



# OleoBasics

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**OLEOCHEMICALS FOR BASIC  
TO NICHE APPLICATIONS**

# YOUR SOLUTIONS PARTNER IN NATURAL-BASED CHEMICALS

Emery Oleochemicals is known for world-leading, in-depth technical expertise and the production of high-quality specialty chemicals. We provide our customers with best-in-class sustainable solutions recognized for their ability to deliver outstanding technical performance.

## LEADING THE INDUSTRY WITH NATURAL-BASED PRODUCTS

Founded in 1840, Emery Oleochemicals has a rich history developing and manufacturing natural-based chemicals made predominantly from natural oils and fats. Emery Oleochemicals' philosophy of 'Creating Value' for our customers is evident through our wide-ranging product portfolio that caters to the diverse and unique needs of an evolving marketplace.

## RECOGNIZED BRANDS: EMERY® AND EMERSOL®

Our OleoBasics products are made entirely from natural oils and fats derived from renewable raw materials. Through our EMERY® and EMERSOL® product portfolios, we produce an extensive range of stearic, oleic, tallow and vegetable fatty acids, refined glycerin and other natural oils and fats that form the basic building blocks of the chemical industry and are used in automotive, rubber, paper and lubricant applications, among others.

*To ensure that our customers receive a consistent and high-quality product, Emery Oleochemicals conforms to the international standards of ISO 9001 and ISO 14001 governing quality and environmental protection. Emery Oleochemicals' OleoBasics products are GMO-free.*

For more information about  
OleoBasics solutions,  
please visit:  
[www.emeryoleo.com/oleobasics](http://www.emeryoleo.com/oleobasics)





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EMERSOL® / EMERY®

# STEARIC ACID

EMERSOL® and EMERY® stearic acids are mainly used as lubricants, softening and release agents as well as in the production of soaps, cleaning chemicals and chemical intermediates. These natural-based solutions are manufactured using our extensive knowledge accumulated over our company's 180 year history of developing sustainable oleochemicals for a wide range of industries.

PRODUCT	DESCRIPTION	ACID VALUE mgKOH/g	IODINE VALUE %	TITER °C	COLOR % TRANS. NM.		CHAIN DISTRIBUTION %					
					440	550	C 12	C14	C16	C18	C18'	>C18
<b>EMERSOL® 120</b>	Double-Pressed Tallow Stearic Acid	205-210	5-7	53.7-54.7	88 min	99 min	≤ 0.5	2.6-3	38-44	43-48	4-6	
<b>EMERSOL® 132 NF</b>	Triple-Pressed Tallow Stearic Acid	205-211	0.5 max	54.5-55.5	93 min			2.2-3	≥ 40	40-60	≤ 0.3	≤ 0.7
<b>EMERY® 400</b>	Rubber Grade Tallow Stearic Acid	193-212	10 max	52-65	35 min	40 min	≤ 0.1	2.5-3.5	27-38	54-64	≤ 5	≤ 1
<b>EMERY® 405</b>	Hydrogenated Tallow Stearic Acid	195-209	6 max	57-100		40 min		≤ 2	≤ 30	≤ 60	≤ 4	
<b>EMERY® 410</b>	Hydrogenated Tallow Stearic Acid	195-209	12 max	56.1-63	40 min	86 min		2	26	64	3.5	
<b>EMERY® 420</b>	Hydrogenated Tallow Stearic Acid	200-207	1 max	57.2-63	85 min	98 min	≤ 0.2	2.8-3.5	26-33	58-65	≤ 1	≤ 1.2
<b>EMERY® 422</b>	Hydrogenated Tallow Stearic Acid	203-209	1 max	55.8-60	90 min	99 min	≤ 0.1	2.7-3	36-40	52-57		≤ 1



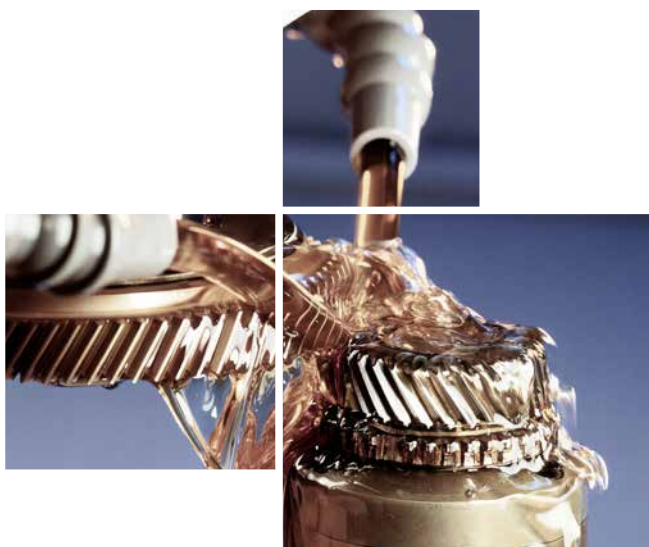


EMERSOL®

## OLEIC ACID

Applications for oleic acid include, but are not limited to, industrial lubricants, liquid soaps and metalworking fluids. EMERSOL® oleic acids are also used in the production of esters, surfactants, amines and alkoxylates.

PRODUCT	DESCRIPTION	ACID VALUE mgKOH/g	IODINE VALUE %	TITER °C	COLOR % TRANS. NM.		CHAIN DISTRIBUTION %							
					440	550	C 12	C 14	C 16	C 18	C 18'	C 18''	C 18'''	>C 18
<b>EMERSOL® 213 NF</b>	Tallow Oleic Acid	199-204	88-95	5 max	56 min	86 min	≤ 0.3	2.5-3.6	4.2-5.2	≤ 1.3	68-72	6-11	≤ 0.5	≤ 1.2
<b>EMERSOL® 221 NF</b>	Tallow Oleic Acid	199-204	88-95	5 max	77 min	98 min	≤ 0.2	2.5-3.4	4.2-5.4	≤ 1.2	68-73	7-10	≤ 0.7	≤ 1
<b>EMERSOL® 233 LL</b>	Low Linoleic Content Tallow Oleic Acid	200-204	85-90	6 max	78 min	97 min	≤ 0.2	3.5-4.3	3.7-4.0	≤ 1	71-74	3.5-5	≤ 0.2	≤ 1





EMERY®

# TALLOW FATTY ACID

EMERY® tallow fatty acids are used in a variety of industries such as oilfield chemicals, alkyd resins, industrial and institutional cleaners, construction chemicals, metallic soaps, metalworking fluids, textile chemicals, buffing compounds, and rubber chemicals.



PRODUCT	DESCRIPTION	ACID VALUE mgKOH/g	IODINE VALUE %	TITER °C	COLOR % TRANS. NM.		CHAIN DISTRIBUTION %							
					440	550	C12	C14	C16	C18	C18'	C18''	C18'''	>C18
<b>EMERY® 401</b>	Partially Hydrogenated Tallow Fatty Acid	200-208	37-45	44-50	80 min	93 min	≤ 0.2	2.6-3.6	23-26	23-28	34-37	≤ 0.5	≤ 0.5	≤ 0.2
<b>EMERY® 531</b>	Tallow Fatty Acid	200-208	45-70	36-44	19 min	81 min	≤ 0.2	2.5-3.0	20-27	17-23	33-43	2-4	≤ 0.2	≤ 0.2
<b>EMERY® 534</b>	Tallow Fatty Acid	202-208	45-60	40-44	3 G* max		≤ 0.2	2.5-3.5	20-27	16-21	40-46	2-6	≤ 0.2	≤ 0.5
<b>EMERY® 536</b>	Tallow Fatty Acid	204-208	52 max	40.5 min	80 min	95 min	≤ 0.2	2.0-4.0	23-28	16-23	32-42	2-5	≤ 0.2	≤ 0.2

\* Color Gardner





Vegetable fatty acid is a broad term for derivatives from plant and vegetable sources. Emery Oleochemicals' OleoBasics business unit offers vegetable-based fatty acids including vegetable stearic acid. EMERY® vegetable fatty acids are used in a variety of personal care products and industrial applications.

PRODUCT	DESCRIPTION	ACID VALUE mgKOH/g	IODINE VALUE %	TITER °C	COLOR % TRANS. NM. min		CHAIN DISTRIBUTION %										
					440	550	C6	C8	C10	C12	C14	C16	C18	C18'	C18''	C18'''	>C18
<b>EMERY® 7130</b>	Vegetable Stearic Acid	205-211	0-0.5	54.5-57	50	95						51-57	41-47				
<b>EMERY® 7132</b>	Vegetable Stearic Acid	203-210	1.0	54-60	90	98						40-49	51-60				
<b>EMERY® 622</b>	Vegetable Fatty Acid	268-276	10.0 max	22-26	65	96	≤ 1	2-10	4-8	45-53	17-21	7-13	≤ 3	3-9	≤ 2		≤ 0.5
<b>EMERY® 626</b>	Hydrogenated Fatty Acid	268-276	1.0 max	23-26	85		≤ 1	2-10	4-8	45-55	17-21	7-13	7-14				≤ 0.5
<b>EMERY® 610</b>	Soybean Oil Fatty Acid	197-205	125-145	17-26	60	90						16	4	26	48	5	
<b>EMERY® 790</b>	Canola Oil Fatty Acid	196-204	105-126	15 ax	65	94						3.5	2	64	18	9	
<b>EMERY® 792</b>	Vegetable Oil Fatty Acid	196-204	105-126	17-26	50	95						6.2	2.4	54.4	26.4	7.8	





EMERY® / EMERION®

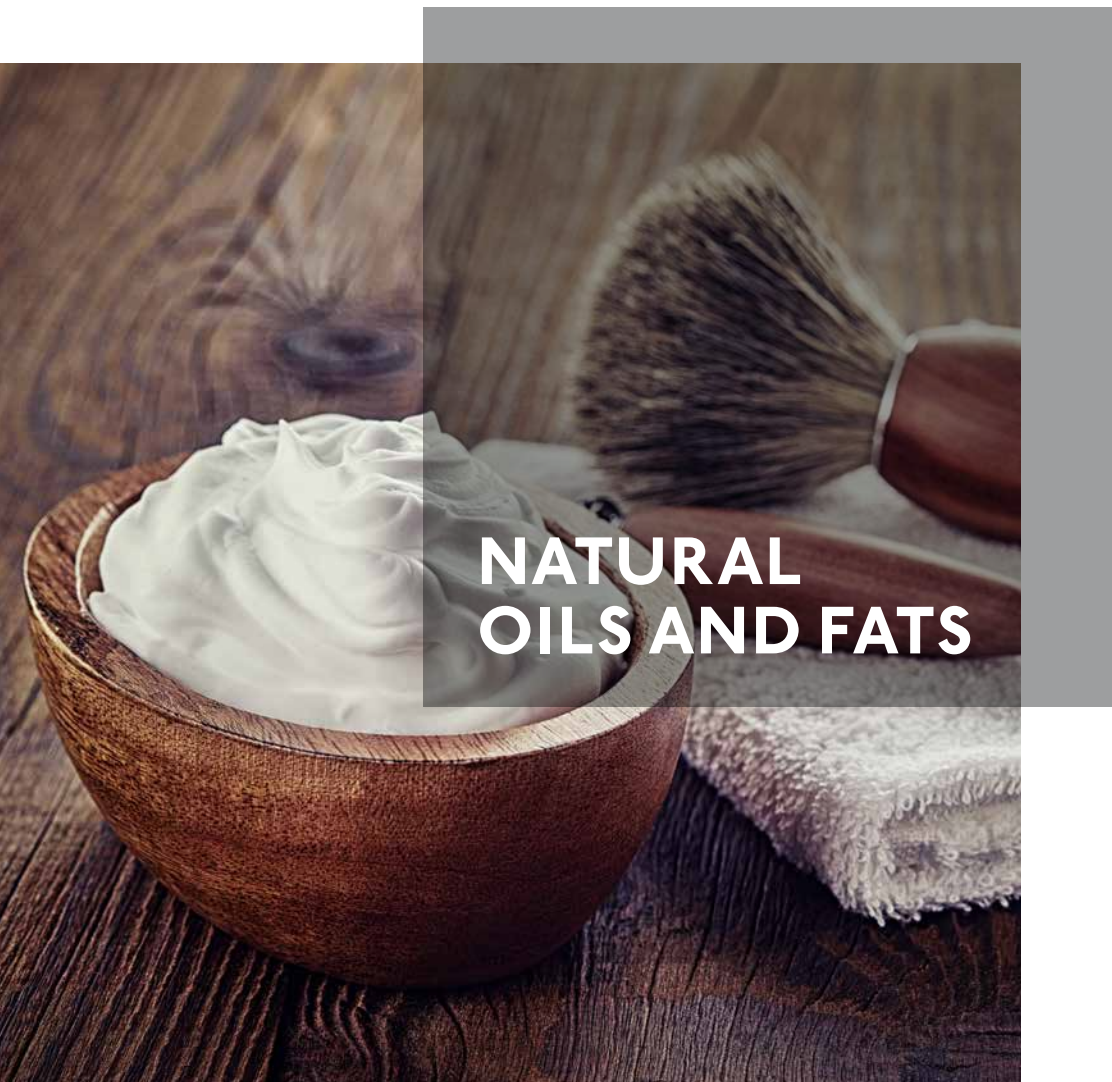
## REFINED GLYCERIN

We manufacture glycerin by splitting natural oils and fats. As a result of our extensive industry expertise and continual innovation, our glycerin products are available in a wide variety of technical grades, from 86% up to 99.7%. They are used in applications such as:

- Cellulose Films
- Deicing & Antifreeze
- Emulsifiers
- Ester Intermediates
- Humectants
- Moisturizers
- Nitration
- Plasticizers
- Polyols / Polyurethanes
- Resins
- Solubilizers

REFINED GLYCERIN	SPECIFICATIONS		
	USP GRADE		EP / BP GRADE
	96 % / EMERY® 912	99,7 % / EMERY® 916	99,7 % / EMERION® 3916
<b>Appearance</b>	Clear colorless liquid	Clear colorless liquid	Clear colorless liquid
<b>Identification A</b>	Pass	Pass	Pass
<b>Identification B</b>	Pass	Pass	Pass
<b>Identification C</b>	Pass	Pass	Pass
<b>Specific Gravity 25/25 °C</b>	1.2517 min	1.2612 min	1.2612 min
<b>Residue on Ignition (ppm)</b>	100 max	100 max	100 max
<b>Chlorides (ppm Cl)</b>	10 max	10 max	10 max
<b>Sulfate (ppm)</b>	20 max	20 max	20 max
<b>Heavy Metals (ppm P<sub>v</sub>)</b>	5 max	5 max	5 max
<b>Chlorinated Compounds (ppm Cl)</b>	30 max	30 max	30 max
<b>Fatty Acids &amp; Esters (ml 0.5N NaOH/50g)</b>	1 max	1 max	1 max
<b>Diethylene glycol/related compounds-individual impurity %*</b>	Pass	Pass	Pass
<b>Ethylene glycol/related compounds-total impurity %*</b>	Pass	Pass	Pass
<b>Assay (%)</b>	99-101	99-101	99-101
<b>Water(%)</b>	4.0 max	0.3 max	0.3 max
<b>Glycerin Content (%)</b>	96 min	99.7 min	99.7 min
<b>Odor</b>	Odorless	Odorless	Odorless
<b>Color (APHA)</b>	17.5 max	10 max	10 max





## NATURAL OILS AND FATS

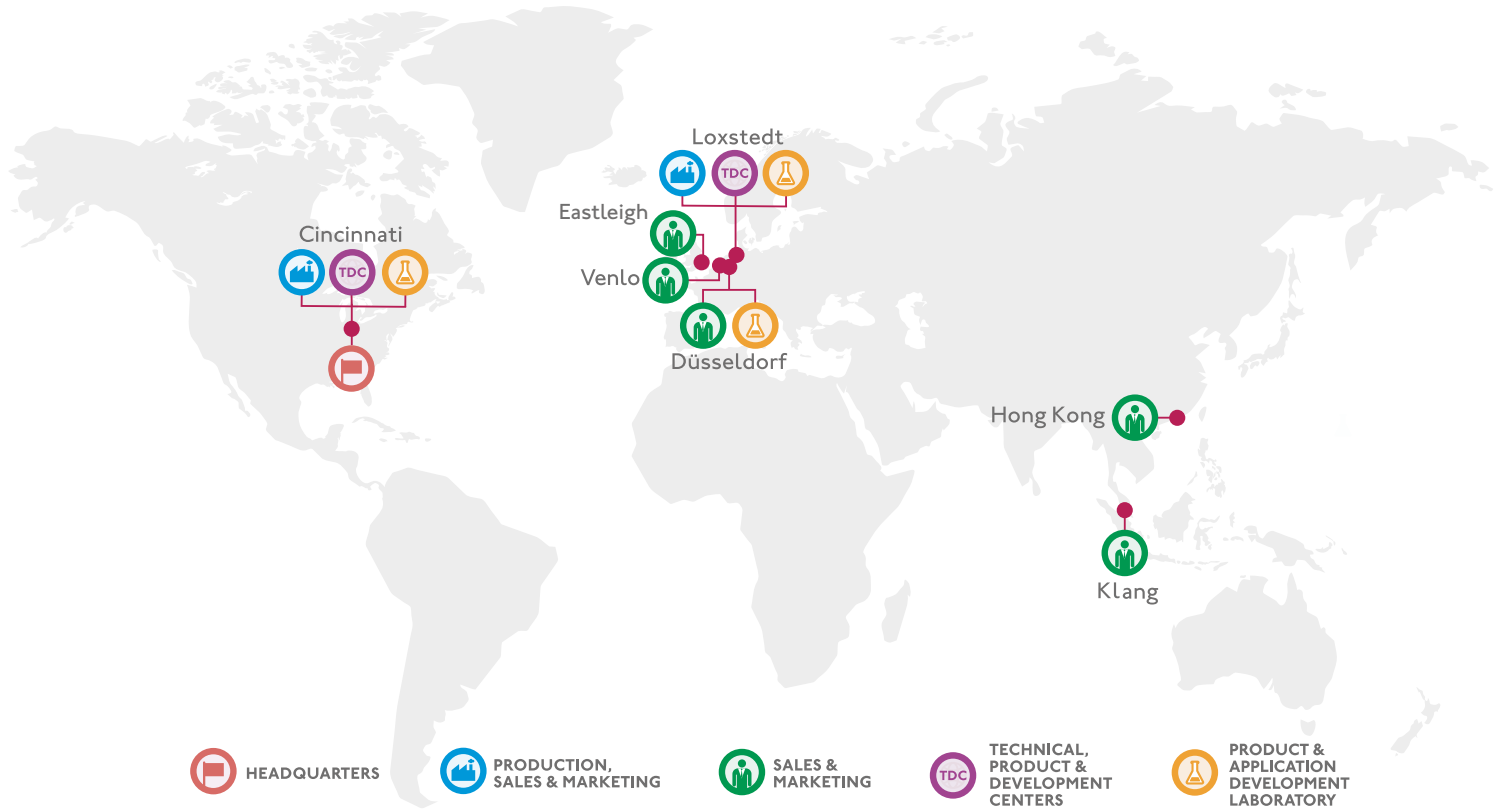
Inspired by nature and taking advantage of the abundance of natural oils and fats, Emery Oleochemicals developed natural-based solutions by extensively exploiting the knowledge on processing techniques to derive at a wide spectrum of quality oleochemicals.

C-CHAIN	FATTY ACID	CHEMICAL DESIGNATION	FORMULA	PALM KERNEL OIL	COCONUT OIL	PALM OIL	PALM STEARIN	SOYBEAN OIL	SUNFLOWER OIL	SUNFLOWER OIL <sup>1</sup>	RAPESEED OIL <sup>2</sup>	RAPESEED OIL <sup>3</sup>	BEEF TALLOW	ANIMAL FATS
<b>C6</b>	Caproic Acid	Hexanoic Acid	C <sub>6</sub> H <sub>12</sub> O <sub>2</sub>	<1	<1									
<b>C8</b>	Caproic Acid	Octanoic Acid	C <sub>8</sub> H <sub>16</sub> O <sub>2</sub>	3-5	6-9									
<b>C10</b>	Capric Acid	Decanoic Acid	C <sub>10</sub> H <sub>20</sub> O <sub>2</sub>	3-5	4-8									
<b>C12</b>	Lauric Acid	Dodecanoic Acid	C <sub>12</sub> H <sub>24</sub> O <sub>2</sub>	46-50	46-52	<1	<1						<1	<1
<b>C14</b>	Myristic Acid	Tetradecanoic Acid	C <sub>14</sub> H <sub>28</sub> O <sub>2</sub>	14-17	15-20	<3	<2						1-4	<3
<b>C14:1</b>	Myristoleic Acid	Tetradecenoic Acid	C <sub>14</sub> H <sub>26</sub> O <sub>2</sub>										<1	<1
<b>C16</b>	Palmitic Acid	Hexadecanoic Acid	C <sub>16</sub> H <sub>32</sub> O <sub>2</sub>	6-9	8-10	40-47	54-70	9-11	5-7	3-5	2-4	4-5	21-29	21-29
<b>C16:1</b>	Palmitoleic Acid	Hexadecenoic Acid	C <sub>16</sub> H <sub>30</sub> O <sub>2</sub>			<1		<1					2-4	2-4
<b>C18</b>	Stearic Acid	Octadecanoic Acid	C <sub>18</sub> H <sub>36</sub> O <sub>2</sub>	13	13	2-7	3-7	3-5	3-6	3-5	<2	<2	15-24	13-18
<b>C18:1</b>	Oleic Acid	Octadecenoic Acid	C <sub>18</sub> H <sub>34</sub> O <sub>2</sub>	13-19	5-8	36-42	20-35	20-25	18-28	82-86	11-15	55-65	33-46	39-45
<b>C18:2</b>	Linoleic Acid	Octadecadienoic Acid	C <sub>18</sub> H <sub>32</sub> O <sub>2</sub>	1-3	<3	7-12	4-8	50-56	60-68	4-7	10-15	18-25	2-7	4-9
<b>C18:3</b>	Linolenic Acid	Octadecatrienoic Acid	C <sub>18</sub> H <sub>30</sub> O <sub>2</sub>			<1	<1	7-10			7-13	8-12	<2	<2
<b>C20</b>	Aradic Acid	Eicosanoic Acid	C <sub>20</sub> H <sub>40</sub> O <sub>2</sub>	<1	<1	<1		<1	<1		<1		<1	<1
<b>C20:1</b>	Gadoleic Acid	Eicosenoic Acid	C <sub>20</sub> H <sub>38</sub> O <sub>2</sub>	<1							8-11	1-3	<1	<2
<b>C22</b>	Behenic Acid	Docosanoic Acid	C <sub>22</sub> H <sub>44</sub> O <sub>2</sub>							1-2		<3		
<b>C22:1</b>	Erucic Acid	Docosenoic Acid	C <sub>22</sub> H <sub>42</sub> O <sub>2</sub>								41-52			

<sup>1</sup> high grade oleic acid, <sup>2</sup> high grade erucic acid, <sup>3</sup> low grade erucic acid



# CREATING VALUE FOR OUR CUSTOMERS, ANYWHERE IN THE WORLD.



## Global Network

Emery Oleochemicals' operations are supported by a global workforce and an extensive distribution network covering over 50 countries worldwide. Our technical and industry experts located around the world are ready to help you select the best product to meet your specific requirements.

The availability of our products is subject to regional demand and regulations. Detailed information and certifications are available upon request.

Contact us today to learn more about oleochemicals solutions suited for basic to niche applications:  
[www.emeryoleo.com/oleobasics](http://www.emeryoleo.com/oleobasics)





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