MATERIAL SAFETY DATA SHEET

LINALYL ACETATE

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION
Product Number: Linalyl acetate, synthetic, 96%
Supplier Name & Address: Chemtex USA, Inc.
150 River Road, Suite G3B, Montville, NJ 07045-9441 USA
Emergency Phone: North America (US & Canada)
1-800-255-3924 (CHEMTEL INC.) (24 HOURS)

2. COMPOSITION, INFORMATION ON INGREDIENTS
Substance Name: Linalyl acetate, synthetic, 95-97 % (g.c)
Synonyms: Acetic acid linalool ester; 3,7-Dimethyl-1, 6-octadien-3-ol acetate; Linalool acetate; Linalool acetate; 3,7-Dimethyl-1, 6-octadien-3-yl acetate; Lincareol acetate;
CAS # : 115-95-7
Chemical Name: Linalyl acetate (ex bois de rose; synthetic)
% : 96
EINECS # : 204-116-4
Hazard Symbols : Xi
Risk Phrases : 38

3. HAZARDS IDENTIFICATION
Emergency Overview
Appearance : Clear colorless clear liquid,
Flash Point : 90 .
Warning! Combustible liquid and vapor. Irritant. May cause central nervous system depression. Causes digestive and respiratory tract irritation. Causes eye irritation. Causes severe skin irritation and possible burns.
Target Organs : Central nervous system.
Potential Health Effects
Eye: Causes eye irritation. May cause chemical conjunctivitis.
Skin: Causes severe skin irritation. Contact with skin may cause discoloration and eczema. Nervous and digestive symptoms develop from repeated skin exposure. Persons sensitive to this oil may develop photo dermatitis.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.
Inhalation: Causes respiratory tract irritation. Aspiration may lead to pulmonary edema. Can produce delayed pulmonary edema. Inhalation at high concentrations may cause CNS depression and asphyxiation.
Chronic: Effects may be delayed. Repeated skin exposure may cause nervous and digestive symptoms.

4. FIRST AID MEASURES

**Eyes**: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately.

**Skin**: Get medical aid immediately. Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.

**Ingestion**: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.

**Inhalation**: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

**Notes to Physician**: Treat symptomatically and supportively.

5. FIRE FIGHTING MEASURES

**General Information:**
As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Use water spray to keep fire-exposed containers cool. Combustible liquid. Vapors may be heavier than air. They can spread along the ground and collect in low or confined areas. Containers may explode when heated.

**Extinguishing Media:**
Use water spray to cool fire-exposed containers. This material is lighter than water and insoluble in water. The fire could easily be spread by the use of water in an area here the water cannot be contained. Use water spray, dry chemical, carbon dioxide, or appropriate foam.

**Auto ignition Temperature**: Not applicable.
**Flash Point**: 90 (194.00 F)
**Explosion Limits, lower**: Not available.
**Explosion Limits, upper**: Not available.

**NFPA Rating (estimated)**
Health: 2; Flammability: 2; Instability: 0

6. ACCIDENTAL RELEASE MEASURES
General Information : Use proper personal protective equipment as indicated in Section 8.
Spills/Leaks : Wash area with soap and water. Clean up spills immediately, observing precautions in the Protective Equipment section. Cover with sand, dry lime or soda ash and place in a closed container for disposal. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation.

7. HANDLING AND STORAGE

Handling : Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Avoid contact with heat, sparks and flame. Avoid ingestion and inhalation. Use with adequate ventilation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Do not breathe vapor.

Storage : Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Store in a cool, dry area away from incompatible substances.

8. EXPOSURE CONTROLS, PERSONAL PROTECTION

Engineering Controls : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local explosion-proof ventilation to keep airborne levels to acceptable levels.

Exposure Limits
Chemical Name : Linalyl acetate (ex bois de rose; synthetic)
ACGIH : none listed
NIOSH : none listed
OSHA - Final PELs : none listed
OSHA Vacated PELs : Linalyl acetate (ex bois de rose; synthetic): No OSHA Vacated PELs are listed for this chemical.

Personal Protective Equipment
Eyes : Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA’s eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin : Wear appropriate protective gloves to prevent skin exposure.
Clothing : Wear appropriate protective clothing to prevent skin exposure.
Respirators : A respiratory protection program that meets OSHA’s 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator’s use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State : Clear liquid
Color : Clear colorless
Odor : lavender/bergamot
pH : Not available.
Vapor Pressure : 0.0972 mm Hg @ 25
Vapor Density : 6.77
Evaporation Rate : Not available.
Viscosity : Not available.
Boiling Point : 220 @ 760.00mm Hg
Freezing/Melting Point : Not available.
Decomposition Temperature : Not available.
Solubility in water : Insoluble.
Specific Gravity/Density : 8950 g/cm³
Molecular Formula : C₁₂H₂₀O₂
Molecular Weight : 196.28

10. STABILITY AND REACTIVITY

Chemical Stability : Stable under normal temperatures and pressures.
Conditions to Avoid : Incompatible materials, ignition sources, excess heat.
Incompatibilities with Other Materials : Strong oxidizing agents.
Hazardous Decomposition Products : Carbon monoxide, carbon dioxide.
Hazardous Polymerization : Has not been reported

11. TOXICOLOGICAL INFORMATION

RTECS# : RG5910000
LD₅₀/LC₅₀: 115-95-7: Draize test, rabbit, skin: 100 mg/24H Severe; Oral, mouse: LD₅₀ = 12 gm/kg; Oral, rat: LD₅₀ = 13934 mg/kg.

Carcinogenicity:
Lynalyl acetate (ex bois de rose; synthetic) - Not listed by ACGIH, IARC, NIOSH, NTP, or OSHA.
Epidemiology : No information available.
Teratogenicity : No information available.
Reproductive Effects : No information available.
Neurotoxicity : No information available.
Mutagenicity : No information available.
Other Studies : No data available.

12. ECOLOGICAL INFORMATION

No information available.

13. DISPOSAL CONSIDERATIONS

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series : None listed.
RCRA U-Series : None listed.

14. TRANSPORT INFORMATION

US DOT
No information available
Canadian TDG
No information available.
15. REGULATORY INFORMATION

US FEDERAL
TSCA
CAS# 115-95-7 is listed on the TSCA inventory.
Health & Safety Reporting List
None of the chemicals are on the Health & Safety Reporting List.
Chemical Test Rules
None of the chemicals in this product are under a Chemical Test Rule.
Section 12b
None of the chemicals are listed under TSCA Section 12b.
TSCA Significant New Use Rule
None of the chemicals in this material have a SNUR under TSCA.
SARA
CERCLA Hazardous Substances and corresponding RQs
   None of the chemicals in this material have an RQ.
SARA Section 302 Extremely Hazardous Substances
   None of the chemicals in this product have a TPQ.
Section 313
   No chemicals are reportable under Section 313.
Clean Air Act:
   This material does not contain any hazardous air pollutants.
   This material does not contain any Class 1 Ozone depletors.
   This material does not contain any Class 2 Ozone depletors.
Clean Water Act:
   None of the chemicals in this product are listed as Hazardous Substances under the CWA.
   None of the chemicals in this product are listed as Priority Pollutants under the CWA.
   None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
OSHA:
   None of the chemicals in this product are considered highly hazardous.
STATE
   Lynalyl acetate (ex bois de rose; synthetic) is not present on state lists from CA, PA, MN, MA, FL, or NJ.
   California No Significant Risk Level: None of the chemicals in this product are listed.
   European/International Regulations
   European Labeling in Accordance with EC Directives
   Hazard Symbols: Xi
   Risk Phrases: R 38 Irritating to skin.
   Safety Phrases: S 37 Wear suitable gloves.
   WGK (Water Danger/Protection): 1
   United Kingdom Occupational Exposure Limits
   United Kingdom Maximum Exposure Limits
   Canada
   CAS# 115-95-7 is listed on Canada’s DSL List.
   This product has a WHMIS classification of B3, D2B.
   CAS# 115-95-7 is not listed on Canada’s Ingredient Disclosure List.

16. ADDITIONAL INFORMATION

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special,
indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.