





The VVF Story.....

Established in 1939 by Godrej Pallonji Joshi as Vegetable Vitamin Foods (VVF).

Rich & long history of processing vegetable oils - Started India's first continuous solvent extraction plant in 1956.

In 1971, foray into the world of Oleochemicals through manufacturing & marketing of specialty fatty acids.

Set up a world class fractionated fatty acid plants for supply of specialty fatty acids to global customers.

Successfully commissioned 100,000 MT per annum capacity fatty alcohol plant based on Lurgi's wax ester technology at Mumbai, India in 2004.

Significantly increased global presence in developed markets by key acquisitions:

- Colgate Palmolive's Soap and Home care Liquid production facility at Kansas, USA and Canada in 2007
- Noodle and Soap processing plant at Raciborz, Poland from Henkel Germany in 2008.
- soap & Anti-Perspirant / Deodorant manufacturing plant in Chicago, Illinois from DIAL Corp in 2009.

Established bulk storage facilities at Texas, Rotterdam and Sewree to meet growing demand.

A Partner of Choice



Bussiness Overview

- We have annual capacity of 500,000 MT of Fatty Alcohol, Fatty Acid and Glycerin.
- We serve wide geographical markets in diverse segments like Home and Personal Care, Oilfield, Paints and Coatings etc. through strong global distribution network which includes bulk storage facilities in US and Europe.
- Lurgi's 3rd generation wax ester technology and our strict Quality Control Protocols ensure delivery of high performance products.
- Our close proximity to raw material sources gives us competitive edge in International markets.
- Ability to leverage wide variety of renewable feedstocks enables us to offer wide range of products for targeted segments.
- VVF is India's largest Oleochemical manufacturer manufacturing the whole range of fatty acids, fatty alcohols and glycerine.
- VVF serves global markets in diverse segments like home and personal care, cosmetics, oilfield, rubber and paint and coatings to name a few and has a strong multinational distribution network which include bulk storage facilities in India, USA and Europe.
- VVF uses Lurgi's 3rd generation wax ester technology and has a strict quality control protocol ensuring consistency in quality of its products.
- VVF's presence in Indonesia gives it an advantage with raw material sources an enabler to compete internationally.
- VVF's ability to use multiple feedstocks Indigenous and International enables the company to offer a wide range of products for multiple market segments.
- VVF's focus on R&D drives innovation and lastly;
- VVF's focus on the environment through conscious sustainable raw material sourcing makes it the partner of choice to many.



To be a professionally managed and agile multinational organization committed to a culture of innovation and operational excellence. We will accelerate our growth into new business segments and geographies creating sustained value for our customers, employees and other stakeholders.

Mission

Our mission is to positively impact lives by striving to be the best in the world at everything we do.

Values

Openness Integrity Respect Innovation Agility Trust



Fatty Alcohols

- WF established state-of-the-art fatty alcohol production facility based on Lurgi's 3rd generation wax ester technology near Mumbai in India. It is strategically located near two major ports in Mumbai. The facility produces high quality natural saturated fatty alcohols under the registered trade name Vegarol[™].
- The facility is one of the largest in Asia for manufacturing fatty alcohols, producing numerous products including mid-cut alcohols such as Lauryl and Myristyl, to long chain alcohols such as Cetyl, Stearyl, Cetostearyl, and Behenyl.
- Fatty alcohols are used in various end-use applications like Home Care and Personal Care, Surfactants, Intermediate for Pharmaceutical and Agrochemicals, Pour point regulator, Antioxidants, Cleaning Agent, Defoamers, Detergency Booster, Lubricant, Plastic additives and Solubilizers.

Fatty Acids

WF is India's largest manufacturer and exporter of high quality distilled fatty acids produced from "all-vegetable" renewable feedstock of palm, coconut and rapeseed. We offer entire range of specialty fatty acids including Caproic, Caprylic, Capric, Lauric, Myristic, Palmitic, Stearic, Oleic, Erucic and Behenic acid.

Our Primary products include:

• FATTY ALCOHOLS • FATTY ACIDS • GLYCERIN • EMULSIFYING WAX • NEW PRODUCTS

- Our fatty acid facilities are well-equipped with efficient state-of-the-art fractional distillation columns, enabling us to make remarkable breakthroughs in specialized areas and offer highly customized products to customers in niche segments.
- Fatty acids are used in various end-use applications running the gamut of possibilities including Personal Care, Aromatic Agent,
 Candles and Wax, Carrier Fluid Cleaning Agent, Defoamers, Deinking Detergent Agent, Emulsifiers, Lubricants, Plasticizers, Rubber
 Intermediate, Surfactants, Solubilizers, Textile and Leather Auxiliaries.

Glycerin

- WF is a major global supplier of glycerin since last 40 years .Our high quality refined glycerin produced from "all-vegetable" source is Kosher certified.
- With Continuous improvements, state-of-the-art processes and quality systems deliver natural based Refined Glycerin
 to CP, IP, BP, EP and USP standards.
- Glycerin offers numerous end-use applications, including Personal Care, Pharmaceuticals, Food and Beverages and many
 industrial applications Cellulose Films, De-icing & Anti-freeze, Emulsifier, Ester Intermediate Moisturizing, Nitration, Plasticizers
 and Polyol/Polyurethanes.

					FATTY /	ACID SPECIFIC	ATIONS					
PRODUCT NAME	CAPROIC ACID 50%	CAPRYLIC ACID 99%	CAPRIC ACID 99%	CAPRYLIC-CAPRIC ACID	LAURIC ACID 99%	MYRISTIC ACID 99%	STEARIC ACID 90%	VEGACID SUPERFLEX	VEGACID S	OLEIC ACID 60	PALMITIC ACID 98%	PALMITIC ACID 85%
Generic Name	Caproic 50 (C6 50%)	Caprylic 99 (C8 99%)	Capric 99 (C10 99%)	Caprylic Capric (60/40)	Lauric 99 (C12 99%)	Myristic 99 (C14 99%)	Stearic 90 (C18 90%)	Proprietary blend	Proprietary blend	Oleic 60 (C18: 1 60%)	Palmitic 98 (C16 98%)	Palmitic 85 (C16 85%)
Test Parameters												
Appearance	Clear yellow liquid	Clear pale yellow liquid	Clear pale yellow liquid	Clear pale yellow liquid	White solid/flakes	White solid/flakes	White flakes	Free flowing yellow liquid	Pale yellow colored liquid	Pale yellow colored liquid	White flakes/Solid/ beads	White flakes/ Solid/beads
Color in lovibond 5/4" cell		Y:3.0, R: 0.5 Max	Y:3.5, R: 0.5 Max	Y:3.0, R: 0.8 Max	Y:2.0, R: 0.2 Max	Y:2.0, R: 0.2 Max	Y:2.0, R: 0.3 Max	1" cell: Y:2.0, R: 0.5 Max	Gardener: 1.5 Max	Y:25.0, R: 2.5 Max	Y:2.0, R: 0.3 Max	Y:5.0, R: 1.0 Max
Acid value	375 Min	383390	321329	345372	278282	243248	195202	201209	195205	200210	216221	210230
Saponification value	376 Min	384391	322330	346373	279283	244249	196203		196206		217222	211231
lodine value	15.0 Max	0.5 Max	0.5 Max	0.5 Max	0.5 Max	0.5 Max	1.0 Max	3845	120140	5075	1.0 Max	15.0 Max
Moisture, %	1.0 Max							0.3 Max				
Titre°C		1518	3032	7.0 Max	4244	5254	6569	4248	20.0 Max		5863	
Unsap matter, %								1.0 Max	1.0 Max	2.0 Max		1.0 Max
Ash, %												
Total polyunsaturates, %								0.8 Max				
Peroxide value, meq/kg								10 Max				
FATTY ACID TYPICAL COMPOSITION, % BY GLC												
C6	50.0 Min	-	-	1.0 Max	-	-	-	-	-	-	-	-
C8	10.0 Min	99.0 Min		5258							-	-
C10			99.0 Min	4246	Upto C10: 1.0 Max							
C12				1.5 Max	99.0 Min	Upto C12: 1.0 Max		0.1 Max				
C14					1.0 Max	99.0 Min	Upto C14: 1.0 Max	C14 & lowers: 0.5 Max		C14 & lowers: 3.0 Max	1.0 Max	C14 & below: 5.0 Max
C16						1.0 Max	8.0 Max	2836	25	2030	98.0 Min	85.089.9
Upto C16								C16:1 = 0.1 Max				C18 & Higher:10.0 Max
C18							90.0 Min	2132	26	15.0 Max	2.0 Max	
C18:1								3845	3545	5060		
C18:2								0.5 Max	2030	15.0 Max		
C18:3								C18:0+C18:1: 6070	18.0 Max			
C20								0.5 Max				
Upto C20		-							C20 & above: 12 Max	C20 & above: 2.0 Max		
C20:1												
C22:0												
C22:1												
C24:0		-										
C24:1												
Others		1.0 Max	1.0 Max	1.0 Max	1.0 Max	1.0 Max	2.0 Max		2.0 Max		1.0 Max	
Packaging	180 kg HMHDPE drums	Bulk in ISO container/ 180 kg HMHDPE drums	Bulk in ISO container/ 180 kg HMHDPE drums	Bulk in ISO container/ 180 kg HMHDPE drums	Bulk packaging in ISO container/500 kg Jumbo bags/25 kg Paper bags with polyliner or HDPE bags	Bulk packaging in ISO container/500 kg Jumbo bags/25 kg Paper bags with polyliner or HDPE bags	Bulk packaging in ISO container/500 kg Jumbo bags/25 kg Paper bags with polyliner or HDPE bags	Bulk in ISO container/ ISO 180 kg HMHDPE drums	Bulk in ISO container/ 180 kg HMHDPE drums/Flexi Container	Bulk in ISO container/ 180 kg HMHDPE drums/Flexi Container	Bulk packaging in ISO container/25 kg Paper bags with Polyliner or HDPE bags	Bulk packaging in ISO container/25 kg Paper bags with Polyliner or HDPE bags

					FATTY A	ACID SPECIFIC	ATIONS					
PRODUCT NAME	STEARIC ACID (UTSR)	DFA 1218	STEARIC ACID (DTP-7)	STEARIC ACID (DTP-CT)	STEARIC ACID (P12)	OLEIC ACID K (OLEIC ACID)	VEGACID 1880 (OLEIC ACID)	VEGACID 1890 (OLEIC ACID)	ERUCIC ACID-90%	ERUCIC ACID-70%	BEHENIC ACID 90	BEHENIC ACID 8590
Generic Name	Stearic acid rubber grade	Distilled Fatty Acid (C12 45%)	Stearic acid (C1618 30/50)	Stearic acid (C1618 35/65)	Stearic acid (C1618 55/45)	Oleic 70 (C18:1 70%)	Oleic 20 Grade 1 (C18:1 20%)	Oleic 20 Grade 2 (C18:1 20%)	Erucic 90 (C22:1 90%)	Erucic 70 (C22:1 70%)	Behenic 90 (C22:0 90%)	Behenic 8590 (C22:0 85%)
Test Parameters												
Appearance	Solid flakes	Light yellow clear liquid	Pale yellow colored flakes	White flakes	White flakes	Pale yellow colored liquid	Yellow liquid	Yellow liquid	Pale yellow colored liquid	Pale yellow colored liquid	White flakes	White flakes
Color in lovibond 5/4" cell		Y:10.0, R: 1.0 Max	Y: 4.5, R: 0.5 Max	Y: 4.5, R: 0.5 Max	Y: 2.5, R: 0.5 Max	Y: 12.0, R: 1.5 Max	Report	Report	Y: 3.0, R: 0.5 Max	-	Y: 10.0, R: 1.2 Max	Y: 7.0, R: 1.0 Max
Acid value	180 Min	242262	200210	195210	205212	195205	195205	195205	163170	165180	161169	161170
Saponification value	181 Min	243263	201211	196211	206213	196206	196206	196206	164171	166181	162170	162171
lodine value	8.0 Max	820	3.0 Max	2.0 Max	0.5 Max	105 Max	145 M in	145 Min	7280	6585	3.0 Max	2.0 Max
Moisture, %							0.15 Max	0.15 Max		0.1 Max		
Titre°C	50 Min	2028	5364	5964	5457	35 Max	22 Max	22 Max	2535		74 Min	7280
Unsap matter, %		0.5 Max	0.75 Max	1.0 Max	0.5 Max	1.0 Max			2.0 Max		2.5 Max	2.5 Max
Ash, %	0.1 Max	0.1 Max	0.01 Max	0.01 Max	0.01 Max							
Total polyunsaturates, %												
Peroxide value, meq/kg												
FATTY ACID TYPICAL COMPOSITION, % BY GLC												
C6												
C8												
C10												
C12		4556	1.0 Max		1.0 Max							
C14		Report	2.0 Max	-	2.0 Max							
C16			3050	35.0 Max	5355		4.5	6.8				
Upto C16						10.0 Max						
C18			50-65	60.0 Min	4245	12.0 Max	2.7	3.2				10.0 Max
C18:1			5.0 Max		2.0 Max	70.0 Min	22.9	27.5				
C18:2						15.0 Max	32.4	37.2				
C18:3							19.8	22.3				
C20					1.0 Max					C20 Total: 1 Max		12.0 Max
Upto C20									3.0 Max		Upto C20: 10.0 Max	
C20:1							12.8	0.7	2.0 Max			
C22:0									4.0 Max		90.0 Min	8590
C22:1									90.0 Min	C22:1 Cis: 70 Min		
C24:0									1.5 Max		3.0 Max	4.0 Max
C24:1									3.0 Max			
Others			1.0 Max	2.0 Max	1.0 Max				4.0 Max	2.5 Max	2.0 Max	2.0 Max
Packaging	500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags	Bulk in ISO container/ 180 kg HMHDPE drums / Flexi Container	500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags	500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags	500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags	Bulk in ISO container/180 kg HMHDPE drums	Bulk in ISO container/ 180 kg HMHDPE drums/ Flexi Container	Bulk in ISO container/180 kg HMHDPE drums / Flexi Container	Bulk in ISO container/180 kg HMHDPE drums or MS (Lacquer coated)	Bulk in ISO container/180 kg HMHDPE drums	500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags	500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bag

			FATTY	ALCOHOL SPECIFICA	ATIONS				
PRODUCT NAME	VEGAROL 1214	VEGAROL 1216	VEGAROL 1218	VEGAROL 1618 TA	VEGAROL 1618 (50:50)	VEGAROL 1618 PS	VEGAROL 1695	VEGAROL 1698	
Generic Name	Lauryl Myristyl Alcohol (C1214)	Lauryl Myristyl Alcohol with Cetyl (C12 to C16)	Lauryl Myristyl Alcohol with Cetyl & Stearyl (C12 to C18)	Cetostearyl alcohol (C1618 30/70)	Cetostearyl alcohol (C1618 50/50)	Cetostearyl alcohol (C1618 60/40)	Cetyl alcohol 95% (C16 95)	Cetyl alcohol 98% (C16 98)	
Test Parameters									
Appearance	Colorless, clear liquid	Colorless, clear liquid	Colorless, clear liquid	White solid/pastilles	White solid/pastilles	White solid/pastilles	White solid/pastilles	White solid/pastilles	
Color APHA	10 Max	10 Max	10 Max	10 Max	10 Max	10 Max	10 Max	10 Max	
Acid value	0.1 Max	0.1 Max	0.1 Max	0.1 Max	0.2 Max	0.2 Max	0.1 Max	0.1 Max	
Saponification value	0.5 Max	0.5 Max	0.5 Max	0.5 Max	0.5 Max	0.5 Max	0.3 Max	0.3 Max	
lodine value	0.3 Max	0.3 Max	0.3 Max	0.3 Max	0.5 Max	0.5 Max	0.3 Max	0.3 Max	
Hydroxyl value	285295	280290	260280	210220	210225	218228	225235	225235	
Moisture, %	0.1 Max	0.1 Max	0.1 Max	0.2 Max	0.3 Max	0.3 Max	0.15 Max	0.1 Max	
Solidification range, °C	1723	1825	1828	5054	4852	4751	4649	4652	
FATTY ALCOHOL TYPICAL COMPOSITION, % BY GLC									
C8 alcohol		0.2 Max							
C10 alcohol		1.0 Max							
C8 & C10 alcohol	2.0 Max	-	2.0 Max						
C14 & lower alcohol					3.0 Max				
C12 alcohol	7078	6571	4560	0.5 Max		2.0 Max	1.0 Max	0.5 Max	
C14 alcohol	2230	2227	1827	1.5 Max		7.0 Max	3.0 Max	1.0 Max	
C16 alcohol		4-6	813	2535	4555	5565	95.0 Min	98.0 Min	
C18 alcohol		0.5 Max	1014	6570	4555	3545	3.0 Max	1.0 Max	
C16 & C18 alcohol	2.0 Max	-							
C20 alcohol			2.0 Max			2.0 Max			
C20 & higher alcohol				2.0 Max	3.0 Max				
C22 alcohol									
C24 alcohol		-							
Hydrocarbons	0.5 Max	0.5 Max	1.0 Max	0.5 Max	0.5 Max	0.5 Max	0.5 Max	0.5 Max	
Packaging	Bulk Packing in ISO container / 170kg MS (Lacquer coated) drums / HMHDPE drums	Bulk Packing in ISO container / 170kg MS (Lacquer coated) drums / HMHDPE drums	Bulk Packing in ISO container / 170kg MS (Lacquer coated) drums / HMHDPE drums	Bulk packaging in ISO container / 500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags	Bulk packaging in ISO container /25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags	Bulk packaging in ISO container /500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags	Bulk packaging in ISO container /500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags	Bulk packaging in ISO container /500 kg Jumbo bags /25 kg Paper ba with polyliner/50 lbs poly bag 180kg HMHDPE Drums	

			FATTY	ALCOHOL SPECIFICA	ATIONS			
Product Name	Vegarol 1699	Vegarol 1895	Vegarol 1898	Vegarol 1899	Vegarol 1822	Vegarol 2270	Vegarol 2280	Vegarol 2290
Generic Name	Cetyl alcohol 99% (C16 99)	Stearyl alcohol 95% (C18 95)	Stearyl alcohol 98% (C18 98)	Stearyl alcohol 99% (C18 99)	Behenyl alcohol (C1822)	Behenyl alcohol (C22 70)	Behenyl alcohol (C22 80)	Behenyl alcohol (C22 90)
Test Parameters								
Appearance	White solid/pastilles	White solid/pastilles	White solid/pastilles	White solid/pastilles	White solid/pastilles	White solid/pastilles	White solid/pastilles	White solid/pastilles
Color APHA	10 Max	10 Max	10 Max	10 Max	30 Max	20 Max	10 Max	30 Max
Acid value	0.1 Max	0.1 Max	0.1 Max	0.1 Max	0.3 Max	0.1 Max	0.1 Max	0.2 Max
Saponification value	0.3 Max	0.3 Max	0.3 Max	0.3 Max	1.0 Max	0.5 Max	0.3 Max	1.0 Max
lodine value	0.3 Max	0.3 Max	0.3 Max	0.3 Max	0.5 Max	1.0 Max	0.3 Max	1.0 Max
Hydroxyl value	225235	200210	200210	200210	180190	170180	172178	165175
Moisture, %	0.15 Max	0.1 Max	0.1 Max	0.1 Max	0.2 Max	0.1 Max	0.2 Max	0.2 Max
Solidification range, °C	4652	5559	5558	5559	5560	6267		
FATTY ALCOHOL TYPICAL COMPOSITION, % BY GLC								
C8 alcohol								
C10 alcohol								
C8 & C10 alcohol								
C14 & lower alcohol	1.0 Max	1.0 Max						
C12 alcohol								
C14 alcohol			0.5 Max					
C16 alcohol	99.0 Min	5.0 Max	1.0 Max	C16 & lower: 1.0 Max	1.0 Max	0.5 Max	0.5 Max	
C18 alcohol	C18 & Higher: 1.0 Max	95.0 Min	98.0 Min	99.0 Min	4145	48	5.0 Max	2.0 Max
C16 & C18 alcohol								
C20 alcohol					913	1520	1020	10.0 Max
C20 & higher alcohol		2.0 Max	1.0 Max	1.0 Max				
C22 alcohol					4246	7280	8090	90.0 Min
C24 alcohol					2.0 Max	1.5 Max	2.0 Max	4.0 Max
Hydrocarbons	0.5 Max	0.5 Max	0.5 Max	0.5 Max	1.0 Max	1.0 Max	0.5 Max	1.0 Max
Packaging	Bulk packaging in ISO container /500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags	Bulk packaging in ISO container /500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags	Bulk packaging in ISO container /500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags	Bulk packaging in ISO container /500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags	500 kg Jumbo bags/25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags	500 kg Jumbo bags/25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags	500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags	500 kg Jumbo bags /25 kg Paper bags with polyliner or HDPE bags / 50 lbs Poly bags

	EMULSIFYING WAX										
			TYPICAL ANALYSIS PARAMETERS								
TRADE NAME	SPECIFICATION STANDARD	DESCRIPTION	SAPONIFICATION VALUE	ACID VALUE	IODINE VALUE	HYDROXYL VALUE	UNSAP MATTER	ALKALINITY			
VEGAROL® EW 100	CETOMACROGOL EMULSIFYING WAX BP (Nonionic Emulsifying Wax) Complies as per BP 2015 specifications	A white or almost white, waxy solid or pastilles. Practically insoluble in water, producing an emulsion: moderately soluble in ethanol (96%) partly soluble in ether.	2.0 Max	0.5 Max		175-192		Complies as per BP specifications			
VEGAROL® EW 200	EMULSIFYING WAX (Anionic Emulsifying wax) Complies as per BP 2015 specifications	An almost white or pale yellow pastilles / Flakes, becoming plastic when warmed. Practically insoluble in water, forming an emulsion: partly soluble in ethanol (96%)	2.0 Max		3.0 Max		86 Min	Complies as per BP specifications			
VEGAROL® EW 300	EMULSIFYING WAX NF (Nonionic Emulsifying Wax-NF) Complies as per USP 40 NF 35 specifications	Emulsifying wax is a waxy solid/pastilles prepared from Cetostearyl Alcohol containing a polyoxyethylene derivative of a fatty acid ester of sorbitan.	14.0 Max		3.5 Max	178-192					

^{*}Packaging : 25 kg Paper bags

	GLYCERIN CONTROL OF THE CONTROL OF T									
		TYPICAL ANALYSIS PARAMETERS								
TRADE NAME	SPECIFICATION STANDARD	ASSAY	COLOR	SP. GRAVITY	WATER	CHLORIDE	SULPHATE	FATTY ACID & ESTERS	IRON	HEAVY METAL
GLYCERIN USP	Complies as per USP 40 specifications	99.70%	Passes as per USP	1.2625	0.08%	<10 ppm	<10 ppm			<1 ppm
GLYCERIN BP	Complies as per BP 2017 specifications	99.50%		1.2625	0.08%	<10 ppm	<10 ppm	Passes as per BP		<1 ppm
GLYCERIN EP	Complies as per EP 9.0 specifications	99.50%		1.2625	0.08%	<10 ppm	<10 ppm	Passes as per EP		<1 ppm
GLYCERIN IP	Complies as per IP 2014 specifications	99.50%		1.2625	0.08%	<10 ppm	<10 ppm	Passes as per IP	<1 ppm	<1 ppm
GLYCERIN CP	Complies as per IS 1796 - 1986 specifications	99.50%	Passes as per CP grade	1.2625	0.08%	<10 ppm	<10 ppm	0.030% Max	<1 ppm	<1 ppm
Packaging										

^{*} The Glycerin is manufactured from 100% vegetable oil * No solvents are used in manufacturing of Glycerin

NEW PRODUCTS								
PRODUCT NAME	VEGA E TS	VEGAROL LAE 1214 02	VEGAROL LAE 1214 07	VEGAROL CSE 20	VEGAROL CSE 25			
CHEMICAL NAME	Penta Erythritol Tetra Stearate	Lauryl alcohol Ethoxylate 2 moles	Lauryl alcohol Ethoxylate 7 moles	Cetostearyl alcohol Ethoxylate 20 moles	Cetostearyl alcohol Ethoxylate 25 moles			
APPEARANCE	White/Off white flakes/Powder	Colourless liquid	Colourless liquid	White to off white flakes	White to off white flakes			
Packing	25kg paper bag	Bulk packing in ISO Tank/ 190kg HMHDPE Drum	Bulk packing in ISO Tank/ 200kg HMHDPE Drum	25kg paper bag	25kg paper bag			

		FATTY ALCOHOLS: FUNCTIONS & ITS APPLICATION INDUSTRY	
TRADE NAME	GENERIC NAME	FUNCTION & APPLICATION	APPLICATION INDUSTRY
Vegarol 1214	Lauryl Myristyl Alcohol(C1214)	Used as Cleaning/washing agents and additives, Intermediates for Surface-active agents: Non-ionic (Ethoxylates, Alkyl Polyglucosides, etc.), Anionic (Phosphates, Sulfo Succinates, etc.) & Cationic (Quanternary ammonium salts, amine oxides)	Wide application - intermediate for cosmetics / personal care / detergent etc.
Vegarol 1216	Lauryl Myristyl Alcohol with Cetyl (C12 to C16)	Used as Cleaning/washing agents and additives, Intermediates for Surface-active agents: Non-ionic (Ethoxylates, Alkyl Polyglucosides, etc.), Anionic (Phosphates, Sulfo Succinates, etc.) & Cationic (Quanternary ammonium salts, amine oxides)	Wide application - intermediate for cosmetics / personal care / detergent etc.
Vegarol 1218	Lauryl Myristyl Alcohol with Cetyl & Stearyl (C12 to C18)	Used as Cleaning/washing agents and additives, Intermediates for Surface-active agents: Non-ionic (Ethoxylates, Alkyl Polyglucosides, etc.), Anionic (Phosphates, Sulfo Succinates, etc) & Cationic (Quanternary ammonium salts, amine oxides)	Wide application - intermediate for cosmetics / personal care / detergent etc.
Vegarol 1618 TA	Cetostearyl alcohol (C1618 30/70)	Used as Conditioner, Opacifier, Vicosifier, Emollient, Sheen cum Gloss Agent, Emulsifier/Solubilizer in cleaning agents, Creams & Lotion. Intermediate for Non-ionic Surfactants, Poly Acrylates Esters.	Cosmetics / personal care / pharmaceuticals / coatings/metalworking fluids/rolling oils / mining chemicals/ paper & textiles/etc.
Vegarol 1618 (50:50)	Cetostearyl alcohol (C1618 50/50)	Used as Conditioner, Opacifier, Vicosifier, Emollient, Sheen cum Gloss Agent, Emulsifier/Solubilizer in cleaning agents, Creams & Lotion. Intermediate for Non-ionic Surfactants, Poly Acrylates Esters.	Cosmetics / personal care / pharmaceuticals / coatings/ metalworking fluids/rolling oils/ mining chemicals/ paper & textiles/etc.
Vegarol 1618 PS	Cetostearyl alcohol (C1618 60/40)	Used as Conditioner, Opacifier, Vicosifier, Emollient, Sheen cum Gloss Agent, Emulsifier/Solubilizer in cleaning agents, Creams & Lotion. Intermediate for Non-ionic Surfactants, Poly Acrylates Esters.	Cosmetics / personal care / pharmaceuticals/coatings/ metalworking fluids/rolling oils/ mining chemicals/ paper & textiles/etc.
Vegarol 1695	Cetyl alcohol 95% (C16 95)	Used as Emollient, emulsion stabilizer,etc	Cosmetics / personal care / pharmaceuticals etc.
Vegarol 1698	Cetyl alcohol 98% (C16 98)	Used as Cleansing Agent, Emollients, emulsion stabilizers, viscosity control agents, coupling agents & foam stabilizers, Bodying Agent. Used as binders and release agents. Emulsifying Agent & Stiffening agent. Synthetic flavouring substances, Texturizing agent and adjuvants. Intermediate for surfactants, etc. Also, used as Lubricant in Bulk polymerization process.	Cosmetics / personal care / pharmaceuticals/coatings/ metalworking fluids/rolling oils/ mining chemicals/ food/ paper & textiles/polymeretc.
Vegarol 1699	Cetyl alcohol 99% (C16 99)	Used as Cleansing Agent, Emollients, emulsion stabilizers, viscosity control agents, coupling agents & foam stabilizers, Bodying Agent. Used as binders and release agents. Emulsifying Agent & Stiffening agent. Synthetic flavouring substances, Texturizing agent and adjuvants. Intermediate for surfactants, etc. Also, used as Lubricant in Bulk polymerization process.	Cosmetics / personal care / pharmaceuticals/coatings/ metalworking fluids/rolling oils/ mining chemicals/ food/ paper & textiles/polymeretc.
Vegarol 1895	Stearyl alcohol 95% (C18 95)	Used as Emollient, emulsion stabilizer,etc	Cosmetics / personal care / pharmaceuticals etc.
Vegarol 1898	Stearyl alcohol 98% (C18 98)	Used as Cleansing Agent, Emollients, emulsion stabilizers, viscosity control agents, coupling agents & foam stabilizers, Bodying Agent. Used as binders and release agents. Emulsifying Agent & Stiffening agent. Synthetic flavouring substances, Texturizing agent and adjuvants. Intermediate for surfactants, etc. Also, used as Lubricant in Bulk polymerization process.	Cosmetics / personal care / pharmaceuticals/coatings/ metalworking fluids/rolling oils/ mining chemicals/ food/ paper & textiles/polymeretc.
Vegarol 1899	Stearyl alcohol 99% (C18 99)	Used as Cleansing Agent, Emollients, emulsion stabilizers, viscosity control agents, coupling agents & foam stabilizers, Bodying Agent. Used as binders and release agents. Emulsifying Agent & Stiffening agent. Synthetic flavouring substances, Texturizing agent and adjuvants. Intermediate for surfactants, etc. Also, used as Lubricant in Bulk polymerization process.	Cosmetics / personal care / pharmaceuticals/coatings/ metalworking fluids/rolling oils/ mining chemicals/ food/ paper & textiles/polymeretc.
Vegarol 1822	Behenyl alcohol (C1822)	Used as Conditioner, Opacifier, Vicosifier, Emollient, Sheen cum Gloss Agent. Intermediate for Non-ionic Surfactants, Poly Acrylates Esters, Phosphites, Quaternary ammonium salts, Alkyl amine oxide.	Cosmetics (generally for sunscreen) / personal care / pharmaceuticals/ oil field textiles etc.
Vegarol 2270	Behenyl alcohol (C22 70)	Used as Conditioner,Opacifier, Vicosifier, Emollient, Sheen cum Gloss Agent. Intermediate for Non-ionic Surfactants, Poly Acrylates Esters, Phosphites, Quaternary ammonium salts, Alkyl amine oxide.	Cosmetics (generally for sunscreen) / personal care / pharmaceuticals/ oil field textiles etc.
Vegarol 2280	Behenyl alcohol (C22 80)	Used as Conditioner, Opacifier, Vicosifier, Emollient, Sheen cum Gloss Agent. Intermediate for Non-ionic Surfactants, Poly Acrylates Esters, Phosphites, Quaternary ammonium salts, Alkyl amine oxide.	Cosmetics (generally for sunscreen) / personal care / pharmaceuticals/ oil field textiles etc.
Vegarol 2290	Behenyl alcohol (C22 90)	Used as Conditioner, Opacifier, Vicosifier, Emollient, Sheen cum Gloss Agent. Intermediate for Non-ionic Surfactants, Poly Acrylates Esters, Phosphites, Quaternary ammonium salts, Alkyl amine oxide.	Cosmetics (generally for sunscreen) / personal care / pharmaceuticals/ oil field textiles etc.

		FATTY ACIDS: FUNCTIONS & ITS APPLICATION INDUSTRY	
PRODUCT NAME	GENERIC NAME	FUNCTION & APPLICATION	APPLICATION INDUSTRY
Caproic Acid 50%	Caproic 50 (C6 50%)	Used as inhibitor in production of polyester plasticizer. Used as flavoring and Perfuming Agent.	Perfume / flavours/polyester /metalworking fluids etc
Caprylic Acid 99%	Caprylic 99 (C8 99%)	Used as disinfectant, alagaecide,bactericide,etc	Surface cleaner/home care/ agrochemicals
Capric Acid 99%	Capric 99 (C10 99%)	Intermediate for manufacturing of esters for artificial fruit flavours and for synthesis of other organic chemicals	Perfumes/ lubricants/rubber/food additive/pharmaceuticals etc.
Caprylic-Capric Acid	Caprylic Capric (C810 60/40)	Intermediates for Medium Chain Triglycerides/Caprylic-Capric Triglyceride manufacturing, Glycerol Esters, Polyol Esters, Solubilizer for mineral oil, Corrosion inhibitors etc	Cosmetics/ personal care/ food & flavours/ lubricants/ metalworking fluids
Lauric Acid 99%	Lauric 99 (C12 99%)	Used as Soaping agent, foaming agent in Shaving cream, Liquid Soap. Intermediate for Non-ionic Surfactants (Fatty Acid Ethoxylates), Amphoteric Surfactants (Betaines, Imidazoles, etc)	Personal care/ textiles / food & beverages etc.
Myristic Acid 99%	Myristic 99 (C14 99%)	Used as Soaping agent, foaming agent in Shaving cream, Liquid Soap, Surface Cleaners. Intermediate for Non-ionic Surfactants (Fatty Acid Ethoxylates), Amphoteric Surfactants (Betaines, Imidazoles, etc)	Personal care/ home care / textiles etc.
Stearic Acid 90%	Stearic 90 (C18 90%)	Used as foam stabilizer, Emulsifier, Opacifier, Viscosifier. Intermediates for Glycerol, Polyol and other Esters, Cationic Surfactants (Fatty Acid Ester Quats), Non-ionic Surfactants, etc.	Personal care/ metal working fluids / oil & gas / textiles etc.
Vegacid Superflex	Proprietary blend	Additive in manufacturing of Styrene-Butadiene-Rubber (SBR)	Rubber industry
Vegacid S	Proprietary blend	Used as Emulsifier , Solubilizer, Corrosion Inhibitor, Stabilizer in Metal cutting oil and other lubricants. Intermediate for variety of process additives.	Lubricants/cosmetics/oilfield/textile auxillaries/ rubber/ paints & coatings/pharmaceutics/mining industry etc.
Oleic 60	Oleic 60 (C18: 1 60%)	Used as Emulsifier , Solubilizer, Corrosion Inhibitor, Stabilizer in Metal cutting oil and other lubricants. Intermediate for variety of process additives.	Lubricants/cosmetics/oilfield/textile auxillaries/ rubber/ paints & coatings/pharmaceutics/mining industry etc.
Palmitic Acid 98%	Palmitic 98 (C16 98%)	Used as Emulsifier in Creams & Lotions. As a supplement in Dairy Cattle Feed Intermediate for variety of Esters and amides	Cosmetics/personal care/pharmaceuticals/ animal feed
Palmitic Acid 85%	Palmitic 85 (C16 85%)	Used as Emulsifier in Creams & Lotions. As a supplement in Dairy Cattle Feed Intermediate for variety of Esters and amides	Cosmetics/personal care/pharmaceuticals/ animal feed
Stearic Acid (UTSR)	Stearic acid rubber grade	Used in tyre manufacturing	Tyre / rubber industry
DFA 1218	Distilled Fatty Acid (C12 45%)	Used in Soap manufacturing and Leather chemicals	Cosmetics / personal care / leather industry etc.
Stearic Acid (DTP-7)	Stearic acid (C1618 30/50)	Used as foam stabilizer, Emulsifier, Opacifier, Viscosifier. Intermediates for Glycerol, Polyol and other Esters, Cationic Surfactants (Fatty Acid Ester Quats), Non-ionic Surfactants, Amides, etc.	Cosmetics/personal care/pharmaceuticals/ polymers & plastics / textile auxillaries
Stearic Acid (DTP-CT)	Stearic acid (C1618 35/65)	Used as foam stabilizer, Emulsifier, Opacifier, Viscosifier. Intermediates for Glycerol, Polyol and other Esters, Cationic Surfactants (Fatty Acid Ester Quats), Non-ionic Surfactants, Amides, etc.	Cosmetics/personal care/pharmaceuticals/ polymers & plastics / textile auxillaries
Stearic Acid (P12)	Stearic acid (C1618 55/45)	Used as foam stabilizer, Emulsifier, Opacifier, Viscosifier. Intermediates for Glycerol, Polyol and other Esters, Cationic Surfactants (Fatty Acid Ester Quats), Non-ionic Surfactants, Amides, etc.	Cosmetics/personal care/pharmaceuticals/ polymers & plastics / textile auxillaries
Oleic Acid K	Oleic 70 (C18:1 70%)	Used as Emulsifier , Solubilizer, Corrosion Inhibitor, Stabilizer in Metal cutting oil and other lubricants. Intermediate for variety of process additives like Oleamides.	Lubricants/cosmetics/oilfield/textile auxillaries/ rubber/ paints & coatings/pharmaceutics/mining industry etc.
Vegacid 1880	Oleic 20 Grade 1 (C18:1 20%)	Used as Emulsifier , Solubilizer, Corrosion Inhibitor, Stabilizer in Metal cutting oil and other lubricants. Intermediate for variety of process additives.	Lubricants/cosmetics/oilfield/textile auxillaries/ rubber/ paints (Alkyd Resin mfg.) & coatings/pharmaceutics/mining industry etc.
Vegacid 1890	Oleic 20 Grade 2 (C18:1 20%)	Used as Emulsifier , Solubilizer, Corrosion Inhibitor, Stabilizer in Metal cutting oil and other lubricants. Intermediate for variety of process additives.	Lubricants/cosmetics/oilfield/textile auxillaries/ rubber/ paints (Alkyd Resin mfg.) & coatings/pharmaceutics/mining industry etc.
Erucic Acid-90%	Erucic 90 (C22:1 90%)	Used by derivatizing it into amide like Erucamide and other speciality additives	Plastic and polymer/food/textiles/lubricants/paints/ink/etc
Erucic Acid-70%	Erucic 70 (C22:1 70%)	Used by derivatizing it into amide like Erucamide and other speciality additives	Plastic and polymer/food/textiles/lubricants/paints/ink/etc
Behenic Acid 90	Behenic 90 (C22:0 90%)	Used by derivatizing it into esters, Quats, Silver Salts and other speciality additives	Personal care / cosmetics/paper industry/fabric care & industrial surfactants/food/photographic film industry etc.
Behenic Acid 8590	Behenic 8590 (C22:0 85%)	Used by derivatizing it into esters, Quats, Silver Salts and other speciality additives	Personal care / cosmetics/paper industry/fabric care & industrial surfactants/food/photographic film industry etc.

	EMULSIFYING WAX: FUNCTIONS & ITS APPLICATION INDUSTRY								
TRADE NAME DESCRIPTION FUNCTIONS & ITS APPLICATION APPLICATION INDUSTR									
Vegarol® EW 100	Cetomacrogol Emulsifying wax BP (Non-ionic emulsifying wax)	Emollient, carrier, excipient in Skin creams, antiperspirants, depilatories, hair conditioners, relaxers & dyes	Cosmetics / personal care /pharmaceuticals						
Vegarol® EW 200	Emulsifying wax (Anionic emulsifying wax)	Emollient, carrier, excipient in Skin care, sun care, depilatories,etc	Cosmetics / personal care/pharmaceuticals						
Vegarol® EW 300	Emulsifying wax NF (Nonionic emulsifying wax-NF)	Emollient, carrier, excipient in Lotion and cream	Cosmetics / personal care/pharmaceuticals						

	GLYCERIN: FUNCTIONS & ITS APPLICATION INDUSTRY							
TRADE NAME	DESCRIPTION	FUNCTIONS & ITS APPLICATION	APPLICATION INDUSTR					
GLYCERIN USP/BP/IP/CP/EP	Glycerin	It has wide range of application. Used as humectants, humidifier, plasticizer. Intermediate in the production of propylene glycol, Glycerol esters, Epichlorohydrin, nitroglycerine, and acrolein.	Personal care/cosmetcis/pharmaceuticals/beverages /tobacco/coatings/paper/lubricants etc.					

	NEW PRODUCTS: FUNCTIONS & ITS APPLICATION INDUSTRY								
TRADE NAME	DESCRIPTION	FUNCTIONS & ITS APPLICATION	APPLICATION INDUSTRY						
Vega ETS	Pentaerythritol Tetra Stearate	Used as external/internal lubricant, Mould release agent, stabilizer, Emolliency & Lubricant booster	Engineering plastics (ABS/PC/PA/PET/PBT) / Optical storage / Rolling oils / Cosmetics						
Vegarol LAE 1214 02	Lauryl alcohol Ethoxylate 2 moles	Used as an emulsifer, wetting agent, defoamer, Detergent. Intermediate for Manufacturing of Lauryl Ether Sufates, Lauryl Ether Sulpho-Succinates, Lauryl Ether Phosphates	Home care / Industrial detergent / paper & pulp/ oil field / agrochemicals/plastic & polymer						
Vegarol LAE 1214 07	Lauryl alcohol Ethoxylate 7 moles	Used as an emulsifer, wetting agent, defoamer, Detergent.	Home care / industrial detergent / paper & pulp/oil field / agrochemicals/plastic & polymer						
Vegarol CSE 20	Cetostearyl alcohol Ethoxylate 20 moles	Used as Non-ionic Emulsifying Agent, Solubilizing Agent, Dye levelling Agent	Cosmetics/personal care / pharmaceuticals / textile auxillaries / metal working / industrial cleaner						
Vegarol CSE 25	Cetostearyl alcohol Ethoxylate 25 moles	Used as Non-ionic Emulsifying Agent & Solubilizing Agent	Cosmetics/personal care/pharmaceuticals/ textile auxillaries/ metal working/industrial cleaner						



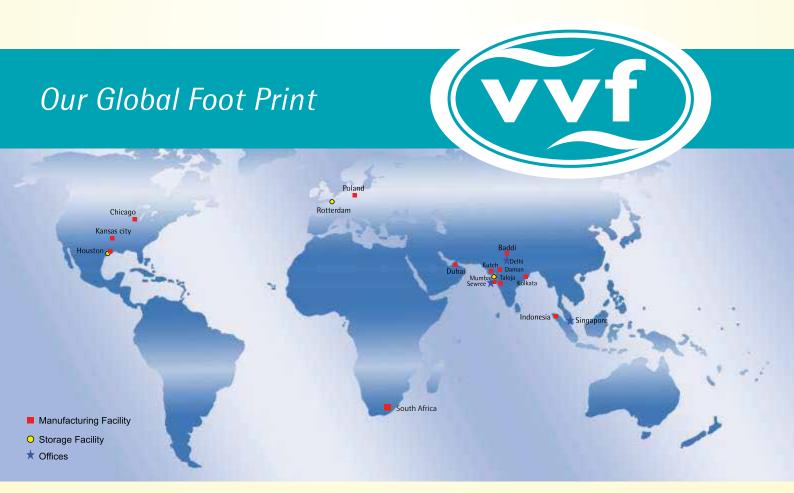
Innovation:

VVF constantly endeavors to be a sustainable innovator and the partner of choice to its customers.

- The longstanding partnerships in our personal care business and the relationship with VVF's global multinational customers, helps the company to
 understand market trends and offer bespoke and customized solutions.
- A full-fledged application development and business development team can add in innovation and recommendation of products, solutions and applications.
- Our highly specialised research and development team works with the global commercial teams of our multinational customers to develop new products, new processes and new applications.

Environment – Social – Economic:

- WVF is a registered member of the RSPO and has the RSPO-SCC (Mass Balance) certification.
- Long-term sustainability for VVF rests on 3 pillars: Environmental, Social and Economic.
- Our energy efficient, green manufacturing practices make us unique.
- Our reliance on methanol free, chromium free manufacturing process and state-of-the-art captive power generation plant have made us a partner of
 choice for a number of environmentally conscious multinational customers.
- Fair trade, fair business practices and focus on long-term sustainable growth are some of our other fundamental business traits.
- Our quality recognition includes certification for ISO 9001:2015, ISO 14001, OHSAS 18001, FDA approval for Glycerin, GMP +B2 certificate for fatty acids, ISO 22000 (Food safety management system), Kosher and Halal for production facilities.



VVF (India) Ltd

Head Office and Registered Office

109, Opposite Sion Fort Garden, Sion (East), Mumbai India 400022

Call Us: +91 22 4028 2095 • Fax: +91 22 2407 3771 • Mail: oleomarketing@vvfltd.com • website: - www.vvfltd.com