Flash point (COC), °C              | 266                 |
| Odor                               | mild characteristic |
| Surface Tension, mN/m              | 31.6                |
| Solution Temperature, °C           | 154                 |
| Plastisol Gelation Temperature, °C | 159                 |
| 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/cm³) |
|------------------|------------------------|-----------------|
| -20              | 3,066                  | 1.004           |
| -10              | 1,168                  | 0.996           |
| 0                | 515                    | 0.989           |
| 10               | 253                    | 0.981           |
| 20               | 137                    | 0.974           |
| 40               | 49.7                   | 0.963           |
| 60               | 22.6                   | 0.946           |
| 80               | 12.1                   | 0.931           |

## Description

Palatinol<sup>®</sup> 810TM, 6-8-10 linear Trimellitate (8-10 rich), is a primary plasticizer for polyvinyl chloride resins and copolymers. When compared to TOTM, formulations made with Palatinol<sup>®</sup> 810TM exhibit superior low temperature flexibility and resistance to oxidative degradation at high temperatures. This Trimellitate offers a unique combination of easy processability, a high degree of permanence and good compatibility.

### **Applications**

Palatinol  $^{6}$  810TM is suggested for such applications as wire and cable insulation, refrigerator gaskets, where lacquer mar resistance is a factor, and very low fog automotive components.

Palatinol<sup>®</sup> 810TM is available stabilized (as Palatinol<sup>®</sup> 810TM-I) for electrical applications and where otherwise required.

#### Safety

Palatinol<sup>®</sup> 810TM 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<sup>®</sup> 810TM can be stored for one year at temperatures below 40°C, if moisture is excluded.

## **Packaging**

Palatinol® 810TM 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