VVF (India) Limited

VVF (India) Limited
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MATERIAL SAFETY DATA SHEET

Product Name : Vegarol® 1822	
Version: 2.00	Date: Sept. 25, 2012

1. CHEMICAL PRODUCT IDENTIFICATION	
1.1 Product Name	Vegarol® 1822
1.2 Common Chemical Name	Mixture of 1-octadecanol, 1-docosanol and 1-ecosanol, fatty alcohol mixture of C18 to C22 alcohol
1.3 Product Code (Supplier)	Vegarol® 1822 (Behenyl Alcohol)

2. COMPOSITION / INFORMATION ON INGREDIENTS	
2.1 Chemical Name	Fatty alcohol mixture of C18 to C22 alcohol, Blend of Octadecan-1-ol, icosan-1-ol and docosan-1-ol
2.2 % Compound	100
2.3 CAS Number	112–92–5; 629-96-9 & 661-19-8
2.4 EINECS Number	204–017–6, 211-119-4 & 211-546-6

3. HAZARD IDENTIFICATION	
3.1 Environmental Hazards	None Identified
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 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 eyes

5. FIRE FIGHTING MEASURES	
	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 chemicals safety goggles, respirators, rubber boots and full protective clothing covering the 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 product absorbed into a suitable container and dispose. Prevent entry of product into drains and ground water
6.3 Clean Up Method	Collect in dry earth, sand. Transfer to container for disposal. wash affected area with water

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	Stainless steel Iso-tanks, HDPE laminated bags with liners for pastiles
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	Safety shower, uniform, apron and rubber boots. Take shower if the product come in contact with skin.
8.3 Hand Protection	Rubber gloves
8.4 Eye Protection	Safety goggles and face mask. Keep eye wash fountain ready

9. PHYSICAL AND CHEMICAL PROPERTIES	
9.1 Physical State	Solid at 30^0C
9.2 Colour	White
9.3 Odour	Practically no odour
9.4 Boiling Range	340-390
9.5 Melting Range	56^0C - 60^0C

9. PHYSICAL AND CHEMICAL PROPERTIES	
9.6 Solubility Water	Insoluble in water
9.7 Relative Density	0.80 to 0.81 at 65^0C
9.8 Solubility Oil and Solvents	Not available
9.9 Vapour Density (Air = 1)	Not available
9.10 Vapour Pressure, mm of Hg	< 10 mm, at 22^0C
9.11 Flash Point	Approximately 204^0C
9.12. Average Molecular Weight	295-310

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	Carbon monoxide and Carbon di oxide

11. TOXICOLOGICAL INFORMATION	
11.1 Acute Toxicity	
a. Oral (LD50) (Rat)	> 2000 mg/Kg
b. Dermal (LD50) (Rabbit)	Not available
c. Inhalation (LC50)	Not available
d. Skin Irritation	Mild skin irritation
e. Eye Irritation	Mild eye irritation

12. ECOLOGICAL INFORMATION			
12.1 Comment	This product is very easily biodegradable (90%) and does not cause difficulties in waste water treatments plants. Being water insoluble and lighter than water, large amounts of contamination can be separated using typical standard oil/fats separators		
12.2 Eco-Toxicity	Fatty alcohols are not expected to show any detectable aquatic toxicity even in saturated solutions because of its extremely low water solubility. Aquatic toxicity data is reported by analogy from Octadecanol (CAS112-92-5)		
Details	Species	Exposure	Results
a. Acute / Prolonged Toxicity to Fish	Brachydanio rerio, (fresh water fish)	96 hours	LC 0 : 10000 mg/l LC50 : > 10000 mg/l
b. Acute Toxicity to Aquatic Invertebrates	Daphnia magna (Crustacea,)	48 hours	EC0 : 980 mg/l EC50 : 1666 mg/l EC100:2940 mg/l
c. Toxicity to Micro organism. MIC (Min. Inhibitory Conc.)	1. Pseudomonas Putida 2. Clostridium Botulinum 3. Pseudomonas Aeruginosa * 4. Staphylococcus Aureus *	-	1. EC0 9950 mg/l 2. MIC 0.6 mg/l 3. MIC 8 mg/l 4. MIC 10 ppm
* Internally generated data on Vegarol®1822			

13. DISPOSAL CONSIDERATIONS	
13.1 Methods of Disposal	Disposal methods to be in accordance with local, federal and

	state environmental regulations

14.TRANSPORT INFORMATION	
14.1 Land Road / Railway	
14.11 ADR/RID Class	Chemicals N. O. S. (non regulated)
14.12 ADR/RID Item Number	Chemicals N. O. S. (non regulated)
14.2 Inland Waterways	
14.21 ADNR Class	Chemicals N. O. S. (non regulated)
14.3 Sea	
14.31 IMDG Class	Chemicals N. O. S. (non regulated)
14.32 IMDG Page Number	Chemicals N. O. S. (non regulated)
14.4 Air	
14.41 IATA-DGR Class	Chemicals N. O. S. (non regulated)
14.5 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 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 no :	05-2115237417-47-0000	
	05-2115237569-36-0000	
	05-2115237792-43-0000	
16.2 Legend	N.A. =Not applicable; N.Av.= Not available	
16.3 History		
a. Date of first issue	June 24, 2005	
b. Date of last issue	May 25, 2009	
c. Date of current issue	Sept. 25, 2012	Version : 2.00
MSDS Authorised By	Dr. Kashinath Pandit	

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