



Primol 542

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 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 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 best 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. As an example, at the date of this publication, Primol 542 can be used as a food additive in USA subject to applicable FDA regulations, while it cannot be used as a direct food additive in European Union Member States

Properties and Specifications

Primol 542 meets the requirements of the following specifications:

- USA FDA, 21 CFR 172.878 and 21 CFR 178.3620(a), White Mineral Oil
- US Pharmacopoeia, most recent edition, Mineral Oil
- National Sanitation Foundation (NSF), registration number 125039
- Purity requirements of European Pharmacopoeia, most recent edition, Liquid Paraffin (*)
- European Directive for plastic materials into contact with food, 2002/72/EC, White Mineral Oil
- The Japan's Specifications and Standards for Food additives, Liquid Paraffin

(*): Primol 542 while not being covered by the European Pharmacopoeia due to its high viscosity, meets all the purity test requirements of this Pharmacopoeia

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 Value	Specification	
			Min.	Max.
Appearance	Visual	-	Clear and Bright	Clear and Bright
Odor	Olfactory	-	absent	absent
Color, Saybolt	ASTM D 156	-	+ 30	-
Kinematic Viscosity @ 40°C, mm ² /s	ASTM D 445	-	90	110
Kinematic Viscosity @ 100°C, mm ² /s	ASTM D 445	-	11	-
Density @ 20°C, kg/m ³	ASTM D 4052	-	863	873
Pour Point, °C	ASTM D 97	-	-	-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	-
Hydrocarbons with 25 carbons and less, wt %	ASTM D 2887	-	-	2
Volatility @10 mm Hg, temp (°C) at which 2.5 % off	ASTM D 1160	294	-	-
Volatility @10 mm Hg, temp (°C) at which 5 % off	ASTM D 1160	298	292	-
Volatility @10 mm Hg, temp (°C) at which 10 % off	ASTM D 1160	303	302	-
Carbon Type, % and Paraffinic / Naphthenic / Aromatic	ASTM D 2140	66 / 34 / 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.

The ExxonMobil logotype (and any other trademarks) are trademarks of Exxon Mobil Corporation or one of its subsidiaries.

ExxonMobil Asia Pacific Ltd
1 HarbourFront Place
#06-00 HarbourFront Tower One
Singapore 098633

+65 6885 5000

<http://www.exxonmobil.com>

Every care has been taken in the preparation of this information. To the extent permitted by applicable law, all warranties and/or representations, express or implied, as to the accuracy of the information are disclaimed, and no liability is accepted for the accuracy or completeness of the same.

Copyright © 2001-2014 Exxon Mobil Corporation. All rights reserved.