Material Safety Data Sheet

Lanolin
sc-215228

Hazard Alert Code Key: EXTREME HIGH MODERATE LOW

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME
Lanolin

STATEMENT OF HAZARDOUS NATURE
Not considered a hazardous substance according to OSHA 29 CFR 1910.1200.

NFPA

SUPPLIER
Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, California 95060
800.457.3801 or 831.457.3800

EMERGENCY:
ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255
(1-800-CHEMCALL) or call +613 9573 3112

SYNONYMS
"wool fat", wool-grease, wool-wax, oesipos, agnin, alapurin, agnolin, lanum, lanain, lanalin, lanesin, lanichol, laniol, "David Craig Wool Fat Anhydrous", 24/R2325

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS

<table>
<thead>
<tr>
<th></th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flammability:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Toxicity:</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Body Contact:</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Reactivity:</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Chronic:</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

CANADIAN WHMIS SYMBOLS
None

EMERGENCY OVERVIEW
RISK

POTENTIAL HEALTH EFFECTS
ACUTE HEALTH EFFECTS

SWALLOWED
■ The material has NOT been classified as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.

EYE
■ Although the material is not thought to be an irritant, direct contact with the eye may produce transient discomfort characterized by tearing or conjunctival redness (as with windburn).

SKIN
■ The material is not thought to produce adverse health effects or skin irritation following contact (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

INHALED
■ The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.
■ Not normally a hazard due to non-volatile nature of product.

CHRONIC HEALTH EFFECTS
■ Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified using animal models); nevertheless exposure by all routes should be minimized as a matter of course.
Principal routes of exposure include skin and eye contact and inhalation of hot vapours generated at point of production eg. scouring.
Very isolated cases of skin sensitisation to lanolin have been reported, this incidence of allergy being extremely low. (NIOSHIC)
The active component in the heterogeneous blend has not been identified but is thought by some to be "swint" or sheeps sweat/dandruff, inevitably extracted with the crude lanolin during processing.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>NAME</th>
<th>CAS RN</th>
<th>%</th>
</tr>
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<tbody>
<tr>
<td>lanolin</td>
<td>8006-54-0</td>
<td>&gt;95</td>
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</tbody>
</table>

Section 4 - FIRST AID MEASURES

SWALLOWED
· Immediately give a glass of water. · First aid is not generally required. If in doubt, contact a Poisons Information Center or a doctor.

EYE
■ If this product comes in contact with eyes: · Wash out immediately with water. · If irritation continues, seek medical attention.

SKIN
■ If skin or hair contact occurs: · Flush skin and hair with running water (and soap if available). · Seek medical attention in event of irritation.

INHALED
· If fumes or combustion products are inhaled remove from contaminated area. · Other measures are usually unnecessary.

NOTES TO PHYSICIAN
■ Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

<table>
<thead>
<tr>
<th>Vapour Pressure (mmHG):</th>
<th>Not available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Explosive Limit (%):</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity (water=1):</td>
<td>0.89 - 0.95</td>
</tr>
<tr>
<td>Lower Explosive Limit (%):</td>
<td>Not available</td>
</tr>
</tbody>
</table>

EXTINGUISHING MEDIA
· Foam.
· Dry chemical powder.

FIRE FIGHTING
· Alert Emergency Responders and tell them location and nature of hazard.
· Wear breathing apparatus plus protective gloves.

GENERAL FIRE HAZARDS/HAZARDOUS COMBUSTIBLE PRODUCTS
· Combustible.
· Slight fire hazard when exposed to heat or flame.
Combustion products include: carbon monoxide (CO), carbon dioxide (CO2), other pyrolysis products typical of burning organic material.
Above the flash point, may form an explosive mixture with air.

FIRE INCOMPATIBILITY
· Avoid contamination with oxidizing agents i.e. nitrates, oxidizing acids,chlorine bleaches, pool chlorine etc. as ignition may result.
PERSONAL PROTECTION

Glasses:
- Chemical goggles.

Gloves:
- Type A-P Filter of sufficient capacity

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS
- Slippery when spilt.
- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Wear impervious gloves and safety goggles.
- Trowel up/scrape up.
- Place spilled material in clean, dry, sealed container.
- Flush spill area with water.

MAJOR SPILLS
- Clear area of personnel and move upwind.
- Alert Emergency Responders and tell them location and nature of hazard.

Slippery when spilt.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING
- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.

RECOMMENDED STORAGE METHODS
- Metal can or drum
- Packing as recommended by manufacturer.

STORAGE REQUIREMENTS
- Store in original containers.
- Keep containers securely sealed.

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS
The following materials had no OELs on our records
- lanolin: CAS:8006-54-0 CAS:8020-84-6 CAS:68424-58-8

PERSONAL PROTECTION

RESPIRATOR
- Type A-P Filter of sufficient capacity
- Consult your EHS staff for recommendations

EYE
- Safety glasses with side shields
- Chemical goggles.

HANDS/FEET
- Wear general protective gloves, e.g., light weight rubber gloves.

OTHER
- No special equipment needed when handling small quantities.
- Overalls.
- Barrier cream.

ENGINEERING CONTROLS
- General exhaust is adequate under normal operating conditions. If risk of overexposure exists, wear an approved respirator.
Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL PROPERTIES

Liquid.
Does not mix with water.
Floats on water.

<table>
<thead>
<tr>
<th>State</th>
<th>Molecular Weight</th>
<th>Solubility in water (g/L)</th>
<th>Viscosity</th>
<th>pH (1% solution)</th>
<th>Not Available</th>
<th>pH (as supplied)</th>
<th>Vapour Pressure (mmHG)</th>
<th>Decomposition Temp °F</th>
<th>Vapour Component (%vol)</th>
<th>Evaporation Rate</th>
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<tr>
<td>Melting Range °F</td>
<td>100.4- 107.6</td>
<td>Immiscible</td>
<td>Not Available</td>
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<tr>
<td>Boiling Range °F</td>
<td>347 (decomposes)</td>
<td></td>
<td></td>
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<tr>
<td>Flash Point °F</td>
<td>449.6- 460.4</td>
<td>pH (1% solution)</td>
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<tr>
<td>Decomposition Temp °F</td>
<td>347</td>
<td>pH (as supplied)</td>
<td>Not applicable</td>
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<td></td>
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<tr>
<td>Autoignition Temp °F</td>
<td>833</td>
<td>Specific Gravity (water=1)</td>
<td>0.89 - 0.95</td>
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<tr>
<td>Upper Explosive Limit (%)</td>
<td>Not available</td>
<td>Relative Vapor Density (air=1)</td>
<td>Not available</td>
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APPEARANCE

Yellowish tenacious semisolid fat with a slight characteristic odour. Practically insoluble in, but mixes with about twice its weight of water, without separation. Sparingly soluble in cold, more in hot alcohol. Freely soluble in benzene, chloroform, ether, carbon disulphide, acetone and petroleum ether. The material is a fat-like secretion from the sebaceous glands of sheep which deposits directly to wool fibre. Chemically, it is a wax rather than a fat, being a complex mixture of esters and the polyesters of 33 high-molecular weight alcohols and fatty acids. The alcohols comprise aliphatics, steroids and triterpenoids; the acids comprise, saturated non-hydroxylated, unsaturated non-hydroxylated and hydroxylated types. Liquid grades are rich in low molecular branched aliphatic acids and alcohols whilst waxy lanolins are rich in high molecular weight, straight chain acids and alcohols.

Section 10 - CHEMICAL STABILITY

CONDITIONS CONTRIBUTING TO INSTABILITY
- Product is considered stable and hazardous polymerization will not occur.
- Extremely high temperatures.
- Presence of incompatible materials.

STORAGE INCOMPATIBILITY
- Avoid contamination of water, foodstuffs, feed or seed.
- Avoid reaction with oxidizing agents.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

LANOLIN

TOXICITY AND IRRITATION
LANOLIN:
- unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.
- No data of toxicological significance identified in literature search.

No data

Section 12 - ECOLOGICAL INFORMATION

No data

Section 13 - DISPOSAL CONSIDERATIONS

Disposal Instructions
All waste must be handled in accordance with local, state and federal regulations.
- Recycle wherever possible or consult manufacturer for recycling options.
- Consult Waste Management Authority for disposal.

Section 14 - TRANSPORTATION INFORMATION
Section 15 - REGULATORY INFORMATION

lanolin (CAS: 8006-54-0, 8020-84-6, 68424-58-8) is found on the following regulatory lists:
"Canada Domestic Substances List (DSL)"; "Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS (English)"; "OECD Representative List of High Production Volume (HPV) Chemicals"; "US - Pennsylvania - Hazardous Substance List"; "US - Rhode Island Hazardous Substance List"; "US Cosmetic Ingredient Review (CIR) Cosmetic ingredients found safe as used"; "US EPA High Production Volume Program Chemical List"; "US Toxic Substances Control Act (TSCA) - Inventory"; "US TSCA Section 8 (a) Inventory Update Rule (IUR) - Partial Exemptions"

Section 16 - OTHER INFORMATION

Ingredients with multiple CAS Nos
Ingredient Name CAS lanolin 8006-54-0, 8020-84-6, 68424-58-8

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Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references. A list of reference resources used to assist the committee may be found at: www.chemwatch.net/references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

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