



Renewable resources.  
Endless possibilities.™

Oleochemicals





# Oleochemicals

## TALL OIL FATTY ACIDS (TOFA) & DISTILLED TALL OIL (DTO)

SYLFAT® products are tall oil fatty acids with a low level of rosin acids and unsaponifiables. SYLFAT® provides a combination of light colour, very good colour stability and air drying properties.

SYLFAT® products have a partially unsaturated C18 backbone and are used in a wide range of applications including alkyd resins, fuel additives, dimer acids, surfactants, cleaners, oil field chemicals, lubricant esters and other chemical derivatives.

SYLFAT® 2 is a standard TOFA grade for general use.

SYLFAT® 2LT is a specialty grade of TOFA with excellent low temperature properties typically used as fuel additive to improve lubricity of low sulphur diesel.

SYLVATAL® products are distilled tall oils (DTO) containing 10–30% rosin acids. They combine the advantages of fatty- and rosin acids and are therefore an ideal raw material for functional products like metal working fluids, oil field chemicals, soaps, cleaners and alkyd resins. Varnishes for indoor use that are based on DTO, have hard films with high gloss and excellent water and alkali resistance. Magnesium soaps of DTO are very efficient dispersants for fuel oils.

	Colour Gardner	Acid Value mg KOH/g	Iodine Value mg Iodine/g	Pour Point °C	Cloud Point °C	Viscosity/ 20 cP	Density 20 g/cm <sup>3</sup>	Oleic %	PUFA's %	FFA's %	Rosin Acids %	Unsaps %
SYLFAT® 2	4.5	194	155	-8	-1	30	905	29	64	96	1.8	2.0
SYLFAT® 2LT	4	195	155	-12	-6	30	905	28	66	96	1.8	2.0
SYLVATAL® 10S	5	192		-5	5	50	915	26	59	87	10	2.5
SYLVATAL® 20S	5.5	189		-10	10	70	930	21	53	77	20	2.5
SYLVATAL® 20/25S	5.5	188		-10	10	80	935	20	49	74	23	3
SYLVATAL® 25/30S	6.5	187		-10	20	85	940	18	49	70	27	3
SYLVATAL® 25/30LT	5.5	187		-3	3	120	940	15	50	68	27	3

Typical Values



## OUR INNOVATIVE REFINING TECHNOLOGY

With our world class manufacturing practices and the largest distillation facilities, we are able to generate the highest value from Crude Tall Oil. With increased energy efficiency and low levels of emission and waste, we have been granted various environmental certificates.

## TALL OIL ROSINS AND SOAPS

SYLVAROS® 85 is an unmodified tall oil rosin (TOR) with a high content of abietic type rosin acids. It is especially suited for the manufacture of fortified rosin, paper size and ink resins.

SYLVAROS® and ABIETA™ Disproportionated Rosin Soaps are used as emulsifiers in the polymerization process of styrene-butadiene rubber, nitrile rubber, polychloroprene and acrylonitrile-butadiene-styrene plastics. They are also suitable for the preparation of pigments, as anchoring agent and in the adhesive industry to improve properties of adhesives on basis of casein or polymer dispersions.

SYLVAROS® and ABIETA™ Disproportionated Rosins can be used for the manufacture of emulsifiers for the polymerization process and for pigment coating. DR grades are further suitable for the formulation of solvent based adhesives and hotmelts as well as in the manufacture of adhesives tapes and rubber products. Other applications are lacquers, soldering fluxes, sealants, paper sizing agents, marine coatings and the production of esters and other rosin derivatives.

	Colour US Rosin Grade	Acid Value mg KOH/g	Abietic acid %	Dehydroabietic acid %	Unsaps %	Solid Content %
SYLVAROS® 85	WW	168	38	21	-	-
SYLVAROS® DRS 214	WW	10	0	min. 35	max. 10	80
SYLVAROS® DRS 215	WW	10	max. 2	min. 35	max. 10	84
SYLVAROS® DRS 731	WW	11	0	min. 34	max. 10	70
ABIETA™ DRS 314	X	10	0	min. 38	max. 10	80
ABIETA™ DRS 315	X	10	0	min. 38	max. 10	80
ABIETA™ DRS 835	X	11	0	min. 37	max. 10	70
ABIETA™ DRS 836	X	11	0	min. 37	max. 10	70
SYLVAROS® R 100A	WG	170	30-60	2-15	max. 10	-
SYLVAROS® DR 731D	WW	165	0	min. 45	max. 13	-
ABIETA™ DR 835A	X	160	0	min. 52	max. 13	-
ABIETA™ DR 836A	X	160	0	min. 50	max. 13	-

Typical Values

Our **green** tradition  
drives your **green future**

## DIMER ACIDS

Arizona Chemical's UNIDYME® products are dimerised fatty acids specially designed for the manufacture of polyamide curing agents,

other high molecular weight intermediates and certain specialist additive applications.

	Colour Gardner	Acid Value mg KOH/g	Viscosity @ 25 °C	Dimer Acids %	Monomer Acids %	Polymer Acids %	Unsaps %
UNIDYME® 14	4.5	194	8,900	93.3	0.2	6.5	0.2
UNIDYME® 18	7	194	10,500	81.8	1.5	16.7	0.2
UNIDYME® 22	7	192	10,000	81.3	2.2	16.5	0.2
UNIDYME® 30	max. 8	192	13,000	82	max. 2.8	17	0.2

Typical Values

## MONOMER ACIDS

CENTURY® MO6 is a special fatty acid product that contains both saturated and unsaturated C-18 fatty acids. Branched chain iso-oleic acids constitute the main portion with virtually no polyunsaturated fatty

acids. It finds applications in liquid soaps and detergents, and also in esters for various lubricant applications such as metalworking and textile lubricants.

	Colour Gardner	Acid Value mg KOH/g	Unsaps %	Iodine value mg Iodine/g	Titre °C	Viscosity @ 38 °C	Iso - Oleics %	Oleic/Elaidic %	Other Acids
CENTURY® MO6	2	170	7	74	32	35	46	25	12

Typical Values

## TERPENE PRODUCTS

SYLVAPINE® 402 is an alpha-pinene used as an intermediate for making camphor, isobornyl acetate, aroma chemicals, terpineol, pine oil, terpene resins and insecticides. It is also used as a cleaner, solvent, disinfectant and as a component in manufacture of polyterpene resins for the adhesives industry.

SYLVAPINE® 405 is delta-3-carene used as an intermediate for making camphor, perfumes, terpineol and insecticides.

SYLVAPINE® 405 can also be used as a cleaner, solvent, disinfectant and as a component for polyterpene resins.

SYLVAPINE® 402SF is a low sulphur grade alpha-pinene.

	Colour Pt/ Co-scale	Density/20 g/cm <sup>3</sup>	Alpha - Pinene %	Camphene %	Beta - Pinene %	Delta 3 - Carene %	Water %	Sulfur ppm
SYLVAPINE® 402	15	859	96	1.3	2	<0.5	0.02	50
SYLVAPINE® 402SF	5	859	96	1.3	2	<0.5	0.02	5
SYLVAPINE® 405	50	861	4		17	62	0.1	90
SYLVAPINE® 405T	50	861	4		17	62	0.1	90

Typical Values

Arizona Chemical cannot anticipate all circumstances, conditions or applications in which this information, Arizona Chemical products, or the products of other suppliers in combination with Arizona Chemical products may be used. Arizona Chemical accepts no responsibility for results obtained by the application of this information or for the safety and suitability of its products, either alone or in combination with other products. The user of Arizona

Chemical products bears the responsibility of determining their suitability for a particular application or formulation. Unless otherwise stated in writing, Arizona Chemical sells its products without warranty. The Buyer assumes all responsibility and liability for loss or damage arising from the handling and use of Arizona Chemical products, whether used alone or in combination with other products.

FATTY ACID ESTERS

UNIFLEX® esters are obtained by reaction between pine derived fatty acids with various alcohols. They are fatty esters based on monobasic, dibasic and polybasic acids used in gear oils, chainsaw oils, hydraulic fluids, engine oils, 2-stroke oils, friction modifier additives and metal working fluids.

	Colour Gardner	Acid Value mg KOH/g	Iodine Value	Viscosity @ 40 °C	Viscosity Index	Pour Point °C	Cloud Point °C	OH-Value mg KOH/g
UNIFLEX® 102E	7	<0.1	95	96	141	-40	-40	1
UNIFLEX® 302E	8	0.5	130	6	210	-35	-25	1
UNIFLEX® 306E	6	3	80	9	150	-5	-3	5
UNIFLEX® 668E	7	15	109	65	170	-8	-7	30
UNIFLEX® 901E	6	10	147	130	194	-55	-50	7
UNIFLEX® 907E	6	6	134	430	145	-33	-33	43
UNIFLEX® 935E	6	16	139	68	182	-36	-20	30
UNIFLEX® 936E	7	3	80	97	138	-7	0	40
UNIFLEX® 939E	5	5	138	46	185	-48	-40	15
UNIFLEX® 939LAN	6	1	140	46	185	-48	-40	15
UNIFLEX® 1803E	-	<5	80	10.7@100	-	19	24	-

Typical Values



Our products  
are everywhere

Our raw materials are Crude Tall Oil and Crude Sulphate Turpentine. These are natural products of sustainable forestry and co-products of the pulp industry. When refined, they offer environmentally friendly raw materials for industrial and everyday products such as lubricants, hydraulic fluids, fuel additives, adhesives, rubber, tires, paint, chewing gum, printing ink, fragrances, plastics, household cleaners, soap, and paper.

## Sustainable solutions globally

Arizona Chemical is headquartered in Jacksonville, USA with the European head office in Almere, the Netherlands. We have ten production sites in the US and Europe. Through our global network of more than 60 sales offices and distributors, we are able to serve our customers all over the world.

### Contact us:

**Principle Executive Offices:**  
Jacksonville, Florida, US  
Tel: +1 800 526 5294

Almere, The Netherlands  
Tel: +31 36 5462 800

**Representative Offices:**  
Miami, Florida, US  
Tel: +1 305 377 8754

San Juan del Rio, Mexico  
Tel: +52 427 272 99 85

Singapore  
Tel: +65 6253 8500

St. Petersburg, Russia  
Tel: +7 812 336 65 14

[www.arizonachemical.com](http://www.arizonachemical.com)

