VVF Limited
Address: 109, Sion (East), Mumbai 400 022, India
Telephone: 91-22-40282000; Fax: 91-22-24073771
Website: www.vvfltd.com; E-mail: doy@vvfltd.com

MATERIAL SAFETY DATA SHEET

Product Name: Vegarol® 1618 (50:50)	Version: 1.01	Date: May 25, 2009

1. CHEMICAL PRODUCT IDENTIFICATION	
1.1 Product Name	Ceto stearyl alcohol 50:50
1.2 Common Chemical Name	Ceto stearyl alcohol
1.3 Product Code (Supplier)	Vegarol® 1618 50:50

2. COMPOSITION / INFORMATION ON INGREDIENTS	
2.1 Chemical Name	Blend of 1-octadecanol and 1-hexadecanol, blend of alcohol 14-18 and hexadecan-1-ol
2.2 % Compound	100
2.3 CAS Number	67762-30-5; 36653-82-4
2.4 EINECS Number	267-009-1; 253-149-0

3. HAZARD IDENTIFICATION	
3.1 Environmental Hazards	Flaking of the product will result in dust formation. This dust is combustible
3.2 Human Health Hazards, Effects, and Symptoms:	
a. Ingestion	May cause slight irritation to gastrointestinal tract
b. Inhalation	No harmful effect expected at ambient temperature. Mist or vapours of the product could cause irritation to the pulmonary tract
c. Skin Contact	Causes slight irritation
d. Eye Contact	May cause mild transient irritation

4. FIRST AID MEASURES	
4.1 Ingestion	Consult a doctor immediately. Drink plenty of water. However, if the person is unconscious, do not provide any type of ingestion
4.2 Inhalation	Remove to fresh air immediately. In case of breathing difficulty try artificial respiration. Get medical attention as soon as possible
4.3 Skin Contact	Wash material off the skin with plenty of soap and water. If redness or itching persists, seek medical attention
4.4 Eye Contact	Wash eyes with water for at least 15 minutes. If redness or itching persists, seek medical attention

5. FIRE FIGHTING MEASURES	
5.1 Extinguishing Media:	
a. Suitable	Carbon dioxide, dry chemical, water fog, or foam
b. Not Suitable	Water
c. Special Fire Fighting Procedures	Wear self-contained breathing apparatus and protective clothing to avoid direct contact with

VVF Limited

5. FIRE FIGHTING MEASURES	
	eyes and skin. In case of high temperature or fire, use a water jet to cool the tank containing the product
5.2 Unusual Fire or Explosion Hazards	None
5.3 Hazardous Thermal Decomposition	On decomposition, the product releases carbon dioxide, carbon monoxide, hydrocarbons, soot, aldehydes and ketones
5.4 Protection for Fire-Fighters	Self-contained breathing apparatus, protective clothing and a face mask

6. ACCIDENTAL RELEASE MEASURES	
6.1 Personal Precautions	Wear chemical safety goggles, a respirator, rubber boots and protective clothing providing coverage to entire body
6.2 Environmental Precautions	In case of spillage, cover the spilt amount with sand or soil to absorb the product. Then, collect the sand or soil with the absorbed product into a suitable container and dispose. Prevent entry of product into drains and ground water
6.3 Clean Up Method	Mop up and collect in a dry container for disposal. Wash the area with water. Use non-sparking tools

7. HANDLING AND STORAGE	
7.1 Handling	Follow good hygiene and safety procedures. Avoid any direct contact with the product. Wash hands with soap and water after handling the product. Keep away from heat, strong acids and oxidising agents
7.2 Storage	Store in sealed containers, in a cool and dry place
7.3 Suitable Packing Materials	HDPE carbuoys, stainless steel tanks or laquer lined MS drums
7.4 Unsuitable Packing Material	Unlined MS drums

8. EXPOSURE CONTROLS / PERSONAL PROTECTION	
8.1 Respiratory System Protection	No protection required when adequate ventilation is available at room temperature. In presence of mist or vapour use self-contained NIOSH/MSHA approved respirator
8.2 Skin and Body Protection	Uniform, apron and rubber boots. Take a shower if the product comes in contact with skin
8.3 Hand Protection	Rubber gloves
8.4 Eye Protection	Safety goggles and a face mask. Keep a source of water ready in case the product comes in contact with eyes

9. PHYSICAL AND CHEMICAL PROPERTIES	
9.1 Physical State	Solid at 25^0C
9.2 Colour	Colourless

VVF Limited

9.3 Odour	Characteristic fatty alcohol odour
9.4 Boiling Range	315 - 350^{0}C
9.5 Melting Range	48^{0}C - 52^{0}C
9.6 Solubility Water	Insoluble in water
9.7 Relative Density	0.81 at 60^{0}C
9.7 Solubility Oil and Solvents	Not available
9.8 Vapour Density (Air = 1)	Not available
9.9 Vapour Pressure, mm of Hg	Not available
9.10 Flash Point	Approximately 180^{0}C
9.11 Auto Ignition Temperature	Not available
9.12 Lower Explosion Limit	Not available
9.13 Upper Explosion Limit	Not available
9.14. Average Molecular Weight	249 - 267

10. STABILITY AND REACTIVITY	
10.1 Chemical Stability	Stable under normal operational conditions
10.2 Conditions to Avoid	Sources of heat, ignition and flame
10.3 Materials to Avoid	Strong acids and oxidising agents
10.4 Hazardous Polymerisation Products	None
10.5 Hazardous Decomposition Products	Partial combustion results in the release of carbon monoxide, carbon dioxide, aldehydes and ketones. Complete combustion results in the formation of carbon dioxide and water

11. TOXICOLOGICAL INFORMATION	
11.1 Acute Toxicity:	
a. Oral (LD50) (Rat)	> 5 gm/kg
b. Dermal (LD50) (Rabbit)	Not available
c. Inhalation (LC50)	Not available
d. Skin Irritation	Produces mild primary irritation upon repeated and prolonged exposure
e. Eye Irritation	Mild transient irritation. Mild irritation observed in rabbits at 500 mg dosage level of undiluted product
f. Sensitization	Not available
g. Chronic Toxicity	Not available
h. Carcinogenicity	Not available

12. ECOLOGICAL INFORMATION	
12.1 Comment	Do not dispose of the product into the immediate environment. The product should not seep into any kind of water without treatment. The product is easily biodegradable
12.2 Eco-Toxicity	Data not available

13. DISPOSAL CONSIDERATIONS	
13.1 Methods of Disposal	Disposal methods should be in accordance with local, federal and state environmental regulations

VVF Limited

14.TRANSPORT INFORMATION	
14.1 UN Number	
14.2 Land Road / Railway	
14.21 ADR/RID Class	Chemicals N. O. S. (non regulated)
14.22 ADR/RID Item Number	Chemicals N. O. S. (non regulated)
14.3 Inland Waterways	
14.31 ADNR Class	Chemicals N. O. S. (non regulated)
14.4 Sea	
14.41 IMDG Class	Chemicals N. O. S. (non regulated)
14.42 IMDG Page Number	Chemicals N. O. S. (non regulated)
14.5 Air	
14.51 IATA-DGR Class	Chemicals N. O. S. (non regulated)
14.6 National Transport Regulations	Chemicals N. O. S. (non regulated)

15. REGULATORY INFORMATION	
15.1 EEC Regulations	This product is not classified as dangerous according to the EEC directive
15.2 Others	According to available data, fatty alcohol is not a dangerous chemical. One should, however, observe the usual precautionary measures for dealing with chemicals according to local, state and federal regulations and requirements. R phrases = None, S phrases = None

16. OTHER INFORMATION		
16.1 REACH Pre-Registration Number	05-2115237138-49-0000	
	05-2115237306-52-0000	
16.2 Legend	Not applicable; not available	
16.3 History:		
a. Date of First Issue	July 20, 2004	
b. Date of Last Issue	July 20, 2004	
c. Date of Current Issue	May 25, 2009	Version 1.01
MSDS Prepared By	Dr. Kashinath Pandit	
MSDS Authorized By	Dr. Kashinath Pandit	

Warning: The information given in this MSDS has been compiled from sources which are considered by us as latest, accurate, and dependable. However, VVF Limited expresses no warranty or guarantee of any kind, with respect to any damages or injuries arising out of use of this material alone or other wise and the correctness of the data presented. VVF Limited assumes no responsibility, whatsoever for any injury to the recipient, user, or third person for any damages resulting from use of this product, alone or with other material.

* * * * *