

OF OTION 4

Linalyl Acetate Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 10/09/2013 Version: 1.0

	bstance/mixture and of the company/undertaking
1.1. Product identifier	
Product form	: Substance
Trade name	: Linalyl Acetate
CAS No	: 115-95-7
Product code	: L1200
Formula	: C12H20O2
Synonyms	: 1,5-dimethyl-1-vinyl-4-hexenyl acetate / 1,6-octadien-3-ol, 3,7-dimethyl-, acetate / 3,7-dimethyl- 1,6-octadien-3-ol acetate / 3,7-dimethyl-1,6-octadien-3-yl acetate / acetic acid linalool ester / bergamiol / bergamol / bergamot mint oil / ex bois de rose (synthetic) / FEMA No. 2636 / licareol acetate / linalol acetate / linalool acetate / linalyl acetate synthetic / Substances with a flash-point above 60 °C and not more than 100 °C / Substances with a flash-point above 60 °C and not more than 100 °C, which do not belong to another class
3IG no	: 30509
I.2. Relevant identified uses of the sub	ostance or mixture and uses advised against
Jse of the substance/mixture	: Odorant: raw material
I.3. Details of the supplier of the safety	
CHEMTEX USA 27-29 Dwight Place Fairfield, 07004 - USA F 862-702-8900 - F 862-702-8180 contact@chemtexusa.com - <u>www.chemtexusa</u> .	.com
1.4. Emergency telephone number	
Emergency number	: CHEMTEL:(800)255-3924
SECTION 2: Hazards identification	
2.1. Classification of the substance or	mixture
Flam. Liq. 4 H227 Skin Irrit. 2 H315 Eye Irrit. 2A H319 Aquatic Acute 3 H402 Full text of H-phrases: see section 16	
2.2. Label elements	
GHS-US labeling	
•	
Hazard pictograms (GHS-US)	
Signal word (GHS-US)	GHS07 : Warning
Signal word (GHS-US) Hazard statements (GHS-US)	
<b>3</b> ( )	<ul> <li>Warning</li> <li>H227 - Combustible liquid</li> <li>H315 - Causes skin irritation</li> <li>H319 - Causes serious eye irritation</li> </ul>

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

P362 - Take off contaminated clothing and wash it before reuse P370+P378 - In case of fire: Use alcohol resistant foam, dry sand to extinguish P403+P235 - Store in a well-ventilated place. Keep cool P501 - Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste

#### 2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

3.1. Substance				
		Dreduct identifier	0/	
Name Linalyl acetate		CAS No) 115-95-7	<b>%</b> 100	Classification (GHS-US) Flam. Liq. 4, H227
(Main constituent)		(CAS NO) 115-95-7	100	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Acute 3, H402
Full text of H-phrases: see section 16				
3.2. Mixture				
Not applicable				
SECTION 4: First aid measures				
4.1. Description of first aid measured	es			
First-aid measures general	a V V V F F F	arrest: artificial respiration or oxygen with laboured breathing: half-seated. /omiting: prevent asphyxia/aspiration warming up). Keep watching the victi whysical strain. Depending on the vic nouth to an unconscious person. If y wossible).	Cardiac arrest: per Victim in shock: on n pneumonia. Preve im. Give psychologic tim's condition: doct you feel unwell, seek	nt cooling by covering the victim (no cal aid. Keep the victim calm, avoid or/hospital. Never give anything by a medical advice (show the label when
First-aid measures after inhalation	ŀ	Remove the victim into fresh air. Res Assure fresh air breathing. Allow the	victim to rest.	
First-aid measures after skin contact	ĥ	Vash immediately with lots of water. ersists. Wash with plenty of soap ar ritation occurs: Get medical advice/	nd water. Wash cont	aminated clothing before reuse. If ski
First-aid measures after eye contact	a	pply neutralizing agents. Take victir	n to an ophthalmolog	nmediately with plenty of water. Do no gist if irritation persists. Remove ng. If eye irritation persists: Get medic
First-aid measures after ingestion	( 0		loctor/medical servic	ison Information Centre ce if you feel unwell. Ingestion of large T induce vomiting. Obtain emergency
4.2. Most important symptoms and	l effects, b	oth acute and delayed		
Symptoms/injuries after skin contact	: 1	ingling/irritation of the skin. Causes	skin irritation.	
Symptoms/injuries after eye contact	: 1	rritation of the eye tissue. Causes se	erious eye irritation.	
4.3. Indication of any immediate m	edical atte	ntion and special treatment need	ed	
No additional information available				
SECTION 5: Firefighting measu	res			
5.1. Extinguishing media				
Suitable extinguishing media		Polyvalent foam. Alcohol-resistant fo Carbon dioxide. Water spray. Sand.	am. BC powder. Ca	rbon dioxide. Foam. Dry powder.
Unsuitable extinguishing media		Solid water jet ineffective as extingui	shing medium. Do n	ot use a heavy water stream.
5.2. Special hazards arising from t	he substa	nce or mixture		
Fire hazard	٦	DIRECT FIRE HAZARD. Material pre emperature above flashpoint: highe ee "Reactivity Hazard". Combustible	r fire/explosion haza	d. INDIRECT FIRE HAZARD. ard. Reactions involving a fire hazard:
06/03/2015	EN	I (English US)		2/

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

ccording to Federal Register / Vol. 77, No. 58 / Monday	y, March 26, 2012 / Rules and Regulations
Explosion hazard	<ul> <li>DIRECT EXPLOSION HAZARD. No data available on direct explosion hazard. INDIRECT EXPLOSION HAZARD. No data available on indirect explosion hazard. May form flammable/explosive vapor-air mixture.</li> </ul>
Reactivity	: Upon combustion: CO and CO2 are formed. Under confinement: reacts with organic material: risk of spontaneous ignition.
5.3. Advice for firefighters	
Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: seal off low-lying areas. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Cool tanks/drums with water spray/remove them into safety. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.
SECTION 6: Accidental release mea	
6.1. Personal precautions, protective e	quipment and emergency procedures
General measures	: Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.
6.1.1. For non-emergency personnel	
Protective equipment	: Gloves. Face-shield. Protective clothing.
Emergency procedures	: Mark the danger area. No naked flames. Wash contaminated clothes. Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	: Equip cleanup crew with proper protection.
Emergency procedures	: Ventilate area.
6.2. Environmental precautions	
Prevent entry to sewers and public waters. Noti	ify authorities if liquid enters sewers or public waters. Avoid release to the environment.
6.3. Methods and material for containm	ient and cleaning up
For containment	: Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply.
Methods for cleaning up	: Take up liquid spill into inert absorbent material, e.g.: dry sand/earth. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
6.4. Reference to other sections	
See Heading 8. Exposure controls and persona	Il protection.
SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Additional hazards when processed	: Handle empty containers with care because residual vapors are flammable. Keep away from heat/sparks/open flames/hot surfaces No smoking.
Precautions for safe handling	: Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Thoroughly clean/dry the installation before use. Keep away from naked flames/heat. At temperature > flashpoint: use spark-/explosionproof appliances. Finely divided: spark- and explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Observe normal hygiene standards. Keep container tightly closed. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No naked lights. No smoking.

Hygiene measures	: Wash thoroughly after handling.
7.2. Conditions for safe storage, includ	ling any incompatibilities
Technical measures	: Proper grounding procedures to avoid static electricity should be followed.
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Keep in fireproof place.
Incompatible products	: Strong bases. strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight. Heat sources.

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Heat-ignition	: KEEP SUBSTANCE AWAY FROM: heat sources.
Prohibitions on mixed storage	: KEEP SUBSTANCE AWAY FROM: oxidizing agents.
Storage area	: Store in a cool area. Store in a dry area. Store in a dark area. Keep out of direct sunlight. Ventilation at floor level. Meet the legal requirements.
Special rules on packaging	<ul> <li>SPECIAL REQUIREMENTS: closing. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.</li> </ul>
Packaging materials	: SUITABLE MATERIAL: glass. aluminium.
7.3. Specific end use(s)	

No additional information available

#### SECTION 8: Exposure controls/personal protection

8.1. Control paramet	ters
Linalyl Acetate (115-95-7	7)
ACGIH	Not applicable
OSHA	Not applicable

8.2. Exposure controls	
Personal protective equipment	: Avoid all unnecessary exposure.
Materials for protective clothing	: GIVE EXCELLENT RESISTANCE: No data available. GIVE GOOD RESISTANCE: No data available. GIVE LESS RESISTANCE: No data available. GIVE POOR RESISTANCE: No data available.
Hand protection	: Gloves. Wear protective gloves.
Eye protection	: Face shield. Chemical goggles or safety glasses.
Skin and body protection	: Protective clothing. Wear suitable protective clothing.
Respiratory protection	: Insufficient ventilation: wear respiratory protection. Wear approved mask.
Other information	: When using, do not eat, drink or smoke.

### **SECTION 9: Physical and chemical properties**

9.1. Information on basic physical and	d chemical properties
Physical state	: Liquid
Appearance	: Liquid.
Color	: Colourless to light yellow
Odor	: Fruity odour Floral odour
Odor threshold	: No data available
рН	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 220 °C
Flash point	: 85 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: 0.7 - 4.3 vol %
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: 0.093 hPa
Relative density	: 0.90
Relative vapor density at 20 °C	: 6
Molecular mass	: 196.29 g/mol
Solubility	<ul> <li>Poorly soluble in water. Soluble in ethanol. Soluble in ether. Soluble in oil. Soluble in diethylphthalat.</li> <li>Water: 0.46 g/100ml</li> </ul>
Log Pow	: 3.93 (Experimental value)
Log Kow	: No data available
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#### Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Auto-ignition temperature	: 225 °C
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
9.2. Other information	

Other properties

: Gas/vapour heavier than air at 20°C. Clear. Slightly volatile.

## SECTION 10: Stability and reactivity

#### 10.1. Reactivity

Upon combustion: CO and CO2 are formed. Under confinement: reacts with organic material: risk of spontaneous ignition.

#### 10.2. Chemical stability

No data available. Combustible liquid. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

#### Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.

#### 10.5. Incompatible materials

strong acids. Strong bases.

#### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

#### **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity	: Not classified
Linalyl Acetate (115-95-7)	
LD50 oral rat	13934 mg/kg (Rat)
LD50 dermal rabbit	> 5000 mg/kg (Rabbit)
ATE US (oral)	13934.000 mg/kg body weight
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.
Symptoms/injuries after skin contact	: Tingling/irritation of the skin. Causes skin irritation.
Symptoms/injuries after eye contact	: Irritation of the eye tissue. Causes serious eye irritation.

<b>SECTION 12: Ecological info</b>	mation	
12.1. Toxicity		
Ecology - air	: Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).	
Ecology - water	: Mild water pollutant (surface water). Ground water pollutant. Harmful to fishes. Harmful invertebrates (Daphnia). Harmful to algae. Harmful to aquatic life.	to
Linalyl Acetate (115-95-7)		
LC50 fish 1	11.00 mg/l (96 h; Cyprinus carpio)	
06/03/2015	EN (English US)	5/8

### Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

15.00 mg/l (48 h; Daphnia magna)
16.00 mg/l (72 h; Scenedesmus subspicatus)
Readily biodegradable in water. Forming sediments in water. Adsorbs into the soil. Ozonation in the air. Photodegradation in the air. Not established.

Linalyl Acetate (115-95-7)		
Log Pow	3.93 (Experimental value)	
Bioaccumulative potential	Not established.	
12.4. Mobility in soil		

No additional information available

#### 12.5. Other adverse effects

Other information

SECTION 12. Die

: Avoid release to the environment.

13.1. Waste treatment methods	
Waste disposal recommendations	: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Remove to an authorized incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Use appropriate containment to avoid environmental contamination. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non-hazardous waste.
Additional information	<ul> <li>Hazardous waste according to Directive 2008/98/EC. Handle empty containers with care because residual vapors are flammable.</li> </ul>
	: Avoid release to the environment.

Department of Transportation (DOT) In accordance with DOT	
Transport document description	: UN1993 Flammable liquids, n.o.s., 3, III
UN-No.(DOT)	: UN1993
Proper Shipping Name (DOT)	: Flammable liquids, n.o.s.
Transport hazard class(es) (DOT)	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Hazard labels (DOT)	: 3 - Flammable liquid
Packing group (DOT)	: III - Minor Danger

DOT Packaging Non Bulk (49 CFR 173.xxx) DOT Packaging Bulk (49 CFR 173.xxx) DOT Symbols

- : III Minor Dange
- : 203
- : 242
- : G Identifies PSN requiring a technical name

# Linalyl Acetate Safety Data Sheet according to Federal Register / Vol. 7

ccording to Federal Register / Vol. 77, No. 58 / Monday,	March 20, 2012 / Rules and Regulations
DOT Special Provisions (49 CFR 172.102)	<ul> <li>B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.</li> <li>B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.</li> <li>IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).</li> <li>T4 - 2.65 178.274(d)(2) Normal</li></ul>
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220 L
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Additional information	
Other information	: No supplementary information available.
ADR No additional information available Transport by sea No additional information available Air transport No additional information available SECTION 15: Regulatory information	
15.1. US Federal regulations	
Linalyl Acetate (115-95-7)	
Listed on the United States TSCA (Toxic Substa	ances Control Act) inventory
, , , , , , , , , , , , , , , , , , ,	
15.2. International regulations CANADA No additional information available	
EU-Regulations No additional information available	
Classification according to Regulation (EC) No Eye Irrit. 2 H319 Skin Irrit. 2 H315 Full text of H-phrases: see section 16	o. 1272/2008 [CLP]
Classification according to Directive 67/548/El Xi; R36/38	EC [DSD] or 1999/45/EC [DPD]
Full text of R-phrases: see section 16	
National regulations No additional information available	
45.0. LIC Otate nemulations	

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

#### **SECTION 16: Other information**

Other information

: None.

#### Full text of H-phrases:

Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 4	Flammable liquids Category 4
Skin Irrit. 2	Skin corrosion/irritation Category 2
H227	Combustible liquid
H315	Causes skin irritation
H319	Causes serious eye irritation
H402	Harmful to aquatic life

#### NFPA health hazard

NFPA fire hazard

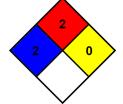
NFPA reactivity

incapacitation or possible residual injury unless prompt medical attention is given.
2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

: 0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.

: 2 - Intense or continued exposure could cause temporary



#### Disclaimer:

SDS US (GHS HazCom 2012)

150 River Road, Suite G3B, Montville, NJ 07045. Ph. # (973) 335-2500; Fax # (973) 335-2552.

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