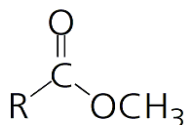


PRODUCT INFORMATION SHEET

CE-1618BL, Methyl Palmitate/Oleate (Methyl Hexadecanoate/Octadecenoate)

DESCRIPTION



CAS Number: mixture of 67762-38-3 and 112-39-0

PHYSICAL PROPERTIES:

(All properties @ 760mmHg unless stated)

Specific Gravity: 0.9 at 36°C (97°F)
 Vapor Pressure: <5 mmHg at 20°C (68°F)
 Melting Point: 10°C (50°F)
 Viscosity: 4cp at 36°C (97°F)
 Boiling Point: 204°C (399°F)

Is a blend comprised of Methyl Palmitate (C16, 25-32%) and Methyl Oleate (C18, 65-75%); 'R' in the structural diagram above represents a saturated alkyl chain of carbon atoms equal to 15 or 17. Not including the methyl ester group, there are an even number of carbon atoms in the molecule. It is a waxy white to yellow solid under ambient conditions with a musty odor.

PRODUCT NOTES

Insoluble in water under ambient conditions, but suitable solvents include ethyl ether, and mineral oil. May attack, swell and soften rubber and plastic. Concrete swells and deteriorates with contact. Glycerine can settle out in storage.

GENERAL INFORMATION

APPLICATION USES

Potential intermediate and end use applications include soapmaking, agriculture, cosmetic ingredients, amides, chlorinated lubricants, cutting oils, defoamers, gear oils, isopropyl esters, jet lubricants, methyl ester sulfonates, plasticizers, PEG Esters, rolling oils, sulfurized lubricants, low-VOC solvents, metalworking fluids, production of plasticizer alcohols, emulsifiers, stabilizers, resins, flavorings, fracking fluids, and solvents for inks, paint removal, and other applications.

OIL DERIVATION/ALLERGEN/BSE/MICROBIAL

- All of our brands are produced in P&G Chemicals' global network. They are manufactured from naturally occurring vegetable oils.
- Bovine Spongiform Encephalopathy (BSE) and Transmissible Spongiform Encephalopathy (TSE) are not a concern.
- No gluten/wheat, corn, dairy, egg, fish/shellfish, sulfites, yeast, starch, MSG, peanut, other nut, rice, potential allergens are present. No preservatives or additives are present
- At the low vacuum and high temperature at which our process operates, our products are not micro-susceptible.

RETEST DATE

Stability is affected by how a product is stored. We expect the product to be stable if it is kept under the recommended Storage and Handling conditions. We recommend retesting the product for Sensitive Properties every 24 months.

(Information listed in Storage and Handling section)

P&G CHEMICALS DOES NOT PROVIDE SHELF LIVES OR EXPIRY DATES.

STORAGE AND HANDLING (recommended)

Storage Temp Targets: Target: 36° C (97° F)
 Max Steam, psi: 150
 Load out filter (reco): 5 micron
 Sensitive Properties: Color, Moisture, Acid Value
 Railcar or Tank Truck: Carbon Steel
 Storage Tank: Carbon Steel
 Pumps and Lines: Carbon Steel

Handling Temp Min-Max: 32° to 41°C (90° to 105°F)
 Agitation/Recirculation: Required only when heating
 Nitrogen Blanket: Not necessary
 (<1% O₂)

For further details, or samples of this material or other P&G Chemicals products, visit our website:

www.pgchemicals.com

IMPORTANT NOTE: This technical product information and suggestions for use, while believed to be accurate and reliable, is given without creating any guarantee or warranty of any kind expressed or implied. Purchaser assumes all risk in acting on this information provided by Procter & Gamble representatives. Since product's specifications may vary on customers' basis, each purchaser is urged to perform their own tests, experiments and investigations in the use of Procter and Gamble products and for purposes of determining compliance with applicable Federal, State and local laws and regulations. Nothing contained herein shall be construed as a recommendation to use any product in connection with existing patents covering any material or its use. Moreover, no license is to be implied under any Procter & Gamble patents relating to uses of the above.