



VVF (India) Limited

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SAFETY DATA SHEET

Product Name : Vegarol [®] 2270; Vegarol [®] 2280	
Version: 2.01	Date: Jan 1, 2015

1. CHEMICAL PRODUCT IDENTIFICATION

1.1 Product Name	Vegarol [®] 2270, Vegarol [®] 2280,
1.2 Common Chemical Name	1-Docosanol in blend with 1-Icosanol and 1-Octadecanol
1.3 Product Code (Supplier)	Vegarol [®] 2270, Vegarol [®] 2280; (Behenyl Alcohol)
1.4 Application of the substance / the preparation usages:	Manufacture of personal care, cosmetic preparations. Manufacture of pulp, paper and paper products. Manufacture of bulk, large scale chemicals (including petroleum products). Manufacture of fine chemicals. Manufacture of rubber products.
1.5 Manufacturer/Supplier:	VVF (India) Limited, 109, Sion (E) MUMBAI – 400022
1.6 Emergency contact details	+91-22-9619551607

2. HAZARD IDENTIFICATION

2.1 Hazards pictograms	Not applicable
2.2 Signal word	Not applicable
2.3 Hazards statements	Not applicable
2.4 Precautionary statements	Not applicable
2.5 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	Non irritant
d. Eye Contact	Non irritant
2.6 Other Hazards Result of PBT	None

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Chemical Name	Behenyl Alcohol, blend of C18 to C22 alcohol; Blend of Octadecan-1-ol, icosan-1-ol and docosan-1-ol
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Name	CAS No.	EINECS No	% by Weight	
			Vegarol 2270	Vegarol 2280
Docosan-1-ol	661-19-8	211-546-6	72 - 80	80 - 90
Eicosan-1-ol	629-96-9	211-119-4	15 - 20	10 - 20
Octadecan-1-ol	112-92-5	204-017-6	4 - 8	5.0 Max
Hexadecan-1-ol	36653-82-4	253-149-0	0.5 Max	0.5 Max
Tetracosanol	506-51-4	208-043-9	1.5 Max	2.0 Max

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 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	No particular precautions. Observe all Standard Industry Measures
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	Cover the product with dry earth or sand so that it may be absorbed. Then, transfer into a container for disposal. Flush 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 pastilles
7.4 Unsuitable Packing Material	Unlined MS drums

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 OSHA permissible exposure limit (PELs)	Not Listed
8.2 ACGIH threshold limit value (TLVs)	Not Listed
8.3 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
8.4 Skin and Body Protection	Uniform, apron and rubber boots
8.5 Hand Protection	Rubber gloves
8.6 Eye Protection	Safety goggles and face mask

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Physical State	Solid at 30 ⁰ C
9.2 Colour	White
9.3 Odour	Practically no odour
9.4 Boiling Range	360-400 ⁰ C

**9. PHYSICAL AND CHEMICAL PROPERTIES**

9.5 Melting Range	61-68 ⁰ C
9.6 Solubility Water	Insoluble in water
9.7 Relative Density	0.80 to 0.81 at 65 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	< 10 mm, at 22 ⁰ C
9.10 Flash Point	Approximately 204 ⁰ C
9.11. Average Molecular Weight	303-325

10 STABILITY AND REACTIVITY

10.1 Reactivity	Data not available
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 dioxide

11. TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity: In general the long chained aliphatic alcohols (linear and essentially linear) are of a low order of acute toxicity upon oral administration.

LD/LC50 values relevant for classification

Name	CAS No.	LD50 (Oral)	LD50 (Dermal)	LC 50(Oral) rat
1-Docosanol	661-19-8	> 10,000 mg/kg Rat > 2000 mg/kg Rat	Low toxicity expected; LD50 > 2000 Key information read across from 1-icosanol.	LC50 expected to be > 8.1 x 10 ⁻⁵ ppm(substantially saturated atmospheric concentration) DATA WAIVED
1-Eicosanol	629-96-9	> 10,000 mg/kg Rat	>16800 (rabbit)	LC50 expected to be > 0001 ppm, (substantially saturated atmospheric concentration) DATA WAIVED
1-Octadecanol	112-92-5	> 5000 mg/kg (rat) > 2000 mg/kg (rat)	> 2000 mg/kg (Key information was read across from 1- tetradecanol.)	LC50 expected to be > 0.003 ppm (substantially saturated atmospheric Concentration) DATA WAIVED.

11.2 Repeated dose toxicity : NOAEL (No observable adverse effect level):

Name	CAS no.	Species	Route	Duration	Value
1-Docosanol	661-19-8	Rat	Oral	26 Weeks	> 1000mg/kg
1-Eicosanol	629-96-9	Low systemic toxicity expected			
1-Octadecanol	112-92-5	Rat	Oral	4 weeks	> 1000mg/kg
		Rat	Diet	5 weeks	>200 mg/kg

11.3 CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Toxicity for reproduction:



Name	CAS .NO	Rat, Fertility
1-Docosanol	661-19-8	NOAEL >1000 , (Reproductive organs)
1-Eicosanol	629-96-9	Not expected to affect fertility
1-Octadecanol	112-92-5	NOAEL = 2000 mg/kg (Fertility)
C18-22 Alcohol	97552-91-5	Not expected to affect fertility (Read across substance)
11.4 Skin Irritation		Non irritant
11.5 Eye Irritation		Non irritant

12. ECOLOGICAL INFORMATION

12.1 Comment	This product is very easily biodegradable (90%) and does not cause difficulties in waste water treatment plants. Since it is insoluble in water and lighter than water, large amounts of contamination can be separated using standard oils and fats separators			
12.2 Biodegradation				
Name	CAS. NO.	Method	Result (% degradation)	
1-Docosanol	661-19-8	301B	: 87.9% in 28 days at 13.5 mg/l : 83% in 10 day window	
1-Eicosanol	629-96-9	301B	: 88.4% in 28 days at 15.6 mg/l : 83.4% in 10 day window	
1-Octadecanol	112-92-5	301D	: 38% in 29 days at 5 mg/l : 69% in 29 days at 2 mg/l : < 60% in 10 days window	
1-Octadecanol	112-92-5	301B	: 95.6% in 28 days at 14.5 mg/l : 90.2% in 10 day window	
12.3 Bioaccumulation: The data suggest that long-chain alcohols in C6-24 category are non-bioaccumulative.				
Sr.No.	Name	CAS No.	Log Kow	BCF
1	1-Eicosanol	629-96-9	7.75	1400
2	1-Octadecanol	112-92-5	7.19	2700
Bio-concentration factor (BCF) = Log Kow values above 4.5 for carbon chain length C18 and above suggest that, these long chain fatty alcohol are not bio-accumulative				
12.4 Ecotoxicological effects: Aquatic toxicity				
1-Octadecanol, (CAS No.112-92-5)				
LC ₅₀ (96 Hr)	: >0.4 (based on nominal concentration), Loading rate greater than water solubility (LoS) : Water solubility- 0.0011 mg/l at 25°C : Species – S. Gairdneri, : Method- OECD 203			
1-Docosanol (CAS No. 661-19-8)				
LC ₅₀ (96 Hr)	: > 1000 (based on nominal concentration), Loading rate greater than water solubility (LoS) : Water solubility (estimated) , approx - 0.001 mg/l : Species – Oncorhynchus mykiss, Method- OECD 203			

13. DISPOSAL CONSIDERATIONS

13.1 Methods of Disposal	Disposal methods to be in accordance with local, federal and state environmental regulations
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14. TRANSPORT INFORMATION

14.1 UN Number	Not regulated for transport.
14.2 Land Road / Railway	

**14. TRANSPORT INFORMATION**

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 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 Registration / pre-registration no (under multiple registrations)		
Docosan-1-ol	01-2119487963-20-0005	
Icosan-1-ol	05-2115237569-36-0000	
Octadecan-1-ol	01-2119485907-20-0012	
16.2 History		
a. Date of first issue	June 24, 2005	
b. Date of last issue	Sept 25, 2012	
c. Date of current issue	Jan 1, 2015	Version : 2.01
SDS Authorised By	Mr. C. R. Marathe	

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