



**Primol 542**  
ExxonMobil Specialties , Netherlands  
Medicinal grade White Oil

**Product Description**

Primol 542 is a purified mixture of liquid saturated hydrocarbons. It is a colourless, transparent oily liquid and is essentially odourless and tasteless. It is obtained from petroleum through several refining stages, including an ultimate purification by catalytic hydrogenation.

Primol 542 is manufactured to exceed the purity requirements of the Pharmacopoeias. Due to its superior chemical inertness, it demonstrates better colour and oxidation stability than most mineral and vegetable oils, when stored and used under controlled conditions.

ExxonMobil White Oils are produced and controlled according to the ExxonMobil Product Quality Management System, EN ISO 9000 or equivalent standard.

CAS number: 8042-47-5

EINECS number: 232-455-8

INCI name (Europe): Paraffinum Liquidum

CTFA Dictionary name (USA): Mineral Oil

**Applications**

Primol 542 can be used in a variety of food-related, cosmetic and pharmaceutical applications subject to the applicable laws and regulations in each country (\*).

**Thermoplastics**

Primol 542 is recommended as a food packaging-grade plasticizer in Polystyrene. It offers an outstandingly low volatility but due to its high molecular weight, it is used in grades at relatively low oil content, in order to maintain transparency for General Purpose PS grades.

Primol 542 is recommended for use as an external lubricant for non-plasticized PVC.

**Elastomers and Adhesives**

Primol 542 is used for producing food-contact or medical rubber articles, such as EPDM or butyl rubber. Because of its extremely low volatility, it is particularly well suited for the extension of Thermoplastic Elastomers when low fogging properties are required.

Primol 542 is also recommended for Hot-Melt Adhesives formulations used in sanitary products.

(\*) User must check compliance with applicable regulations.

**Regulations and Claims**

|   |
|---|
| <b>This product is recommended for use in applications requiring:</b> |
| European Pharmacopoeia, Liquid Paraffin monograph                     |
| <b>This product is registered to the requirements of:</b>             |
| NSF H1  |
| <b>This product meets or exceeds the requirements of:</b>             |
| FDA 21 CFR 178.3620(a)  |
| US Pharmacopeia/National Formulary Mineral Oil monograph              |
| European Regulation (EU) 10/2011                                      |

**Properties and Specifications**

| Property  | Standard Method(a) | Typical | Min                         | Max  |
|---|--------------------|---------|-----------------------------|------|
| Appearance                                      | Visual             |         | Clear and Bright            |      |
| Odor  | OLFACTORY          |         | odorless or almost odorless |      |
| Color, Saybolt                                  | ASTM D6045         |         | +30                         |      |
| Kinematic Viscosity @ 40 C, mm <sup>2</sup> /s  | ASTM D445          |         | 90.0                        | 110. |
| Kinematic Viscosity @ 100 C, mm <sup>2</sup> /s | ASTM D445          |         | 11                          |      |
| Density @ 15 C, kg/m <sup>3</sup>               | ASTM D4052         |         | 866                         | 876  |
| Relative Density @ 20 C/20 C                    | ASTM D4052         |         | 0.864                       | 0.87 |
| Relative Density @ 25 C/25 C                    | ASTM D4052         |         | 0.862                       | 0.87 |
| Pour Point, °C                                  | ASTM D5950         |         |                             | -12  |
| Flash Point, Cleveland Open Cup, °C             | ASTM D92           |         | 250                         |      |
| Refractive Index, 20 C                          | ASTM D1218         |         | 1.472                       | 1.48 |
| Average Molecular Weight, g/mole                | ASTM D2502         |         | 510                         |      |
| Hydroc. with less than 25 carbons, wt %         | ASTM D6352         |         |                             | 2    |
| Distillation, 10 torr, 2.5%, °C                 | ASTM D1160         | 294     |                             |      |
| Distillation, 10 torr, 5.0%, °C                 | ASTM D1160         | 298     | 292                         |      |
| Distillation, 10 torr, 10%, °C                  | ASTM D1160         | 303     | 302                         |      |
| Paraffinic Carbons (C <sub>p</sub> ), %         | AM-S 1805          | 69      |                             |      |
| Naphthenic Carbons (C <sub>n</sub> ), %         | AM-S 1805          | 31      |                             |      |
| Aromatic Carbons (C <sub>a</sub> ), %           | AM-S 1805          | 0       |                             |      |

Note 1: Products are certified on release to meet the values specified. Actual values may deviate within the established reproducibility of the test method specified.

Note 2: For purpose of determining conformance with specification, observed or calculated values shall be rounded off to the nearest unit in the last significant digit in expressing the limiting value in accordance to the ASTM E 29 method

(a) In lieu of standard test method, alternate test methods may be used for the certification of a product property.

### Health and safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.as>

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