



products from renewable sources



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Esterifying

is our attitude

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Enhancing your *Natural* Portfolio

Shared *Expertise*

Temix Oleo was formed in October 2014 by the merger of Oleochimica Italia Srl (previously Undesa Italia) and Temix International. Given its roots, the new company is based in strong historical traditions and values, while offering extensive expertise in the respective industries of its predecessors: detergents and cosmetics (Temix International), and lubricants, rubber and other industrial application products (Oleochimica Italia). Temix Oleo combines its experience in the distribution of raw materials, selected mainly from renewable sources, together with the technology and experience of Oleochimica Italia in ester and fatty acid production.

Real Sustainability

Now a well-known resource for specialty oleochemical esters, Temix Oleo focuses on sustainable chemistry, promoting the use of selected renewable and biodegradable raw materials. Even internally, Temix Oleo promotes eco-compatible business management practices, encouraging its team to continually seek innovative, sustainable and qualitative solutions.

R&D/Green Chemistry

With an ever-changing market, the ability to innovate is paramount. Temix Oleo continually invests in technological innovation, particularly through its research and development (R&D) efforts. As the company develops new products, it embraces the principles of green chemistry.

Customized *products*

Temix Oleo has the ability to develop tailor-made products designed to meet each customer's unique needs. For more information on the technical details of this process, our sales office in Italy or our U.S. distributor would be happy to help you.

Our product range

is based on a variety of raw materials, including:

Ethylhexyl Alcohol

Isopropyl Alcohol

Glycerol

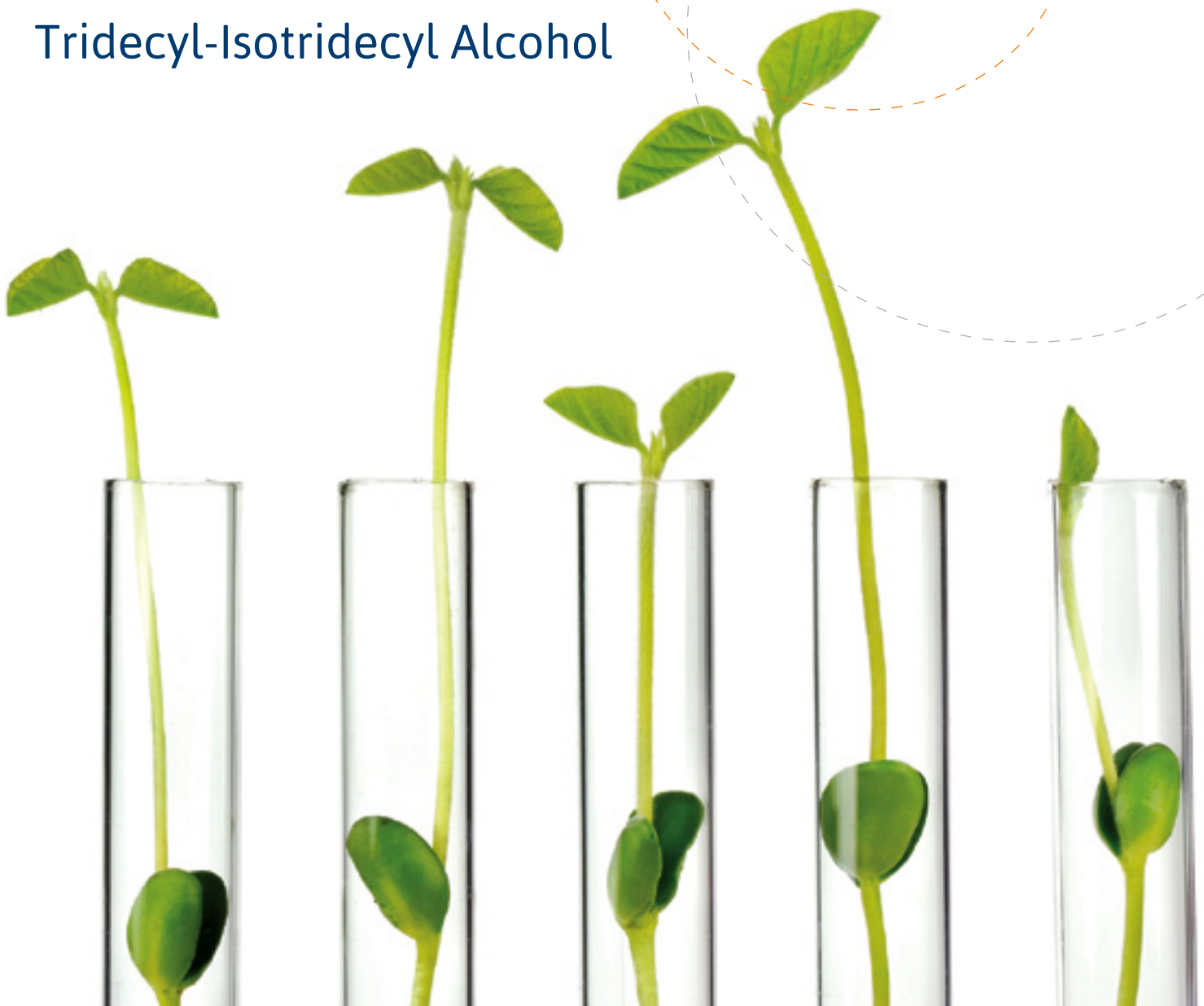
Oleic Acid

Isononyl Alcohol

Stearic Acid

Cetyl/Cetearyl Alcohol

Tridecyl-Isotridecyl Alcohol



Emollients

Enhancing Smoothness

Emollients are products that have softening and smoothing properties. They promote general smoothing of the skin and diminish facial lines through plumping of individual corneocytes.

These effects may be simply due to the hydration imparted by the occlusive property of the emollients. They can also serve to lubricate the skin's surface and diminish the rough feeling associated with the dead cells of the outer skin layer.

Emollients come in many categories, ranging from water-soluble and oil-soluble to refatting agents. In selecting cosmetic products, present-day consumers gravitate toward those perceived as natural, along with those having lighter, non-greasy textures and additional conveniences like two-in-one function, quick-drying, long-lasting and effective performance.



Emollients *Application guide*

Commercial Name	INCI	Sun Care	Body Care	Face Care	Hair Care	Make Up	AP/Deo
TEMEST 2EHS	Ethylhexyl Stearate		***	*			
TEMEST 2EHP	Ethylhexyl Palmitate		***	*			
TEMEST 2EHC	Ethylhexyl Cocoate		***		**		
TEMEST 2EHI	Ethylhexyl Isononanoate	**			***	***	***
TEMEST 2EHL	Ethylhexyl Laurate		***	*	*		*
TEMEST J30	Di Ethylhexyl Sebacate	***	**		**	**	
TEMEST J05	Di Ethylhexyl Adipate	***		**	*	**	**
TEMEST J65	Ethylhexyl Oleate		**	*	**		
TEMEST 99	Isononyl Isononanoate	*		***	*	***	*
TEMEST 810	Caprylic/Capric Triglyceride	***	**	*		**	
TEMEST GMO	Glyceryl Oleate		***	**	***		
TEMEST GMS	Glyceryl Stearate	**	**				
TEMEST GTO	Triolein		**			**	
TEMEST E05	Di Butyl Adipate	***		*			***
TEMEST E30	Di Butyl Sebacate	***		*			***
TEMEST ALB	C12-15 Alkyl Benzoate	***				***	**
TEMEST TEC	Triethyl Citrate						***
TEMEST CTE	Cetearyl Ethylhexanoate	***	**	**	**	**	
TEMEST CTN	Cetearyl Isononanoate	**	*	**	**	**	**
TEMEST COT	Cetyl Caprylate	*	**	**	*		
TEMEST CTP	Cetyl Palmitate	*	**	**	*		
TEMEST IPP	Isopropyl Palmitate	*		**	**	**	**
TEMEST IPM	Isopropyl Myristate	**	**			**	**
TEMEST IPMP	Isopropyl Myristate Isopropyl Palmitate	**	**			**	**
TEMEST DO	Decyl Oleate		**		**		
TEMEST TMO	Triethylhexyl Trimellitate	***		**	*	***	**
TEMEST TMID	Triisodecyl Trimellitate	***	**		**	***	



Emollients *Varying Characteristics*

The selection of an emollient or a blend of emollients depends on various characteristics, including:

Chemical Structure

Polarity

Spreading Value

Molecular Weight

Hydrolytic Stability

Rheological Properties

Solubilizing Properties

Polarity

The polar emollients, mostly triglycerides, esters and liquid waxes, avoid clogging the skin pores, thus allowing the skin to breathe. Non-polar emollients provide a good protective barrier for moisture retention. Polarity is also an important factor for the stabilization of W/O (water in oil) formulations.

Spreading

The spreading values of emollients depend on their chemical structure, consistency and molecular weight. They provide information about the fatty characteristics of an emollient, which play an important role in assessing an emollient. Spreading values show how regularly an oil spreads on the irregular skin surface and how it penetrates and disappears from the skin surface.

Branched Chain Esters

Due to their good spreading characteristics and consistent viscosity despite the temperature, saturated branched chain esters have gained attention. Human sebum contains high proportions of branched chain fatty acids. Sebum, however, is a highly unstable material prone to discoloration and the formation of malodorous decomposition products through autoxidation. Synthetic, stable and saturated branched chain esters are good substitutions for natural skin lipids.

Emollients *Typical Product Characteristics*

Commercial Name	INCI	Polarity	Spreading Value	Feeling on the Skin	Molecular Weight	Cloud Point	Refractive Index
TEMEST 2EHS	Ethylhexyl Stearate	Medium	Medium	Medium/Light Feeling	396	5	1.465
TEMEST 2EHP	Ethylhexyl Palmitate	Medium	Medium	Medium/Light Feeling	365	-3	1.445
TEMEST 2EHC	Ethylhexyl Cocoate	Medium	Medium	Medium/Light Feeling	360	-5	1.455
TEMEST 2EHI	Ethylhexyl Isononanoate	Medium	Medium	Non-Oily, Silky Touch	270	-30	1.44
TEMEST 2EHL	Ethylhexyl Laurate	Medium	Medium	Medium/Light Feeling	312	0	1.445
TEMEST J30	Di Ethylhexyl Sebacate	High	Medium	Velvet Sensation, Excellent UV Solubilisation	426	-30	1.442
TEMEST J05	Di Ethylhexyl Adipate	High	High	Non-Oily, Silky Touch	370	-45	1.442
TEMEST J65	Ethylhexyl Oleate	Medium	Medium	Dry Emollient	394	-20	1.458
TEMEST 99	Isononyl Isononanoate	Medium	High	Non-Oily, Silky Touch	284	-15	1.435
TEMEST 810	Caprylic/Capric Triglyceride	Medium	Medium	Rich Skin Feeling, Excellent UV Solubilisation	500	-5	1.445
TEMEST GMO	Glyceryl Oleate	Medium	Low	Refatting Agent	370	15	1.4833
TEMEST GMS	Glyceryl Stearate	Medium	Low	Refatting Agent	358	59	1.465
TEMEST GTO	Triolein	Medium	Low	Conditioning Agent	961	5	1.477
TEMEST E05	Di Butyl Adipate	High	High	Non-Oily, Silky Touch	260	-15	1.445
TEMEST E30	Di Butyl Sebacate	High	High	Non-Oily, Silky Touch	314	-30	1.442
TEMEST ALB	C12-15 Alkyl Benzoate	High	High	Dry Emollient, Excellent UV Solubilisation	290	4	1.483
TEMEST TEC	Triethyl Citrate	High	High	Dry Emollient, Excellent for Deo Formulation	276	-55	1.442
TEMEST CTE	Cetearyl Ethylhexanoate	Medium	Medium	Non-Greasy, Light Skin Feeling	388	-4	1.445
TEMEST CTN	Cetearyl Isononanoate	Medium	Medium	Dry Skin Feeling, Non-Tacky	390	-1	1.449
TEMEST COT	Cetyl Caprylate	Medium	Medium	Moisturizing Properties	368	-2	1.45
TEMEST CTP	Cetyl Palmitate	Medium	Medium	Moisturizing Properties	536	54	1.457
TEMEST IPP	Isopropyl Palmitate	Medium	High	High Spreading and Lubrication	298	13	1.436
TEMEST IPM	Isopropyl Myristate	Medium	High	High Spreading and Lubrication	270	-3	1.433
TEMEST IPMP	Isopropyl Myristate and Isopropyl Palmitate	Medium	High	High Spreading and Lubrication	270	-3	1.433
TEMEST DO	Decyl Oleate	Medium	Medium	Dry Emollient	422	5	1.46
TEMEST TMO	Triethylhexyl Trimellitate	n/a	n/a	Excellent for Makeup Formulation	574	-46	1.488
TEMEST TMID	Triisodecyl Trimellitate	n/a	n/a		630	-25	1.486

Consistency Agents *and* Thickeners

Consistency agents are substances that provide creams with density, increase stability and improve suspension of added ingredients. Thickeners enhance the consistency and viscosity of cosmetic products and also improve stability and performance on the skin. Therefore, selection of the correct thickener can impact desired performance. Ester-based thickeners may have emulsifying or gelling properties as well; due to their biocompatibility, they can also improve stability and performance on the skin.

Commercial Name	INCI	Melting Point	Hlb	Main Properties
ALCOLTEX 1498	Myristyl Alcohol	35-38°C		Used in emulsion to increase viscosity and impart a dry, non-greasy feeling
ALCOLTEX 1698 F&B	Cetyl Alcohol	47-50°C		Fatty alcohol; acts as consistency factor O/W co-emulsifier
ALCOLTEX 1618 F&B (30:70)	Cetearyl Alcohol	50-54°C		Fatty alcohol; acts as consistency factor O/W co-emulsifier
ALCOLTEX 1618 F&B (50:50)	Cetearyl Alcohol	48-53°C		Fatty alcohol; acts as consistency factor O/W co-emulsifier
ALCOLTEX 1618 F&B (70:30)	Cetearyl Alcohol	47-52°C		Fatty alcohol; acts as consistency factor O/W co-emulsifier
ALCOLTEX 1898 F&B	Stearyl Alcohol	56-60°C		Fatty alcohol; acts as consistency factor O/W co-emulsifier
TEMEST CTP	Cetyl Palmitate	54°C		Increases viscosity, imparts a dry feeling and results in dense white emulsion; used to build structure in cosmetic stick
TEMEST GMS	Glyceryl Stearate	57°C	3.4	Used in cosmetic O/W emulsion for viscosity adjustment; acts as a consistency agent
TEMEST GMS SE	Glyceryl Stearate and Sodium Stearate	57°C	3.4	Acts as an emulsifier
TEMEST EGMS	Glycol Distearate	62°C	1.5	Acts as a pearling agent



Polybutenes

Polybuten is a versatile cosmetic emollient ideal for a wide range of personal care products. It is available in low- and high-viscosity grades that are easily blended. Polybuten is ideal for use in color cosmetic and lip products to help provide skin with a soft feeling while adding waterproofing capability and moisturizing effects.

Polybuten is an effective waterproofing agent for sunscreen formulations. Skin texture improves significantly within minutes after application of formulations containing polybuten, showing a clear contrast and fine texture. With its long-lasting effects, it helps to retain skin moisture content and thus improve skin tone and texture.

As an affordable alternative to higher-priced esters, polybuten provides the soft feeling that today's cosmetic formulations demand.

Classification	Molecular Weight	Viscosity cSt @ 100°C	Color (APHA)	Water	Acid Value
PB 300	300	-	max 15	30 ppm	0.01
PB 400	400	10	max 15	30 ppm	0.01
PB 560	650	33	max 15	30 ppm	0.01
PB 680	680	80	max 15	30 ppm	0.01
PB 800	800	108	max 15	30 ppm	0.01
PB 950	950	220	max 15	30 ppm	0.01
PB 1300	1300	645	max 15	30 ppm	0.01
PB 1400	1400	810	max 15	30 ppm	0.01
PB 2000	2000	2600	max 15	30 ppm	0.01
PB 2200	2200	3200	max 15	30 ppm	0.01
PB 2400	2400	4700	max 15	30 ppm	0.01





Emulsifiers

Emulsifiers are the most common type of delivery system used in cosmetics. They enable a wide variety of ingredients to be delivered quickly to skin and hair.

Water plays two main roles in cosmetic formulation:

- Solvent and vehicle for hydro-soluble active ingredients
- Fresh feeling due to evaporation

The best-known cosmetic products are based on emulsion. In these emulsions, small droplets of oil are dispersed in water (O/W) or small droplets of water are dispersed in oil (W/O). Since oil and water are incompatible, emulsifiers are added to produce the small droplets and to prevent the oil and water phase from separating. Depending on the nature of the alcohol used in the esterification process, they may be predominantly hydrophobic or hydrophilic, and thus suitable as W/O or O/W, respectively. Non-ionic emulsifiers are not affected by water hardness or pH levels.

Hair *care*

Commercial Name	INCI	Applications
ETOMIX HCS	Cetearyl Alcohol, PEG-40 Hydrogenated Castor Oil, Behentrimonium Chloride, Stearalkonium Chloride	Conditioning base for hair care; ideal for balm and hair mask formulations
ETOWAX PO	Laureth-3 Phosphate, Cetearyl Alcohol, Laureth-3, Lauryl Mirystyl Alcohol	Effective emulsifier for peroxide emulsions; stable over a wide pH range
ETOWAX NBL35	Cetearyl Alcohol, Ceteareth-25, Laureth-3 Phosphate	Co-emulsifier and stabilizer for hair and body care
ETOWAX AB	Cetearyl Alcohol, Sodium Cetearyl Sulfate, Sodium Lauryl Sulfate	Emulsifier for hair balms and creams
ETOWAX AB/F	Cetearyl Alcohol, PEG-40 Castor Oil, Sodium Cetearyl Sulfate	Emulsifier for hair balms and creams
ETOWAX AB/W	Cetearyl Alcohol, Sodium Lauryl Sulfate	Emulsifier for hair balms and creams
ETOWAX AB/N	Cetearyl Alcohol, Sodium Cetearyl Sulfate	Emulsifier for hair balms and creams
ETOWAX NB	Cetearyl Alcohol, Ceteareth-20	Emulsifier for skin care and hair care
ETOWAX NB10	Cetearyl Alcohol, Ceteareth-25	Emulsifier for skin care and hair care
ETOWAX NB30	Cetearyl Alcohol, Ceteareth-30	Emulsifier for skin care and hair care

Skin *care*

Commercial Name	INCI	Applications
ETOWAX LC	Steareth-21, Steareth-2, PPG/PEG-4/14 Dimethicone	Emulsifier for liquid crystal emulsions
ETOWAX DC	Cetearyl Alcohol, Lanolin, PEG-8 Stearate, Ceteareth-25, Glyceryl Stearate	Emulsifier for acid and base emulsions; suitable over a wide pH range and at high level of salts, suitable for depilatory system

Our Specialties

Commercial Name	INCI	Applications
ETOWAX SP	Glyceryl Stearate, Ceteareth-20, Ceteareth-12, Cetearyl Alcohol, Cetyl Palmitate	Self emulsifier for O/W emulsions; stable over a wide pH range
ETOWAX EB	Cetearyl Alcohol, Ceteareth-25, Polysorbate 60, PEG-100 Stearate	Self emulsifier for O/W emulsions; stable over a wide pH range
ETOWAX LP15	C12-20 Acid, PEG-8 Ester	Non-ionic emulsifier for O/W emulsions
ETOWAX GMPG	Glyceryl Stearate, PEG-100 Stearate	Emulsifier for skin care; gives more consistency to the emulsions
ETOWAX CGP60	Cetearyl Alcohol, Glyceryl Stearate, PEG-100 Stearate	Self emulsifier for O/W emulsions; stable over a wide pH range
ETOWAX EB2	Cetearyl Alcohol, PEG-20 Stearate	Self emulsifier for O/W emulsions; stable over a wide pH range
TEMEST GMS	Glyceryl Stearate	Co-emulsifier and emollient
TEMEST GMS ST	Glyceryl Stearate, Sodium Stearate	Self emulsifier for skin and hair care



Surfactants

Temix Oleo offers surfactants from renewable sources and a wide range of traditional surfactants.

Commercial Name	INCI	Applications
Non Ionic Surfactant		
ETOMIX HC20	Ceteareth-20	Non-ionic surfactant with HLB 15,2
ETOMIX HC25	Ceteareth-25	Non-ionic surfactant with HLB 16,4
Anionic Surfactant		
TEMIXAN SERIE	Sodium Laureth Sulphate	Primary surfactant for personal care applications
TEMIXAL SERIE	Sodium Alkyl Sulphate	Primary surfactant for personal care applications
TEMIXAN A SERIE	Ammonium Laureth Sulphate	Primary surfactant for personal care applications
Amphoteric Surfactant		
BETAMIX C	Cocamidopropyl Betaine	Co-surfactant for personal care applications
AMITEX MEA	Cocamide MEA	Co-surfactant for personal care applications
AMITEX DEA	Cocamide DEA	Co-surfactant for personal care applications

We care





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