ExxonMobil

# Primol N 542

ExxonMobil Specialties , Singapore

Medicinal grade White Oil

## Product Description

Primol N 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 N 542 contains 5 ppm food-grade alpha-tocopherol (vitamin E) as an oxidation inhibitor.

Primol N 542 is manufactured to exceed the purity requirements of the Pharmacopoeias Due to its superior chemical inertness, it demonstrates better colour and oxidative 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.

## Applications

Primol N 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 N 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 best used in grades at relatively low oil content, in order to maintain transparency for General Purpose PS grades.

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

### Elastomers and Adhesives

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

(*) User must check compliance with applicable regulations.

## Properties and Specifications

Primol N 542 meets the requirements of the following specifications:

- USA FDA,21 CFR 178.3620(a), White Mineral Oil
- US Pharmacopeia, most recent edition, Mineral Oil
- National Sanitation Foundation (NSF), category H1, registration number 132493
- Europe Regulation (EU) 10/2011 on plastic material and articles intended to come into contact with foodstuff, White mineral oil

(*): Primol N 542 does not comply with theLiquid Paraffin definition of the European Pharmacopoeia due to the addition of an oxidation inhibitor and because of its high visocsity.

CAS number: 8042-47-5

EINECS number: 232-455-8

INCI name (Europe): Paraffinum Liquidum

CTFA Dictionary name (USA): Mineral Oil

Typical values may vary within modest ranges and specifications may be subject to change.

| Property | Test Method | Typical | Min | Max |
|---|---|---|---|---|
| Appearance | Visual | - | Clear and Bright | Clear and Bright |

| Property | Test Method | Typical | Min | Max |
|---|---|---|---|---|
| Odor | Olfactory | - | Odorless or almost odorless | Odorless or almost odorless |
| Color, Saybolt | ASTM D 6045 | - | + 30 | - |
| Kinematic Viscosity @ 40°C, $mm^2/s$ | ASTM D 445 | - | 90.0 | 110.0 |
| Kinematic Viscosity @ 100°C, $mm^2/s$ | ASTM D 445 | - | 11 | - |
| Density @ 15°C, $kg/m^3$ | ASTM D 4052 | - | 866 | 876 |
| Relative Density @ 25°C/25° | ASTM D 4052 | - | 0.862 | 0.873 |
| Pour Point, °C | ASTM D 5950 | - | - | -12 |
| Flash Point, °C | ASTM D 92 | - | 250 | - |
| Refractive Index, $nD^{20}$ | ASTM D 1218 | - | 1.472 | 1.480 |
| Average Molecular Weight | ASTM D 2502 | - | 510 | - |
| Hydroc. with less than 25 carbons, wt % | ASTM D 6352 | - | - | 2 |
| Volatility @ 10 mm Hg, temp (°C) at which 2.5 % off | ASTM D 1160 | 299 | - | - |
| Volatility @ 10 mm Hg, temp (°C) at which 5 % off | ASTM D 1160 | 303 | 292 | - |
| Volatility @ 10 mm Hg, temp (°C) at which 10 % off | ASTM D 1160 | 308 | 302 | - |
| Carbon Type, % & Paraffinic / Naphthenic / Aromatic | AM-S | 69 / 31 / 0 | - | - |

## Health and Safety

Detailed health and safety information for this product is provided in the Material Safety Data Sheet (MSDS), available upon request through your local sales representative or from www.ExxonMobil.com

## Storage and Handling

Recommended storage and handling procedures for ExxonMobil white oil products are summarised in a separate bulletin available upon request through your local sales representative or from www.ExxonMobil.com

## Further Information

ExxonMobil supplies a range of white oils, process oils, waxes, bitumen and a full range of other lubricants, fuels and chemical products worldwide. Please contact your local ExxonMobil representative, or contact us at www.ExxonMobil.com, for more information on other products.

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