



Technical Data Sheet

ICC-Ethoxylated Products

Trade Name: COE36

Chemical Name: CASTOR OIL ETHOXYLATE 36

Grade: Chemical

Ethoxylated castor oil is a nonionic surfactant having many industrial applications. Polyoxyethylene castor oil derivatives are complex mixtures of various hydrophobic and hydrophilic components. In the polyethoxylated castor oil, the hydrophobic constituents comprise about 80% of the total mixture, the main component being glycerol polyethylene glycol ricinoleate. Other hydrophobic constituents include fatty acid esters of polyethylene glycol along with some unchanged castor oil. The hydrophilic part consists of polyethylene glycols and glycerol ethoxylates.

Application

Ethoxylated castor oils are excellent emulsifiers for a wide variety of materials including oils, fats, waxes, polyesters and acrylics. They are used as softeners, rewetting agent, pigment dispersants and dye assistants (e.g., leveling agents) in the paint, textile and leather industry. Ethoxylated castor oils can also be used as lubricant additives and emulsifiers in lubricants for plastics.

Storage and Handling

COE36 should be stored in closed containers between 10 °C and 40° C far away from oxidizing agents, excessive heat, and ignition sources. Do not store or use near heat, spark or flame. Store out of sun. Do not puncture, drag or slide this container. Drum is not a pressure vessel so never use pressure to empty. COE36 is stable and under normal conditions does not corrode iron and steel. Since most surfactants are slightly hygroscopic, they should be kept in closed containers to avoid unnecessary moisture pick-up.

Shelf life: 24 months from the date of manufacture.

TEST	STANDARD TEST METHOD	STANDARD
Appearance at 25°C	—	Clear Liquid
Average molecular weight, g/mol	Calculated	2470
pH (5% in water)	ASTM D-1172	5-7
Cloud point, °C(10% in 25% BDG)	ASTM D-2024	68-75
Density at 25°C, g/ml	ASTM D-1298	1.04±0.02
Saponification No.	ASTM D-5558	64-69
HLB, calculated	Calculated	12.3
Water, percent	ASTM E-203	Max. 0.5
Viscosity at 25°C, cP	Calculated	340±10

Safety

COE36 has a degreasing effect on the skin, and to prevent irritation splashes should be rinsed off immediately with water and soap or alcohol solution.

In the event of accidental contact, proceed as follows:

Eyes: irrigate eyes with a heavy stream of water for at least 15 to 20 minutes.

Skin: wash exposed areas of the body with soap and water.

Ingestion: seek medical care urgently.