E**∕xonMobi**l

Marcol N 82

ExxonMobil Specialties , Singapore Medicinal grade White Oil

Product Description

Marcol N 82 is a purified mixture of liquid saturated hydrocarbons. It is a colourless, transparent oily liquid and is essentially odourless and tasteless. It is obtainepetroleum through several refining stages, including an ultimate purification by catalytic hydrogenation. Marcol N 82 contains 5 ppm food-grade alpha-toco (vitamin E) as an oxidation inhibitor.

Marcol N 82 is manufactured to exceed the purity requirements of the Pharmacopoeias. Due to its superior chemical inertness, it demonstrates better color 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

Marcol N 82 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 N 82 should not be used in nasal, oral or lip care products, or as a food additive other than for food contact mate

(**) User must check compliance with applicable regulations

Cosmetics

Marcol N 82 is widely used as a component of a great variety of cosmetic products:

- Emollients and moisturisers (cleansing oils and milks, body lotions and creams, suntan lotions and milk, make-up powders)
- Baby products (shampoos, baby oils, bath oils)
- Hair care products (hot oil treatments, gels, scalp pomades)
- Neutral and protective diluents for other cosmetic ingredients such as essential oils
- Other applications such as bath cubes, anti-perspirant and deodorant sticks.

Marcol N 82 provides many practical advantages to the formulation specialist:

- Excellent skin compatibility, very low irritancy and no comedogenicity
- Very good balance between resistance to bacteria and final biodegradability, with minimal environmental impact.

Pharmaceuticals

Marcol N 82 offers a high level of safety, thanks to its high purity (absence of toxic polycyclic aromatics, heavy metals), the complete destruction of germs in th temperature manufacturing process, and specific packaging and handling procedures.

Marcol N 82 is an ingredient of pharmaceutical topical ointments and petroleum jellies. It can be used as a pelletiser aid, and in the manufacture of gelatine capsules

Properties and Specifications

Marcol N 82 meets the requirements of the following specifications:

- USA FDA 21 CFR 178.3620(a), White Mineral Oil
- National Sanitation Foundation (NSF), category H1, registration number : 132487
- US Pharmacopeia/National Formulary , most recent edition, Light Mineral Oil monograph (*)

(*) Marcol N 82 does not comply with the Light Liquid Paraffin definition of the European Pharmacopoeia due to the addition of an oxidation inhibitor.

CAS number: 8042-47-5 EINECS number: 232-455-8

Marcol N 82

INCI name (Europe): Paraffinum Liquidum

CTFA Dictionary name (USA): Mineral Oil

| Property | Test Method | Typical | Min | Мах |
|--|-------------|---------|-----------------------------|----------------------------|
| Appearance | Visual | - | Clear and Bright | Clear and Bright |
| Odour | Olfactory | - | Odorless or almost odorless | Odorless or almost odorles |
| Color, Saybolt | ASTM D 6045 | - | + 30 | - |
| Kinematic Viscosity @ 40°C, mm²/s | ASTM D 445 | - | 14.5 | 17.5 |
| Kinematic Viscosity @ 100°C, mm²/s | ASTM D 445 | 3.6 | - | - |
| Density @ 15 °C, kg/m³ | ASTM D 4052 | | 845 | 858 |
| Relative Density @ 25 °C/25 °C | ASTM D 4052 | | 0.841 | 0.855 |
| Pour Point, °C | ASTM D 5950 | - | - | - 6 |
| Flash Point, °C | ASTM D 92 | - | 182 | - |
| Refractive Index, nD ²⁰ | ASTM D 1218 | | 1.464 | 1.470 |
| Carbon Type, $\%$ and Paraffinic / Naphthenic / Aromatic | AM-S 1805 | 65/35/0 | - | - |

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

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 loca representative or from www.ExxonMobil.com

Storage and Handling

Information can be found in the "Recommended Storage Conditions for Medicinal White oils" bulletin.

Further Information

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

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