

BioSensory, Inc.

Conceal[®] Candles

Version 21 Oct 2004

MATERIAL SAFETY DATA SHEET

Safety data sheet in accordance with 2001/58/EC. Trade name: Conceal[®] Candle. Print version: 21-Oct-04

Section 1: IDENTIFICATION OF THE SUBSTANCE AND COMPANY

1.1. Identification of the substance or preparation

Conceal[®] Candle

1.2. Use of the substance/preparation

For biting insect inhibition.

1.3. Company identification

BioSensory, Inc,
Windham Mills Technology Centre,
322 Main Street, Building 1, 2nd floor
Willimantic, CT 06226-3149, USA

EU Member State address:- **This information is required to complete SDS.**

1.4. Emergency telephone

PROSAR: 1-800-498 5923 (U.S. & Canada)

PROSAR: +1 651 632 6784 (Outside U.S. & Canada)

Section 2: COMPOSITION/INFORMATION ON INGREDIENTS

2.1. General description:

The product consists of a wax candle which incorporates the active ingredient.

2.3. Substances presenting a health or environmental hazard or having Community workplace exposure limits

Substance	Composition %	2.5. Identification	2.4. Classification and risk phrases attached.
Linalool	3.5%	MW 154.25; Molecular formula C ₁₀ H ₁₈ O. 3,7-dimethyl-1,6-octadien-3-ol (CAS) 3,7-dimethyl-octa-1,6-dien-3-ol (IUPAC). CAS 78-70-6 EC 201-134-4	Xi R36/38 R52
Stearic acid	0.5%	MW 284.49; Molecular formula C ₁₈ H ₃₆ O ₂ Octadecanoic acid CAS 57-11-4 EC 200-313-4	Xi R36/37/38

See Section 16 for full text of risk phrases

2.6. Chemical nature of substances whose identity is to be kept confidential: NOT APPLICABLE.

Section 3: HAZARDS IDENTIFICATION

Conceal[®] Candles are not classified as dangerous according to Directive 1999/45/EC

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Section 4: FIRST AID MEASURES

For skin or eye contact, wipe off excess wax. Wax may be softened with vegetable or mineral oil. Flush affected areas of skin thoroughly with soap and water, remove contaminated clothing/shoes/gloves while flushing. Ensure eyes are copiously rinsed with clean water for approximately 15 minutes. If ill effects observed, call physician.

If inhaled, remove to fresh air remove to fresh air at once. If breathing is difficult, get medical attention.

If swallowed, do not induce vomiting. If ill effects observed, call physician.

Wash any contaminated clothing prior to re-use.

Section 5: FIRE-FIGHTING MEASURES

Extinguish using foam, carbon dioxide or dry powder to control fire.

Fire fighters – wear self-contained breathing apparatus and protective clothing to prevent skin/eye contact.

No known explosion hazards but combustion of preparation releases oxides of carbon.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions:

Allow wax to cool before attempting clean up.

Environmental precautions:

Keep away from drains, surface and ground water and soil.

Methods for cleaning up:

Scrape or rake cooled wax from spillage with a scraper and place in closed container for disposal. Ventilate area and wash spill site after material spillage has been removed.

Section 7: HANDLING AND STORAGE

7.1. Handling

Avoid getting hot wax on body or clothing and avoid contact between skin, eyes or mouth.

7.2. Storage

Store in cool dry conditions.

7.3. Specific use(s)

For use as an inhibitory scent blocker, masking normal human scent to block mosquito kairomone sensory ability.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Exposure limit values

Not established for linalool

8.2. Exposure controls

The product is intended mainly for domestic use.

8.2.1. Occupational exposure controls:

Use engineering controls wherever possible, wearing protective clothing.

8.2.1.1. Respiratory protection.

None

8.2.1.2. Hand protection:

None

8.2.1.3. Eye protection:

None

8.2.1.4. Skin protection:

None

8.2.2. Environmental exposure controls

Keep away from drains, surface and ground water and soil.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. General information

Appearance: The product is a candle.
Odour: Mild floral odour.

9.2. Important health, safety and environmental information.

pH:	not applicable
Melting point:	approx. 60°C
Boiling point:	not applicable
Flash point:	210°C
Explosive properties:	Not explosive
Oxidising properties:	Not oxidising
Vapour pressure (linalool):	21Pa at 25°C
Specific gravity:	approx. 0.8 g/cm ³
Solubility:	
Water solubility:	Virtually insoluble
Solvents	soluble in non polar solvents
Partition coefficient (linalool):	K _{ow} = 2.97 (n-octanol/water)

Section 10: STABILITY AND REACTIVITY

10.1. Conditions to avoid

Preparation is stable under normal physical conditions.

10.2. Materials to avoid

None known

10.3. Hazardous decomposition products

No known hazardous materials are produced on decomposition other than oxides of carbon will be released on combustion of the preparation during normal use.

Section 11: TOXICOLOGICAL INFORMATION

The major ingredient in the preparation is paraffin wax which is generally recognised as biologically inert and not systematically toxic. No specific toxicity data is available.

High concentrations of wax fumes may cause irritation to the skin and eyes.

Experiences with human beings:

Linalool, the active ingredient is accepted by Council of Europe for use in foods as an artificial flavouring – considered Generally Recognised as Safe (GRAS) by US Food and Drug Administration. Approved in Europe for use as artificial flavouring in foodstuffs with an acceptable daily intake value of 0.25 mg/kg. Linalool is also used in fragrances, detergents and soaps up to a level of 1.5%; there has been no evidence to date for ocular or respiratory effects arising from perfume evaporation, no evidence to indicate any carcinogenic hazard.

Section 12: ECOLOGICAL INFORMATION

12.1. Ecotoxicity

The major ingredient in the preparation is paraffin wax which is insoluble in water and is recognised as having no effects on aquatic organisms. No specific ecotoxicity data is available.

The active ingredient, linalool, is naturally occurring and found in soil and water with no negative effects on micro organisms. Linalool volatilises from water surface with a half-life of 2.4 days in rivers, not persisting long enough to cause chronic effects in fish; sediment concentrations remain low. Linalool is naturally present in numerous terrestrial plants and there is no evidence that direct application to plants has any adverse effects.

12.2. Mobility

Paraffin wax is considered immobile in soil. The K_{oc} of linalool in soil is estimated to be 75 and is expected to be highly mobile in soil.

12.3. Persistence and degradability

Paraffin wax in massive form is considered persistent and not biodegradable

Linalool is a naturally occurring alcohol, ubiquitous in plants and environment. Half-life in air expected to be 3.8 hours. Linalool is not expected to adsorb strongly to sediment.

12.4. Bioaccumulative potential

Linalool has a low potential to bioaccumulate.

12.5. Other adverse effects

Not known.

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Section 13: DISPOSAL CONSIDERATIONS

The material should be discarded in accordance with local and national regulations. Incineration or disposal in local landfill is appropriate.

Section 14: TRANSPORT INFORMATION

Paraffin waxes are not regulated for transportation

14.1 Road transport

14.1.1 ADR:- Not classified

14.1.2 RID:- Not classified

14.2 Inland waterways transport

14.2.1 ADNR:- Not classified

14.3 Marine transport

14.3.1 IMDG/UN:- Not classified

14.4 Air transport

14.4.1 ICAO/IATA-DGR:- Not classified

Section 15: REGULATORY INFORMATION

Conceal candles require no labelling in accordance with EC Directive 2001/59/EC:

Section 16: OTHER INFORMATION

The information given in this data sheet is only concerned with the chemical safety of Conceal candles. Since the product is intended to be ignited and allowed to melt under its own heat generation, users should make the appropriate assessment of hazard and risk associated with hot wax and naked flames.

Risk phrases used in this document

R36/38 Irritating to eyes and skin

R52 Harmful to aquatic organisms

The information presented in this data sheet is believed to be correct based on our present state of knowledge but does not purport to be all inclusive and shall be used only as a guide. It should not therefore be construed as guaranteeing specific properties of the product described or its suitability for a particular application and cannot be cited as a base for contractual agreements. BioSensory Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

The user of the product is responsible for observance of or compliance with existing laws and directives.