



Marcol™ 52

ExxonMobil Specialties , Pacific Islands

Medicinal grade White Oil

Product Description

Marcol 52 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.

Marcol 52 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.

- o CAS number: 8042-47-5
- o EINECS number: 232-455-8
- o INCI name (Europe): Paraffinum Liquidum
- o CTFA Dictionary name (USA): Mineral Oil

Applications

Marcol 52 can be used in a variety of food-contact, cosmetic and pharmaceutical applications (*), subject to the applicable laws and regulations in each country (**).

(*) To limit ingestion and aspiration hazards, Marcol 52 should not be used in nasal, oral or lip care products, or as a food additive other than for food contact materials.

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

Cosmetics

Marcol 52 is used as a component of a great variety of cosmetic products:

- Cleansers
- Hair care products
- Neutral and protective diluents for other cosmetic ingredients such as essential oils
- Other applications such as make-ups and make-up removers.

Marcol 52 provides many practical advantages to the formulation specialist:

- Excellent skin compatibility, low irritancy and comedogenicity
- Very good balance between resistance to bacteria and final biodegradability, with minimal environmental impact.

Pharmaceuticals and Veterinary products

Marcol 52 offers a high level of safety, thanks to its high purity (absence of toxic polycyclic aromatics, heavy metals), the complete destruction of germs in

the high temperature manufacturing process, and specific packaging and handling procedures. Major uses are:

- Adjuvant in vaccines for animals (cattle, chickens, and pigs) where its low viscosity offers optimal efficacy.
- Gelatine capsule manufacture.

Regulations and Claims

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| This product is recommended for use in applications requiring: |
| European Pharmacopoeia Light Liquid Paraffin monograph |

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| This product is registered to the requirements of: |
| NSF H1 |

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| This product meets or exceeds the requirements of: |
| FDA 21 CFR 178.3620(a) |
| US Pharmacopoeia/National Formulary Light Mineral Oil monograph |

Properties and Specifications

| Property | Standard Method(a) | Typical | Min | Max |
|-------------------------------------|--------------------|---------|-----------------------------|-------|
| Appearance | Visual | | Clear and Bright | |
| Odor | OLFACTORY | | odorless or almost odorless | |
| Density @ 15 C, kg/m3 | ASTM D4052 | | 828 | 837 |
| Dynamic Viscosity @ 20 C, mPa.s | CALCULATED | 12 | | |
| Flash Point, Cleveland Open Cup, °C | ASTM D92 | | 150 | |
| Kinematic Viscosity @ 40 C, mm2/s | ASTM D445 | | 7.0 | 8.0 |
| Kinematic Viscosity @ 100 C, mm2/s | ASTM D445 | 2.2 | | |
| Relative Density @ 20 C/20 C | ASTM D4052 | | 0.826 | 0.836 |
| Relative Density @ 25 C/25 C | ASTM D4052 | | 0.824 | 0.834 |
| Pour Point, °C | ASTM D5950 | | | -6 |
| Refractive Index, 20 C | ASTM D1218 | | 1.457 | 1.460 |
| Paraffinic Carbons (Cp), % | AM-S 1805 | 68 | | |
| Naphthenic Carbons (Cn), % | AM-S 1805 | 32 | | |
| Aromatic Carbons (Ca), % | AM-S 1805 | 0 | | |

| Property | Standard Method(a) | Typical | Min | Max |
|----------------|--------------------|---------|-----|-----|
| Color, Saybolt | ASTM D6045 | | +30 | |

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 used 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.aspx>

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