



Technical Data sheet

November 2020

Polyester of adipic acid with Polyhydric alcohols

ADILEN 450[®]

Very high viscosity

Specifications	Value
Density at 20 °C g/cm ³	1,152 – 1,156
Viscosity at 20 °C p	400 - 500
Acid value mg KOH/g	≤ 5
Boiling point °C	No adequate
Vapor pressure at 20°C	< 0,1
Gardner colour	≤ 1
Flash point °C	280
Hydroxyl value	≤ 30
Freezing point °C	≅ - 25
Solubility in water	Insoluble
Appearance	Viscous

Average molecular weight	4.500
CAS number	73018-26-5
CN code	2917120090

Description

Adilen 450 is a very high viscosity polymeric plasticizer, is a slightly modified derivative of Propylene glycol Adipate that allows easier handling and processing in PVC and rubber industries.

Function

Adilen 450 is a polymeric plasticizer with very high molecular weight. The most important properties are: no volatility, no migration and no extraction, providing good resistance to deformations by heat and improving the shelf life of the final product.

Properties

Adilen 450 is very resistant to flow oils, fats, and aliphatic hydrocarbons. Little flexibility at cold temperatures.

Adilen 450 is a high viscosity polymeric plasticizer. For this reason, handling can be more difficult, if the temperature decreases significantly.

Adilen 450 can be blended with other monomeric primary plasticizers to get the best value for money.

Adilen 450 is a polymeric plasticizer, but it is necessary to incorporate **Plasticizer E** (Epoxidized Soybean oil), to stabilize for conditions of the sunlight and heat.

Legislation

Adilen 450 is categorized as a plastic material intended to come into contact with food. Regulation 1282/2011 with the European reference number 76807 with SML 30/60 mg/kg with the following FDA regulations: 175.105, 175.300, 177.1210, 177.1390 and 177.2420.

Registered TSCA (USA), DSL (Canada), ENCS (Japan) and KECI (Korea).

REACH

In accordance with regulation 1907/2006, by article 6, Adilen 450 is exempt from registration as the percentage of monomer is less than 2% by weight (w/w).

Application

Adilen 450 is used in many applications in the plastic and rubber transformer industries due to its resistance to volatility, extraction and migration. **Adilen 450** is very suitable for: Films for food wrap, pipes, conveyor belting and shoes and in all material that needs non-migration.

Dosage

6–50 % about resins, depending on application

Packaging

IBC 1.100 kg and drums 230 kg.