



Section 1 – Company Information

**Parchem - fine & specialty chemicals**

**415 Huguenot Street**

**New Rochelle, NY 10801**

**(914) 654-6800** **(914) 654-6899**

**parchem.com** **info@parchem.com**

EMERGENCY RESPONSE NUMBER:

CHEMTEL - Parchem CCN# M1S0007152

Toll Free US & Canada: (800)255-3924

All other Origins: (813) 248-0585

Collect Calls Accepted

Section 2 – Product Identification/ Information on Ingredients

PRODUCT NAME Behenyl Alcohol (42 - 46%)

FORMULA  $C_nH_{(2n+1)}CH_2OH$ , wherein n is 15 - 23

PRODUCT	CAS NUMBER	% BY WEIGHT
Docosan-1-ol	661-19-8	≥ 68%
Eicosan-1-ol	629-96-9	≤ 20%
Octadecan-1-ol	112-92-5	≤ 20%
Hexadecan-1-ol	36653-82-4	≤ 2.0 %
Tetracosanol	506-51-4	≤ 2.0%

Section 3 – Hazards Identification

**Classification of the Substance or Mixture**

**Classification According to Regulation (EC) No 1272/ 2008:** Not applicable.

**Classification According to Directive 67/548/EEC or Directive 1999/45/EC:** Not applicable.

**Information Concerning Particular Hazards for Human and Environment:** Not applicable

**Labeling According to Regulation (EC) No 1272/2008**

**Hazard Pictograms:** Not applicable.

**Signal Word:** Not applicable.

**Hazard-Determining Components of Labeling:** Not applicable.

**Hazard Statements:** Not applicable.

**Labeling According to EU Guidelines:** Observe the general safety regulations when handling chemicals.



#### Section 4 – First Aid Measures

**General Information:** A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

**After Inhalation:** No dust expected in normal condition in case of dust or mist supply fresh air; consult doctor if irritation occurs.

**After Skin Contact:** Immediately take off all contaminated clothing. Gently wash with plenty of soap and water. Get medical advice if skin irritation or rash occurs.

**After Eye Contact:** Remove contact lenses, if present and easy to do. Rinse cautiously with water for several minutes. If eye irritation persists get medical attention.

**After Swallowing:** Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician in case of large quantities of this material are swallowed.

#### Section 5 – Fire Fighting Measures

**Suitable Extinguishing Agents:** Use fire extinguishing methods suitable to surrounding conditions. Dry chemical or carbon dioxide for small fires and use foam for large fires

**Protective Equipment:** Wear self-contained breathing apparatus for firefighting. If necessary use respirators and components tested and approved under appropriate government standards such as National Institute for Occupational Safety and Health (NIOSH) (US) or CEN (EU) European Committee for Standardization.

**Additional Information:** Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings remove movable containers if safe to do so. Dust if present it is potentially combustible.

#### Section 6 – Accidental Release Measures

**Person-Related Safety Precautions:** Use personal protective equipment. Keep people away from and upwind of spill/leak. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc.

**Measures for Environmental Protection:** Prevent product from entering drains, ground water.

**Measures for Cleaning/Collecting:** Pick up mechanically. Sweep dust to collect it into an airtight container, taking care not to disperse it. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations

**Additional Information:** Refer to section 8 and 13 for additional information on personal protection equipment and disposal methods.

## Section 7 – Handling & Storage

### Handling

**Information for Safe Handling:** Handling is performed in a well-ventilated place. Wear suitable protective equipment. Avoid contact with skin, eyes and clothing. Prevent dispersion of dust. Wash hands and face thoroughly after handling. Use a local exhaust if dust or aerosol will be generated.

**Information about Fire and Explosion Protection:** Protect from sources of heat, ignition and flame. Dust is potentially combustible.

### Storage

**Requirements to be met by Storerooms and Receptacles:** Install a closed system or local exhaust so that workers will not be exposed directly to dust. Also install safety shower and eye bath.

**Information about Storage in One Common Storage Facility:** Keep away from possible contact with incompatible substances such as mineral acids, source of heat and flame.

**Further Information about Storage Conditions:** Store in a cool and dark and well ventilated place. Keep containers tightly closed. Store away from incompatible materials such as oxidizing agents.

**Specific Use(s):** For bulk handling and storage follow above notes.

## Section 8 – Exposure Controls & Personal Protection

**Ingredients with Limit Values that Require Monitoring at the Workplace:** Not required.

**Personal Protective Equipment:** Immediately remove all soiled and contaminated clothing.

**General Protective and Hygienic Measures:** The usual precautionary measures are to be adhered to when handling chemicals as per general good industrial hygiene practices.

**Respiratory Protection:** Not regulated in normal operation if handling solid.

In case of dust or mist use respirators and components tested and approved under appropriate government standards such as National Institute for Occupational Safety and Health (NIOSH) (US) or CEN (EU) European Committee for Standardization.

**Protection of Hands:** The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

**Material of Gloves:** No recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer

**Penetration Time of Glove Material:** The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye Protection:** Safety glasses.

**Body protection:** Protective clothing. Protective boots, if the situation requires such as presence of mist or dust.



## Section 9 – Physical & Chemical Properties

### Appearance

**Form:** Solid (Liquid above 60°C)

**Color:** Colorless / White

**Odor:** Characteristic, mild fatty

### Change in Condition

**Melting Point/Melting Range:** 64 - 70°C

**Boiling Point/Boiling Range:** Product is expected to decompose without boiling as in the range of 335°C - 380°C

**Flash Point:** The flash point of a commercial sample of eicosan-1-ol is 176°C, and of docosan-1-ol is 210°C.

**Explosive Properties:** Not available, Study not conducted as per Reach Annex VII. Product does not contain chemical group associated with explosive property

**Oxidizing Properties:** Not available.

**Vapor Density:** Not available.

**Self-Igniting:** Approx. 256 - 257°C

**Danger of Explosion:** Product is not flammable

**Vapor Pressure (at 38°C):** The vapor pressure of a commercial sample of octadecan-1-ol is approx. 0.001 mBar (equivalent to approx. 0.1 Pa). The vapor pressure of a commercial sample of eicosan-1-ol is  $<1 \times 10^{-3}$  mBar (equivalent to 0.1 Pa). The vapor pressure of a commercial sample of docosan-1-ol is  $<0.001$  mBar (equivalent to  $<0.1$  Pa)

**Relative Density:** 0.91 (at 20°C)

**Solubility in/Miscibility with:** The water solubility, individually of octadecan-1-ol, eicosan-1-ol and docosan-1-ol is  $<1$  mg/l at 23°C.

**Viscosity (Kinematic):** The kinematic viscosity of eicosan-1-ol is 8 mm<sup>2</sup>/s and of docosan-1-ol is 9.67 mm<sup>2</sup>/s at 80°C.

**Evaporation Rate:** Not available.

**Additional Information:** The octanol-water partition coefficient of eicosan-1-ol & docosan-1-ol is 8.3 (by HPLC method).

## Section 10 – Stability & Reactivity Data

**Thermal Decomposition:** No decomposition if used according to specifications.

**Conditions to be avoided:** Sources of heat, ignition and flames.

**Materials to be avoided:** Strong acids and oxidizing agents.

**Dangerous Decomposition Products:** When heated to decomposition it emits acrid smoke and fumes, carbon monoxide, carbon dioxide, soot, aldehydes and ketones.

Section 11 – Toxicological Information

**ACUTE TOXICITY:** In general the long chained aliphatic alcohols (linear and essentially linear) is of a low order of acute toxicity upon oral administration.

**1-Docosanol**

**CAS No.:** 661-19-8

**LD50 (Oral):** > 10,000 mg/kg Rat  
> 2000 mg/kg Rat

**LD50 (Dermal):** Low toxicity expected; LD50 >

**LC 50(Oral) rat:** LC50 expected to be > 8.1 x 10<sup>-5</sup> ppm (substantially saturated atmospheric concentration) DATA WAIVED

**1-Eicosanol**

**CAS No.:** 629-96-9

**LD50 (Oral):** > 10,000 mg/kg Rat

**LD50 (Dermal):** >16800 (rabbit)

**LC 50(Oral) rat:** LC50 expected to be > 0001 ppm, (substantially saturated atmospheric concentration) DATA WAIVED

**1-Octadecanol**

**CAS No.:** 112-92-5

**LD50 (Oral):** > 5000 mg/kg (rat)  
> 2000 mg/kg (rat)

**LD50 (Dermal):** > 2000 mg/kg

**LC 50(Oral) rat:** LC50 expected to be > 0.003 ppm (substantially saturated atmospheric Concentration) DATA WAIVED.

**On the Skin:** Non irritant

**On the Eye:** Non irritant

**Sensitization:** Expected to be non-irritant

Aliphatic alcohols in the range C18 to C24 carbon chain with chain lengths of C18 and above are non-irritant to skin.

**Additional Toxicological Information:** The substance is not subject to classification according to the latest version of the EU lists.



**REPEATED DOSE TOXICITY**  
**NOAEL (No Observable Adverse Effect Level)**

**1-Docosanol**

**CAS No:** 661-19-8  
**Species:** Rat  
**Route:** Oral  
**Duration:** 26 Weeks  
**Value:** > 1000mg/kg

**1-Eicosanol**

**CAS No:** 629-96-9  
**Species:** Low systemic toxicity expected  
**Route:** Low systemic toxicity expected  
**Duration:** Low systemic toxicity expected  
**Value:** Low systemic toxicity expected

**1-Octadecanol**

**CAS No:** 112-92-5  
**Species:** Rat  
**Route:** Oral  
**Duration:** 4 weeks  
**Value:** > 1000mg/kg  
**Route:** Diet  
**Duration:** 5 weeks  
**Value:** >200 mg/kg

Alcohol C18-22 (CAS No. 97552-91-5) - Low systemic toxicity expected.

**CMR EFFECTS (CARCINOGENITY, MUTAGENICITY AND TOXICITY FOR REPRODUCTION) TOXICITY FOR REPRODUCTION**

**1-Docosanol**

**CAS no.:** 661-19-8  
**Rat, Fertility:** NOAEL >1000, (Reproductive organs)

**1-Eicosanol**

**CAS no.:** 629-96-9  
**Rat, Fertility:** Not expected to affect fertility

**1-Octadecanol**

**CAS no.:** 112-92-5  
**Rat, Fertility:** NOAEL = 2000 mg/kg (Fertility)

**C18-22 Alcohol**

**CAS No:** 97552-91-5

**Rat, Fertility:** Not expected to affect fertility

**Remark:** The lack of genotoxic effect across the long chain fatty alcohol reflect that none of them are likely to be carcinogenic. Collective data indicate that C6-C24 this product is non-mutagenic. Overall, there are no concerns that the category of long chain Aliphatic Alcohols might adversely affect fertility.

Section 12 – Ecological Information

**Information about Elimination (Persistence And Degradability)**

**Ready Biodegradation Data**

**1-Docosanol**

**CAS no.:** 661-19-8

**Method:** 301B

**Result:** 87.9% in 28 days at 13.5 mg/l  
83% in 10 day window

**1-Eicosanol**

**CAS no.:** 629-96-9

**Method:** 301B

**Result:** 88.4% in 28 days at 15.6 mg/l  
83.4% in 10 day window

**1-Octadecanol**

**CAS no.:** 112-92-5

**Method:** 301D

**Result:** 38% in 29 days at 5 mg/l  
69% in 29 days at 2 mg/l  
< 60% in 10 days window

**1-Octadecanol**

**CAS no.:** 112-92-5

**Method:** 301B

**Result:** 95.6% in 28 days at 14.5 mg/l  
90.2% in 10 day window



## BEHAVIOR IN ENVIRONMENTAL SYSTEMS

**Mobility and Bioaccumulation Potential:** The data suggest that long-chain alcohols in C6-24 category are non-bioaccumulative.

**Bioaccumulation:** Bio concentration factor (BCF) =  $BCF < 2000 \text{ L/kg}$ , hence Not bioaccumulative.

**Mobility and Bioaccumulation Potential:** The data suggest that long-chain alcohols in C6-24 category are non-bioaccumulative.

### Bioaccumulation

#### 1-Eicosanol

**Sr. No:** 1

**CAS No:** 629-96-9

**Log Kow:** 7.75

**BCF:** 1400

#### 1-Octadecanol

**Sr. No:** 2

**CAS No:** 112-92-5

**Log Kow:** 7.19

**BCF:** 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

### Aerobic degradation: 1-Octadecanol (CAS no. 112-92-5)

**Method:** Sediment samples dosed with the test chemical

**% Degradation at End of Test at the End of 60 Days:** Ohio natural river sediment: 51.5% (at test substance concentration of  $336 \mu\text{g/kg}$ )

**% Degradation at End of Test at the End of 60 Days:** Great Miami natural river sediment: 71.6% (at test substance concentration of  $172 \mu\text{g/kg}$ )

### Anaerobic degradation: 1-Hexadecanol (CAS no. 36653-82-4)

**Method:** Batch test using  $^{14}\text{C}$  labeled test material

**% Degradation at End of Test:** Digester sludge fortified with activated sludge: 90% (at test substance concentration of  $1 \text{ mg/l}$ ) after 28 days

## ECOTOXICAL 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-  $0.0011 \text{ mg/l}$  at  $25^\circ\text{C}$

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

1-Docosanol (CAS No. 661-19-8), 1-Eicosanol (CAS no. 629-96-9), C18-22 Alcohol (Cas no. 97552-91-5) predicted to be non-toxic at the limit of solubility based on partition model method for invertebrate (Daphnia) for commercial products.

**Additional Ecological Information**

**General Notes:** Generally not hazardous for water

**Results of PBT and vPvB Assessment:** This product is not PBT or vPvB

Section 13 – Disposal Consideration

Dispose of product and contaminated packaging in accordance with all local, state and federal environmental control regulations.

Section 14 – Transportation Data

This product is not regulated / restricted chemical for transport.

Section 15 – Regulatory Information

**Inventory Status:** TSCA (USA), Australia, DSL (Canada), China, EINECS (EU), ENCS (Japan), Korea, PICCS (Philippines), Switzerland.

**Labeling According to Regulation (EC)**

This product is not classified as dangerous according to 67/548/EEC (DSP/DPD) and 1272/2008.

**Chemical safety assessment:** A Chemical Safety Assessment has been carried out.

**National Regulations**

**Other Regulations, Limitations and Prohibitive Regulations:** The substance is not listed as SVHC. (Substances of very high concern) according to REACH, Article 57

Section 16 – Other Information

Disclaimer

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.