

WHITE OILS

MARCOL, PRIMOL, BAYOL

June 2009



MARCOL, PRIMOL and BAYOL are brand names for highly refined white mineral oils which are designed for use in various industrial products and applications; they offer the following advantages and benefits:

- ◆ Water-white colour
- ◆ Non-staining
- ◆ Odour free
- ◆ Non reactive
- ◆ Low aromatic contents
- ◆ Suitable for direct and indirect food contact applications

Primary Applications

Imperial Oil's white mineral oil product line consists of four highly refined petroleum products that can be used in a variety of specialty applications where a high degree of purity and chemical stability is required; this includes pharmaceutical and drug formulations, cosmetics, food processing and packaging, plastics and chemical manufacturing, and textile production.

BAYOL 35

This is a technical white oil which does not meet one or more of the USP or NF requirements, but whose colour and degree of refining are adequate for certain processing applications. It meets the FDA 21 CFR 178.3620(b) regulations for indirect food related use. Typical applications for BAYOL 35 include its use as a plasticizer for rubber products used in food packaging, as a drawing or forming oil for the manufacture of food containers from sheet metal or foil, as a light lubricant for food-processing machinery, as a component of food processing defoamants, or as fibre lubricant in the manufacture of food packaging materials.

BAYOL 35 can also be used as a base for liquid and aerosol sprays. Its low odour and good anti-staining properties make it especially suitable for household spray formulations. It is suitable for use in compounding a variety of industrial products including disinfectants, polishes, hand cleaners, liquid soap and floorsweeping compounds.

MARCOL 7

This white oil meets the rigid National Formulary (NF) standard and the FDA regulations for direct food contact (21 CFR 172.878 and 21 CFR 178.3620(a)). Examples of direct food contact include the use of this oil as a release agent in the baking and processing of bread products, as a coating on fruits and eggs to retard moisture loss and to inhibit oxidation, and as a rust-preventive coating on food processing dies and extruder heads. In indirect food related applications MARCOL 7 can be used as a paper and paperboard coating, as a plasticizer for polymeric coatings used in food packaging, and as a machinery lubricant in food processing applications. In the manufacture of animal feeds, it is frequently used as a coating to reduce dust formation, to lubricate the dies used in feed pelletizing, and to improve the moisture resistance of the pellets and mineral supplements.

PRIMOL 185 and PRIMOL 355

These white oils meet the rigid standards of the U.S. Pharmacopoeia (USP) and the FDA regulations for direct food contact (21 CFR 172.878 and 21 CFR 178.3620(a)). These white oils are often used in pharmaceutical

formulations as processing aids and in many cosmetic products. In the plastics industry, they can be used as processing or reaction media, or as extenders or plasticizers for polymers and other resins. In textile applications, white oils are used in fiber formulations to reduce abrasion between strands during processing and weaving and to control the build-up of electrical charges and static. The oxidation stability and anti-staining characteristics of white oils are very important in such textile applications to minimize fabric discoloration.

Precautions The Imperial Oil white mineral oil product line is manufactured from highly refined paraffinic basestocks. As with all petroleum products, good personal hygiene and careful handling should always be practiced. Avoid prolonged contact with the skin, splashing into the eyes, ingestion, or vapour inhalation. Please refer to the Esso Material Safety Data Sheet for further information.

Note: These products are NOT controlled under the Canadian WHMIS legislation.

Typical Properties

	BAYOL 35	MARCOL 7	PRIMOL 185	PRIMOL 355
Grade *				
Agriculture & Agri-Food Canada US National Formulary / Pharmacopoeia	Tech	n & n3 NF	n3 USP	n3 USP
Density, 15°C, kg/m ³	791	850	863	865
Colour, Saybolt	+30	+30	+30	+30
Kinematic Viscosity, cSt @ 40°C	2.3	12.8	35.7	75.3
Flash Point, COC, °C	-	185	206	258
Flash Point, TCC Closed Cup, °C	96	-	-	-

* Customer must check compliance with applicable regulations in country of use

The values shown above are representative of current production. Some are controlled by manufacturing and performance specifications while others are not. All may vary within modest ranges.