MPL Products
26 Baddesley Way
Canning Vale, Western Australia
Australia, Post Code – 6155
ph: +61421837661
email: mplexim61@gmail.com

DCOFA
Product Data Sheet

GOFAIDS Commonly known as DCOFA are high diene fatty acids based on castor oil. There types are offered depending on the conjugation. High-DCO FA(H), Medium-DCOFA (M) and Low-DCOFA (L).GOFACIDS are liquids at room temperature, having a water-white to pale yellow color.

SPECIFICATION

	GOFACIDS (H)	GOFACIDS (M)	GOFACIDS (L)
Specific Gravity @ 25^0 C	0.903-.905	0.903-.905	0.903-.905
Refractive Index @ 25^0 C	1.473-1.477	1.473-1.477	1.473-1.477
Color* Regular	2 max	2 max	2 max
Color* Special	1max	1 max	1 max
Acid Value*	195-205 mgKOH/g	195-205 mgKOH/g	195-205 Value
Iodine* (Wijis)	123 gI_2/100 g min	127 gI_2/100 g min	130 gI_2/100 g min
Saponification Value*	198-208 mgKOH/g	198-208 mgKOH/g	198-208 g KOH/g
Hydroxyl Value*	5 mgKOH/g max	5 mgKOH/g max	5 mgKOH/g max
GLC Analysis			
Lower Components	1.2- 1.4 %	1.2- 1.4 %	1.2- 1.4 %
Palmitic Acid	1.3-1.5 %	1.3-1.5 %	1.3-1.5 %
Stearic Acid	1.8-2.0 %	1.8-2.0 %	1.8-2.0 %
Oleic Acid	4-6 %	4-6 %	4-6 %
Linoleic (Non Conj.)	25-30 %	30-45 %	45-55 %
Linoleic* (Conj.)	60-66 %	45-60 %	35-45 %
Total Linoleic Acid	88-95 %	88-95 %	88-95 %
Linolenic Acid	0.5 % max	0.5 % max	0.5 % max
UV Spectrophotometer			
Conjugation by UV (Factor 0.91)	50 min	40 min	30 min

We can meet buyer specification on request. (*) Values reported on COA.

ADVANTAGES

The advantages in using GOFACIDS over oils in alkyd resins are follows:

1. One stage Direct Esterification at 30-40^0 C lower temperature & without any metallic Catalyst. This also increases the kettle turnover.
2. Minimum 88 % linoleic acid & total absence of linolenic acid, implies less side reaction and less yellowing.
3. Absence of rosin acids & minimum Unsaponifiable.
4. Alkyd resins with sharper M.W distribution, high Tg, better film formability, uniform properties, lower color and improved clarity.

The advantages of GOFACIDS over fatty acids e.g. soyabean, tungoils safflower, linseed oil, TOFA are.

1. High percentage of Conjugation and total linoleic acid, gives rapid drying

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2. No linolenic, implies very less yellowing in exterior environments
3. No resin acids and minimum unsaponifiables imply clear products obtained
4. Better water and alkali resistant properties in the paints and inks
5. Stronger copolymerization property with vinyl resins, implies stabilities of paint vehicles are increased
6. Lower temperature for esterification, implies lighter colored products.

APPLICATIONS

SURFACE COATINGS

GOFACIDS based alkyd resins & polyamides make up superior constituent in numerous paint & printing inks formulations. Styrenated epoxy esters of these fatty acids are used prime quality automotive paints.

GOFACIDS are also used in the manufacture of high solids alkyds, acrylic and epoxy ester resins which are useful for interior can coatings, appliance finishes, automotive topcoats, primers, coil coatings, marine finishes, overprint varnishes, high –speed printing inks.

CHEMICAL INTERMEDIATE

GOFACIDS, because of their conjugated dienes structure, ae used in more specialized chemicals via DIERS-ALDER reactions.

PACKING

In 190 kg HM-HDPE/21 MT Flexi ,900 kg IBC , Liquid Bulk Container