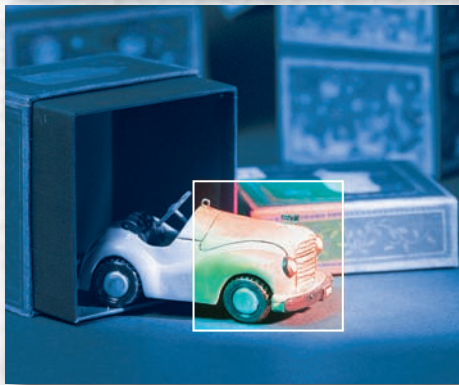


FACI USA, LLC



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. We have 4 “sister plants” (out of the seven) that make EXACTLY THE SAME PRODUCTS.

We are the only metallic stearate producer that has this global capability and can count on multiproduction platforms.

Our production units in Italy, Singapore, China and USA can count on

- Same Raw Materials
- Same Equipment
- Same processes
- Same quality protocols and regulatory standards
- Same product designations
- Tallow and Vegetable compositions available
- Four warehouses in USA



Calcium Stearate

GRADE	MELTING POINT	OXIDE	FREE FATTY ACIDS	MOISTURE	SOLUBLE SALTS	TYPICAL BULK DENSITY	SIEVE RESIDUE % MAX		Description
	°C	%	% max	% max	% max	g/l	200 mesh	325 mesh	
S	150-160	9.2-10	1	3	0.1	200	1	-	Typical particle size
S HD (HighDensity)	150-160	9.2-10	1	3	0.1	400	-	-	High density grade
SW	150-160	9.2-10	1	3	0.1	200	-	1	Finer particle size
BS	165-175	10-11	0.5	3	0.1	200	1	-	Typical particle size, Higher oxide
DW	145-155	9.2-10.0	0.5	3	0.1	190	-	0.1	Finer particle size, Better thermal stability
DW HD (High Density)	145-155	9.2-10.0	0.5	3	0.1	400	-	-	High density grade
WLC	145-155	9.2-9.6	0.5	3	0.1	190	-	0.1	Finer particle size, Superior thermal stability
SP	145-160	9.2-10.0	1	3	0.1	500	non dusting microbeads		Non dusting
PLC	145-160	9.2-9.7	0.5	3	0.1	500	non dusting microbeads		Non dusting, Better thermal stability

Zinc Stearate

GRADE	MELTING POINT	OXIDE	FREE FATTY ACIDS	MOISTURE	SOLUBLE SALTS	TYPICAL BULK DENSITY	SIEVE RESIDUE % MAX		Description
	°C	%	% max	% max	% max	g/l	200 mesh	325 mesh	
N	118-122	13.2-13.7	1	0.5	0.5	140	1	-	Precipitated grade
TM	118-122	13.5-14.2	1	1	0.1	300	0.5	-	Typical particle size
TW	118-122	13.5-14.2	1	1	0.1	300	-	1.0	Finer particle size
TB	118-122	14-17	1	1	0.1	300	0.5	-	Typical particle size, High oxide
TMD	118-122	13.5-14.2	1	1	0.1	300	0.5	-	Typical particle size
SP	118-122	12.5-14.2	1	1	0.1	500	non dusting microbeads		Non dusting

Magnesium Stearate

GRADE	MELTING POINT	OXIDE	FREE FATTY ACIDS	MOISTURE	SOLUBLE SALTS	TYPICAL BULK DENSITY	SIEVE RESIDUE % MAX	Description	
	°C	%	% max	% max	% max	g/l	200 mesh		
S	130-145	7.2-8.0	1.5	4	0.2	160	2	Typical particle size	
SP	140-160	7.2-8.0	1.5	4	0.2	500	non dusting microbeads		Non dusting grade

All FACI products are REACH compliant

All grades are also available with a vegetable base

“

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.

”



Liquid Stearate Dispersions

	BASE	DRY CONTENT	pH	VISCOSITY 20 °C	PARTICLE SIZE	Description
GRADE		%		cPs	µm	
CD 205	Calcium	49.0-51.0	10.0-12.0	≤500	5.0-8.0	General purpose applications
CD 220	Calcium	49.0-51.0	11.0-13.0	≤500	4.0-7.0	General purpose applications
CD 211	Calcium	49.0-51.0	-	-	4.0-7.0	Synthetic polymers, elastomers and paper coatings
EC 1153 A	Calcium	49.0-51.0	-	-	9.0-11.0	Synthetic polymer and elastomers
EC 1693	Calcium	29.0-31.0	-	30 max	3.0-6.0	Synthetic polymer and elastomers
EC 1572	Calcium	24.0-26.0	10.5-13.5	300 max	4.0-8.0	Synthetic polymer and elastomers, food contact approved
ZD 605	Zinc	39.0-41.0	7.0-8.5	130 max	-	

All grades are also available with a vegetable base



Other products available from the FACI Group

Defoamers

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

* measured at 40 °C in mm² s⁻¹

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

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

Polyethylene Glycol Esters

GRADE	COMPOSITION	SAPONIFICATION VALUE mgKOH/g	WATER CONTENT %	Description
EC 1414	PEG 200 Mono Laurate	142-152	-	Emulifier, oil-in-water emulsions
EC 1557	PEG 400 Mono Laurate	92-102	≤0.50	Emulifier, oil-in-water emulsions
eChem EE 344	PEG 300 Mono Oleate	96-103	≤0.50	Emulifier, oil-in-water emulsions
eChem EE 364	PEG 400 Mono Oleate	79-89	≤0.50	Emulifier, oil-in-water emulsions
eChem EE 368	PEG 400 Mono Cocoate	90.5-97.5	≤0.50	Emulifier, oil-in-water emulsions
eChem EE 374	PEG 600 Mono Oleate	60-70	≤0.50	Emulifier, oil-in-water emulsions
eChem EE 375	PEG 600 Di Oleate	-	≤0.50	Emulifier, oil-in-water emulsions

All grades are also available with a vegetable base



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.



Aluminum Stearates

	ASH	MELTING POINT	FREE FATTY ACIDS	MOISTURE	SIEVE RESIDUE %	TYPICAL BULK DENSITY	GEL VISCOSITY	VEGETAL ORIGIN	Description
GRADE	%	°C	%	%	100 mesh	g/l	cPs		
M-132 HG	10.5-12.5	160-170	≤5.8	≤1	≤10	250-300	≥24.000	-	High gel viscosity (DI)
M-132 HGV	10.5-12.5	160-170	≤5.8	≤1	≤10	250-300	≥24.000	•	High gel viscosity (DI)
M-132 DF	9.0-11.0	150-160	3.0-9.0	≤1.0	≤10	300-450	-	-	Tallow based (DI)
M-132 DFV	9.0-11.0	150-160	3.0-9.0	≤1.0	≤10	300-450	-	•	Vegetal based (DI)
M-132	10.8-13.8	150-170	≤5.8	≤2	≤10	250-300	-	-	Standard grade (DI)
M-132 V	10.8-13.8	150-170	≤5.8	≤2	≤10	250-300	-	•	Standard grade (DI)
M-132 AKCT	10.0-11.0	165-175	3-5	≤2	-	180-280	-	-	Tallow based, low ash content (DI)
M-132 AKC	9.7-11.2	-	≤5.0	≤1.5	≤10	250-300	-	•	Vegetal based, low ash content (DI)
M-136	8.0-10.0	120-140	10-15	≤2	≤5	280-320	-	-	Tallow based, standard grade (TRI)
M-136 TH	7.0-9.0	125-140	12.0-16.0	≤1.0	≤6	320-480	-	-	Tallow based (TRI)
M-136 V	8.0-10.0	120-140	10-15	≤2	≤5	280-320	-	•	Veg. based, standard grade (TRI)
M-136 BF	7.5-9.0	-	16.0-20.0	≤1.5	-	-	-	•	Vegetal based (TRI)
M-136 BFT	7.5-9.0	-	16.0-20.0	≤2.0	-	-	-	-	Tallow based (TRI)

* Sieve residue at 60 mesh

Calcium Stearate

	MELTING POINT	OXIDE	FREE FATTY ACIDS	MOISTURE	SOLUBLE SALTS	TYPICAL BULK DENSITY	SIEVE RESIDUE % MAX		Description
GRADE	°C	%	% max	% max	% max	g/l	200 mesh	325 mesh	
EPH	145-160	9.0-9.9	-	4	0.1	200	1	-	Pharma grade

Magnesium Stearate

	MELTING POINT	OXIDE	FREE FATTY ACIDS	MOISTURE	SOLUBLE SALTS	TYPICAL BULK DENSITY	SIEVE RESIDUE % MAX		Description
GRADE	°C	%	% max	% max	% max	g/l	200 mesh		
EPH	130-145	6.65-8.3	-	4	0.1	160	1		Pharma grade

Zinc Stearate

	MELTING POINT	OXIDE	FREE FATTY ACIDS	MOISTURE	SOLUBLE SALTS	TYPICAL BULK DENSITY	SIEVE RESIDUE % MAX		Description
GRADE	°C	%	% max	% max	% max	g/l	200 mesh	325 mesh	
EPH	118-122	12.5-14.0	-	1	0.1	300	0.5	-	Pharma grade

All grades are also available with a vegetable base

Sodium Stearate

	MELTING POINT	SULPHATED ASHES	FREE FATTY ACIDS	MOISTURE	TYPICAL BULK DENSITY	SIEVE RESIDUE % MAX	Description
GRADE	°C	%	%	% max	g/l	100 mesh	
APS	210-220	-	2 max	2	200-260	0.5	
APT	210-220	-	2 max	2	200-320	0.5	
APH	-	-	-	2	200-320	0.5	
E	210-220	-	1.5 max	2	200-320	1	

Laurate Others

	MELTING POINT	OXIDE	FREE FATTY ACIDS	MOISTURE	METAL CONTENT	ASH	TYPICAL BULK DENSITY	SIEVE RESIDUE % MAX		Description
GRADE	°C	%	% max	% max	%	%	g/l	200 mesh	325 mesh	
Calcium Laurate	160-170	12.7-13.2	1.5	3	-	-	-	1	-	Typical particle size
Zinc Laurate	125-135	-	2	1	13.5-15.2	17-19	140-250	-	1	Finer particle size
Zinc Laurate SP	125-135	-	2	1	13.5-15.2	17-19	450-600	non dusting microbeads		Non dusting

All grades are also available with a vegetable base







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



Lubricants / Additives - General Table

FUNCTION	Product*	Chemical Composition	Lubricant Effect in PVC						Transparent Articles	Physical Form	Melting Range (°C)	
			Internal			External						
LUBRICANTS - ANTISTATICS	L100	Fatty Acids Ester of Polyol	■	■	■	■	■	■	●	Solid	62-70	
	L102	Fatty Acids Ester of Polyol from vegetable sources (with tallow composition)	■	■	■	■	■	■	●	Solid	67.5-70.5	
	L107	Fatty Acids Ester of Polyol from vegetable sources	■	■	■	■	■	■	●	Solid	67-72	
	L201	Fatty Acids Ester of Polyol from vegetable sources				■	■	■	■	■	Solid	54-64
	L329	Fatty Acids Ester of Polyol from vegetable sources			■	■	■	■	■	●	Solid	46-52
	L349	Fatty Acids Ester of Polyol from vegetable sources									Solid	58-65
	L347	Fatty Acids Ester of Polyol from vegetable sources									Solid	62-68
	L348	Fatty Acids Ester of Polyol from vegetable sources									Solid	≥ 60
	L521	Linear Solid Fatty Acids Ester from vegetable sources				■	■	■	■		Solid	51-57
	L522	Linear Solid Fatty Acids Ester from vegetable sources (with tallow composition)				■	■	■	■		Solid	51-60
	L611	Fatty Acids Ester of Polyol from vegetable sources		■	■	■	■	■	■	●	Solid	55-60
	L612	Fatty Acids Ester of Polyol from vegetable sources (with tallow composition)		■	■	■	■	■	■	●	Solid	57-62
	L614	Fatty Acids Ester of Polyol from vegetable sources		■	■	■	■	■	■	●	Liquid	-
	L626	Fatty Acids Ester of Polyol from vegetable sources		■	■	■	■	■	■	●	Liquid	-
	L651	Fatty Acids Ester of Polyol from vegetable sources		■	■	■	■	■	■	●	Solid	56-60
	L711	Fatty Acids Ester of Polyol from vegetable sources with strong antistatic effect		■	■	■	■	■	■	●	Solid	65-70
	L751	Fatty Acids Ester of Polyol from vegetable sources		■	■	■	■	■	■	●	Solid	65-70

All grades are also available with a vegetable base

* Other products are available, for the full FACI L product list please refer to a FACI representative or to L series brochures

Lubricants and Additives for Plastic Applications

FUNCTION	Product*	Chemical Composition	P-PVC	U-PVC	PE	PP	PS	PC	ABS	PC/ABS	PET/PBT	PA	PMMA
LUBRICANTS - ANTI-STATICS	L100	Fatty Acids Ester of Polyol		■									
	L102	Fatty Acids Ester of Polyol from vegetable sources (with tallow composition)		■									
	L107	Fatty Acids Ester of Polyol from vegetable sources		■									
	L201	Fatty Acids Ester of Polyol from vegetable sources		■				■	■	■			
	L329	Fatty Acids Ester of Polyol from vegetable sources		■							■		
	L349	Fatty Acids Ester of Polyol from vegetable sources		■					■	■		■	
	L347	Fatty Acids Ester of Polyol from vegetable sources		■					■	■	■	■	
	L348	Fatty Acids Ester of Polyol from vegetable sources		■					■	■	■	■	
	L521	Linear Solid Fatty Acids Ester from vegetable sources		■		■			■	■			
	L522	Linear Solid Fatty Acids Ester from vegetable sources (with tallow composition)		■		■			■	■			
	L611	Fatty Acids Ester of Polyol from vegetable sources		■	■				■	■			
	L612	Fatty Acids Ester of Polyol from vegetable sources (with tallow composition)		■	■				■	■			
	L614	Fatty Acids Ester of Polyol from vegetable sources		■				■					
	L626	Fatty Acids Ester of Polyol from vegetable sources		■	■				■	■			
	L651	Fatty Acids Ester of Polyol from vegetable sources		■	■	■	■						
	L711	Fatty Acids Ester of Polyol from vegetable sources with strong antistatic effect		■	■	■	■						
L751	Fatty Acids Ester of Polyol from vegetable sources		■	■									

All grades are also available with a vegetable base

Personal Care: oil in water emulsifier, pearling agent in shampoos

GRADE	MELTING POINT	IODINE VALUE	ACID VALUE	SAP. VALUE	HYDROXYL VALUE	COLOUR LOVIBOND 5" 1/4		Description
	°C	gl ₂ /100g max	mgKOH/g max	mgKOH/g	mgKOH/g	R max	Y max	
EGDS AP	60-70	0.75	3	195-215	≤15	3	20	
EGDS AT	-	0.75	3	190-200	≤10	3	20	Tallow like
EGDP	67-72	1	1	-	≤10	5	20	

Product available liquid in tanks or in non dusting form: microbeads and pastilles



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 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.

FACI UK Chemicals Ltd - Knowsley - UK

Fatty acid derivatives predominantly metallic soaps.

eChem Ltd - Leeds - UK

Fatty acid derivatives, metallic soaps dispersions and esters.

FACI USA INDUSTRIAL, INC- Lufkin TX - USA

Fatty acid derivatives, metallic soaps and their dispersions.

FACI USA, LLC- Lufkin TX - USA

Fatty acid derivatives, metallic soaps and their dispersions.

Applications



PRODUCT	PVC	STABILISERS	POLYOLEFINS PE	POLYOLEFINS PP-LLDPE	POLYCARBONATE	ABS	PC-ABS BLEND	POLYSTYRENE	POLYAMIDE	POLYESTERS SMC-BMC	OTHER PLASTICS	RUBBER	PAPER	ABRASIVES	BUILDING	COSMETIC	PHARMACEUTICAL	FOOD AND FEED	ADHESIVES	MINERAL COATING	PAINTS	FIRE-FIGHTING	METALLURGY	DETERGENT	LUBRICANTS
Stearic Acid																									
Oleic Acid																									
Glycerine																									
Aluminum Stearate																									
Calcium Stearate DW-DW HD-WLC																									
Calcium Stearate S - S HD																									
Calcium Stearate SP																									
Magnesium Stearate																									
Sodium Stearate																									
Zinc Stearate TM-TMD-TW-EPH																									
Zinc Stearate SP																									
Zinc Stearate N																									
Fluocast																									
Fluozinc																									
Fluowax																									
Sodium Oleate																									
Canastol																									
Edistol																									
Lithium Stearate																									
Potassium Stearate																									
Potassium Myristate																									
Magnesium Myristate																									
Calcium Laurate Zinc Laurate																									
Calcium 12 H St. - Zinc 12 H Stearate																									
Glycerilmonostearate (GMS)																									
GMS/SE																									
Glycerildistearate (GDS)																									
Glycerilmonooleate (GMO)																									
Pentaerythritol Esters																									
Ethyleneglycoldistearate (EGDS)																									
Ethyleneglycolmonostearate (EGMS)																									
Cetyl Stearate																									
EBS SP-N																									
EBS W-WH																									
Epoxol																									

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.

- Corporate Headquarters
- Production sites
- Commercial offices

FACI USA INDUSTRIAL, INC.
Texas

USA

FACI USA, LLC
Texas

USA

eChem Ltd
Leeds

UK

FACI UK CHEMICALS Ltd
Merseyside

UK

FACI METALEST, S.L.U.
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





“

With seven fully owned manufacturing units:

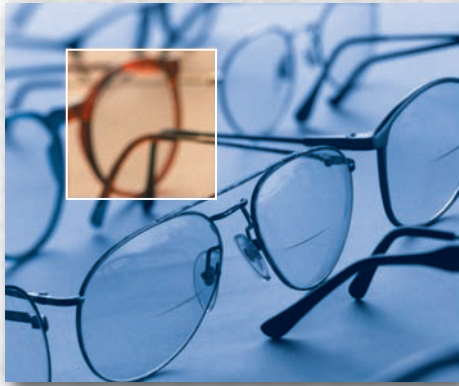
- Carasco (Italy)
- Zaragoza (Spain)
- Knowsley (UK)
- Leeds (UK)
- Jurong Island (Singapore)
- Zhangjiagang (China)
- Lufkin (USA)

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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