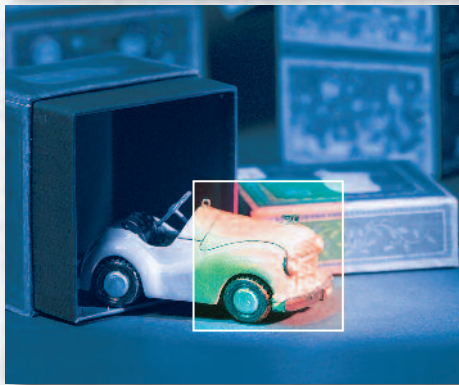
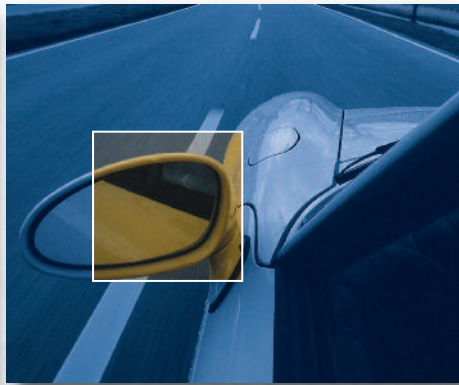


eChem Ltd



**FACI**®

**GROUP**





FACI.

Guaranteed Quality, Respect for the Environment



FACI Group is a global company which still retains its family owned status. This assures focus and commitment on cost competitiveness, prompt decisions, resiliency to economic cycles and allows flexibility in adapting a business model that follows the evolving market needs without compromising either quality or the fundamental values of sustainable business.



FACI Group has had deep roots in the bio based economy since its foundation. All FACI products and processes comply with the latest standards of sustainability and are sourced from renewable feedstock.



## Liquid Stearate Dispersions

	BASE	DRY CONTENT	pH	TYPICAL BULK DENSITY	SIEVE RESIDUE	Description
GRADE		%		g/l	% max	
eChem CD 211	Calcium	49.0-51.0	8.6-10.4	1000-1040	≤3.0	Typical Grade
eChem CD 215K	Calcium	49.0-51.0	8.6-10.4	1000-1040	≤ 3.0	Kosher/Halal grade for food applications
eChem CD 220	Calcium	49.0-51.0	8.6-10.4	1000-1040	≤ 3.0	Concrete admixtures and surface coatings
EC 994C	Zinc	39.0-41.0	6.7-8.5	1000-1040	≤ 0.13	Abrasive paper lubricant



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The continuous desire and propensity for finding the best balance between quality, competitiveness and sustainability is the driver of our daily activities and has existed in the company's culture since its foundation.

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### Liquid Esters

PRODUCT	COMPOSITION	SAP. VALUE	IODINE VALUE	WATER CONTENT	FREE ALCOHOL	COLOUR LOVIBOND 5" 1/4		Description
		mgKOH/g	gl./100g	%	%	R max	Y max	
DP110 F	2 - Ethylhexyl Cocoate	170-187	≤8	≤0.20	≤1.0	-	-	Pressroom cleaner, low hazard solvent
EC 1604	2 - Ethylhexyl Laurate	176-184	≤1	≤0.10	≤0.20	50 APHA max		Pressroom cleaner, low hazard solvent
EC 1043	2 - Ethylhexyl Palmitate	149-157	≤1	≤0.10	≤0.20	-	-	Lubricants, metalworking fluids
EC 847	n-Butyl Stearate	170-180	≤3	≤0.20	≤1.0	2.3	10	Plasticiser, PVC lubricants
eChem DOS	Di-Octyl Sebacate	260-270	-	≤0.20	≤0.20	50 APHA max		Plasticiser for coating resins, PVC
eChem DBS	Di-Butyl Sebacate	350-365	-	≤0.20	≤0.10	-	-	Plasticiser for coating resins, PVC
eChem ITDS	Isotridecyl Stearate	122-132	≤2	≤0.20	-	1.5	5	Lubricants, metalworking fluids
EC 1628	Benzoate Ester blend	322-341	-	-	-	-	-	Plasticiser for adhesives
EC 1197	DEG Polyester	-	-	≤10.0	-	-	-	Plasticiser for phenolic resins
EC 1414	PEG 200 Mono Laurate	142-152	-	-	-	-	-	Emulsifier, oil-in-water emulsions
EC 1557	PEG 400 Mono Laurate	92-102	-	≤0.50	-	-	-	Emulsifier, oil-in-water emulsions
eChem EE 344	PEG 300 Mono Oleate	96-103	-	≤0.50	-	-	-	Emulsifier, oil-in-water emulsions
eChem EE 364	PEG 400 Mono Oleate	79-89	-	≤0.50	-	-	-	Emulsifier, oil-in-water emulsions
eChem EE 368	PEG 400 Mono Cocoate	90.5-97.5	-	≤0.50	-	-	-	Emulsifier, oil-in-water emulsions
eChem EE 374	PEG 600 Mono Oleate	60-70	-	≤0.50	-	-	-	Emulsifier, oil-in-water emulsions
eChem EE 375	PEG 600 Di Oleate	-	-	≤0.50	-	-	-	Emulsifier, oil-in-water emulsions

\*Lovibond 1" cell



## PVC Lubricants

FUNCTION	Product	Chemical Composition	Lubricant Effect in PVC		Transparent Articles	Physical Form	Food contact approval by EU Law
			Internal	External			
LUBRICANTS	eSlip 2015	Solid Fatty Acids Ester of Polyol	■ ■ ■ ■ ■ ■ ■ ■ ■ ■		•	Solid	•
	eSlip 2017	Fatty Acids Ester of Polyol		■ ■ ■ ■ ■ ■ ■ ■ ■ ■	•	Solid	•
	eSlip 2021	Fatty Acids		■ ■ ■ ■ ■ ■ ■ ■ ■ ■		Solid	•
	eSlip 2022A	Paraffin, PE wax, ox PE wax		■ ■ ■ ■ ■ ■ ■ ■ ■ ■		Solid	•
	eSlip 2032	Linear Solid Fatty Acids Ester		■ ■ ■ ■ ■ ■ ■ ■ ■ ■		Solid	•
	eSlip 2040	Liquid Fatty Acids Esters	■ ■ ■ ■ ■ ■ ■ ■ ■ ■		•	Liquid	
	eSlip 2053	Fatty Alcohol		■ ■ ■ ■ ■ ■ ■ ■ ■ ■		Solid	•
	eSlip 2059	Fatty Acids Ester of Polyol from vegetable sources	■ ■ ■ ■ ■ ■ ■ ■ ■ ■		•	Solid	•
	eSlip 2065	Fatty Acids Ester of Polyol	■ ■ ■ ■ ■ ■ ■ ■ ■ ■		•	Solid	•
	eSlip 2070S	Complex Ester		■ ■ ■ ■ ■ ■ ■ ■ ■ ■	•	Solid	•
	eSlip 2078	Complex Ester containing metal soap		■ ■ ■ ■ ■ ■ ■ ■ ■ ■	•	Solid	•
	eSlip 2090	Fatty Acids Ester - PE wax blend		■ ■ ■ ■ ■ ■ ■ ■ ■ ■		Solid	•
	EC1414	Fatty Acids Polyglycol Ester		■ ■ ■ ■ ■ ■ ■ ■ ■ ■		Liquid	•
	EC1719	Fatty Acids Ester of Polyol and Fatty Alcohols	■ ■ ■ ■ ■ ■ ■ ■ ■ ■	■ ■ ■ ■ ■ ■ ■ ■ ■ ■		Solid	•
Antiblocking Agent	EC1361	Fatty Acids Secondary Amide				Solid	•



The keys of our success are continuous technical development, close attention to the quality standards of our chemicals and their production process, an open-minded approach to local and international markets, a close cooperation with our customers and adhering to a long-term business view which goes beyond a generation.





## Plasticisers

PRODUCT	COMPOSITION	ACID VALUE	WATER CONTENT	FREE ALCOHOL	IODINE VALUE	COLOUR LOVIBOND 5" 1/4		Description
		mg KOH/g	%	%	glz/100g	R max	Y max	
EC 847	n-Butyl Stearate	≤0.50	≤0.20	≤0.10	≤3	2.3	10	Plasticiser, PVC lubricant
eChem DOS	Di-Octyl Sebacate	≤0.50	≤0.20	≤0.20	-	50 APHA max		Plasticiser for coating resins
eChem DBS	Di-Butyl Sebacate	≤0.50	≤0.20	≤0.10	-	-	-	Plasticiser for coating resins
EC 1628	Benzoate Ester blend	≤4.50	-	-	-	-	-	Plasticiser for adhesives
EC 1197	DEG Polyester	10-20	≤10	-	-	-	-	Plasticiser for phenolic resins

\* Lovibond 1" cell



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FACI is a global Group of Companies, active in the production and marketing of bio based (oleo) chemical additives since 1943.

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## Defoamers

TYPE	PRODUCT	VISCOSITY 25 °C	DENSITY 20°C	WATER CONTENT	ACID VALUE
		mPa s	g/l	%	mgKOH/g
Mineral Oil Based	<b>eChem DF 1290</b>	400-1400	890-930	-	-
	<b>eChem DF 1314</b>	600-2000	920-960	≤0.50	-
	<b>eChem DF 1315</b>	200-800	885-925	≤0.50	-
	<b>eChem DF 1329</b>	-	870-910	≤0.20	2.0-7.0
	<b>eChem DF 160</b>	400-1400	890-930	≤0.20	≤5
White Oil Based	<b>eChem DF 1679</b>	1500-3000	880-920	-	-
	<b>eChem DF 810</b>	500-2000	850-900	-	-
Vegetable Oil Based	<b>eChem DF 174</b>	≤1500	900-1000	-	-
Oil free	<b>eChem DF 885</b>	116-132*	-	≤0.25	≤0.10
Water Based	<b>eChem DF 105</b>	100-300	920-1020	76.0-77.0	-
Silicone Oil Based	<b>eChem 8315</b>	1400-2000	-	-	-

\* measured at 40 °C in mm<sup>2</sup> s<sup>-1</sup>

TYPE	PRODUCT	ASH CONTENT 900 °C			
Powder Defoamers	<b>eChem DF 300P</b>	28.0-32.0			
	<b>eChem DF 340P</b>	31.0-35.0			
	<b>eChem DF 355P</b>	43.5-46.5			

Further information on defoamers are available in the FACI eChem coatings brochure.





## Wetting & Dispersing Agents

TYPE	PRODUCT	COMPOSITION	MOISTURE	VISCOSITY 20°C	ACTIVE MATTER	Description
	%		%	mPa s	%	
For Aqueous Systems	<b>eSperse 1331</b>	Phosphate ester	-	500-5000	-	Dispersant for inorganic pigments
	<b>eSperse 1346</b>	Polyoxyalkylene glycol ester	19-21	-	-	Dispersant/stabiliser for pigment pastes
	<b>eSperse 1389</b>	Sodium di-octyl sulphosuccinate	-	-	71-75	Wetting agent/emulsifier
	<b>eSperse 1459</b>	Polyoxyalkylene glycol ester	-	200	80	Wetting agent/dispersant
	<b>eSperse 1614</b>	Sodium co-polyacrylate salt	-	500-2500	38-42	Dispersant for inorganic pigments
	<b>Lomar D Powder</b>	Sodium neutralised naphthalene acid	≤6.5	-	-	Dispersant for pigments and fillers
	<b>eChem M500</b>	Polyphosphate / polyacrylate blend	65.5-66.6	5-25	-	Dispersant for inorganic pigments
For Non-Aqueous Systems	<b>eSperse 1556</b>	Phosphate ester	-	40-60	-	Dispersant for inorganic pigments
	<b>eSperse 188</b>	Polyoxyalkylene ester	-	-	100	Dispersant for pigments and fillers



## Coalescing Agents

		VISCOSITY 20°C	SPECIFIC GRAVITY 20°C	FREEZING POINT	FLASH POINT	Description
PRODUCT	Appearance 20°C	(mPa s)	%	(°C)	(°C)	
<b>EC 1628</b>	pale yellow liquid	90	1.14	Below 5 (supercools)	>190	





## Other products available from the FACI Group

With its seven manufacturing locations (four in Europe, two in the Far East and one in USA), FACI Group is a main supplier of non-toxic stearates, esters, oleochemicals and additives to a multitude of companies operating in different industries around the world. Our main chemistry has been traditionally focused on products derived from stearic acid, both of animal and vegetable origin. While this business continues to be the core activity of our Group, the acquisition of existing production units in Europe and the USA has considerably increased the portfolio of both our chemicals and our customers.

Our growth has always been driven by a forward-thinking attitude, backed up by a strong technical, marketing and development ethos which is associated with a close cooperation with our customers

Products availability:

**FACI S.p.A.** - Carasco - Italy

Fatty acid, glycerine and their derivatives, metallic soaps and their dispersions, esters, stearamides and epoxydized soya bean oil. Stearic acid and derivatives available on both animal and vegetable basis.

**FACI Metalest, S.L.U.** - Zaragoza - Spain

Fatty acid derivatives, metallic soaps, their dispersions and liquid fatty acids esters.

**FACI UK Chemicals Ltd** - Knowsley - UK

Fatty acid derivatives predominantly metallic soaps.

**FACI Asia Pacific Pte Ltd** - Jurong Island - Singapore

Fatty acid derivatives predominantly metallic soaps and their dispersions, fatty acids esters.

**FACI Chemicals (Zhangjiagang) Co., Ltd** - Jiangsu Province -PRC

Fatty acid derivatives predominantly metallic soaps and esters.

**eChem Ltd** - Leeds - UK

Fatty acid derivatives, metallic soaps dispersions and esters.

**American eChem, Inc.** - Lufkin TX - USA

Fatty acid derivatives predominantly metallic soaps dispersions.

## Applications



ABRASIVES	PAPER	CONSTRUCTION	FOOD AND FEED	RUBBER	CLEANERS	LOW HAZARD SOLVENT	PVC	LUBRICANTS	METALWORKING FLUIDS	PLASTICISER	COALESCING AGENT	ADHESIVES	EMULSIFIER	PIGMENT DISPERSANT	EMULSION PAINTS	BITUMEN EMULSIONS	POLYMER LATEX	INKS	F.D.A. APPROVED	WETTING AGENT
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### PRODUCT

eChem CD 211- Calcium Stearate dispersion																				
eChem CD 215K - Calcium Stearate dispersion																				
eChem CD 220- Calcium Stearate dispersion																				
EC 994 C - Zinc Stearate dispersion																				
DP 110 F (2-Ethylhexl Cocoate)																				
DP 110 U (2-Ethylhexl Cocoate)																				
EC 1604 (2-Ethylhexl Laurate)																				
EC 1043 (2-Ethylhexl Palmitate)																				
EC 1098 (2-Ethylhexl Stearate)																				
EC 1371 (2-Ethylhexl Oleate)																				
EC 1131 (n-butyl Laurate)																				
EC 847 (n-butyl Stearate)																				
EC 892 (n-butyl Oleate)																				
DP 120 (n-butyl Cocoate)																				
EC 1094 (isobutyl Stearate)																				
EC 1641 (isobutyl Oleate)																				
eChem DOS																				
eChem DBS																				
EC 1081 (TMP 1.4 C8/C10)																				
EC 1034 (TMP Tristearate)																				
eChem ITDS																				
EC 1249 (2-Ethylhexl Benzoate)																				
EC 1628 (Benzoate ester blend)																				
EC 1197 (DEG polyester)																				
PEG Ester range																				
eSlip lubricant range																				
EC 1719																				
eChem DF 1290																				
eChem DF 1314																				
eChem DF 1315																				
eChem DF 1329																				
eChem DF 160																				
eChem DOF 1679																				
eChem DF 810																				
eChem DF 174																				
eChem DF 885																				
eChem DF 105																				
eChem DF 8315																				
eChem DF 300P																				
eChem DF 340P																				
eChem DF 355P																				
eSperse range																				

The information contained in this publication is based on the present state of our knowledge and experience, given without obligation.

The product properties given in the publication are not specifications.

Our technical advice and recommendations, whether verbal, in writing, or by way of trials, are given for information purposes without commitment. The customer is strongly advised, due to the many outside influences which may affect the product use and application, to carry out his or her own testing and trials.

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- Production sites
- Commercial offices

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Texas

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FACI US DISTRIBUTION LLC  
Texas

**USA**

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Leeds

**UK**

FACI UK CHEMICALS Ltd  
Merseyside

**UK**

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Zaragoza

**Spain**

Paris

**France**

AMBROGIO PAGANI  
Bergamo

**Italy**

**Italy**

FACI S.p.A.  
Carasco - GE

**Italy**

FACI Corporate  
Carasco - GE

FACI ASIA PACIFIC Pte Ltd  
Singapore

**Singapore**

FACI CHEMICALS  
(ZHANGJIAGANG) Co., Ltd  
Jiangsu

**China**







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With seven fully owned manufacturing units:

- Carasco (Italy)
- Zaragoza (Spain)
- Knowsley (UK)
- Leeds (UK)
- Jurong Island (Singapore)
- Zhangjiagang (China)
- Lufkin (USA)

The FACI Group today is a leading supplier of

- Non toxic metallic soaps and dispersions
- Fatty esters and a wide range of oleochemicals derived additives

To a large variety of industries **WORLD WIDE**

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