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SECTION 1: Identification of the substance/mixture and of the company/undertaking

- · 1.1 Product identifier
- · Trade name: Odo-Clave® (Clove)
- · Article number: H13198-0000, H13199-0000
- 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- · Application of the substance / the mixture Air freshener.
- · 1.3 Details of the supplier of the Safety Data Sheet
- · Manufacturer/Supplier:

Bel-Art Products 661 Route 23 Wayne, NJ 07470 (800) 423-5278

• 1.4 Emergency telephone number: +1 (800) 457-4280

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H411.

Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H227. H227: Combustible Liquid. (General GHS and USA only)



environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.



Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

💥 Xi; Irritant

R36: Irritating to eyes.

Xi; Sensitising

R43: May cause sensitisation by skin contact.

N; Dangerous for the environment

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

The classification is in accordance with the latest editions of international substances lists, and is supplemented by information from technical literature and by information provided by the company.

· Additional information:

There are no other hazards not otherwise classified that have been identified.

0 percent of the mixture consists of component(s) of unknown toxicity

· 2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008

The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).

The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



This pictogram only applicable for EU regulations. Not for use in the United States (OSHA GHS).





GHS07 GHS09

· Signal word Warning

· Hazard-determining components of labelling:

Eugenol

clove bud oil (Eugenia spp.)

Terpenes and Terpenoids, clove-oil

Cinnamal

· Hazard statements

The following Hazard Statements are applicable only to the EU regulations and not the US GHS regulation: H411.

The following Hazard Statements are applicable only according to OSHA regulations within the United States. These Statements are not applicable for the CLP regulation (1272/2008/EC) in the EU: H227.

H227: Combustible Liquid. (General GHS and USA only)

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements

P261 Avoid breathing vapours.

P280 Wear protective gloves / eye protection.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P337+P313 If eye irritation persists: Get medical advice/attention.

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P302+P352 IF ON SKIN: Wash with plenty of water.

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P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Hazard description:
- · WHMIS-symbols:

B3 - Combustible liquid

D2B - Toxic material causing other toxic effects



· NFPA ratings (scale 0 - 4)



Health = 2Fire = 2Reactivity = 0

· HMIS-ratings (scale 0 - 4)

REACTIVITY Reactivity = 0

2 Health = 2 2 Fire = 2

· HMIS Long Term Health Hazard Substances

None of the ingredients are listed.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous component	s:	
CAS: 97-53-0	Eugenol	22-42%
EINECS: 202-589-1	x Xi R36; x Xi R43	
	◆ Eye Irrit. 2, H319; Skin Sens. 1B, H317	
CAS: 8000-34-8	clove bud oil (Eugenia spp.)	19-36%
	x Xi R36; x Xi R43	
	Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 68917-29-3	Terpenes and Terpenoids, clove-oil	10-19%
	🗙 Xn R65; 🗶 Xi R36; 🗶 Xi R43	
	Asp. Tox. 1, H304	
	Eye Irrit. 2, H319; Skin Sens. 1, H317	
		(Contd. on page 4

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	(Conto	l. of page 3)
CAS: 104-55-2	Cinnamal	4-8%
EINECS: 203-213-9	Acute Tox. 4, H312; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	
CAS: 68990-83-0	Cedarwood oil, Texas	2-4%
	Xn R65; 8 N R50/53	
	♦ Asp. Tox. 1, H304	
	Aquatic Acute 1, H400; Aquatic Chronic 1, H410	
CAS: 107-41-5	2-methylpentane-2,4-diol	1-2,5%
EINECS: 203-489-0	Xi R36/38	
Index number: 603-053-00-3	♦ Skin Irrit. 2, H315; Eye Irrit. 2, H319	

· Additional information:

For the listed ingredients, the identity and exact percentages are being withheld as a trade secret.

For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

· 4.2 Most important symptoms and effects, both acute and delayed

Allergic reactions

Irritant to eves.

- · Hazards No further relevant information available.
- · 4.3 Indication of any immediate medical attention and special treatment needed

Treat skin and mucous membrane with antihistamine and corticoid preparations.

Contains clove bud oil (Eugenia spp.), Eugenol, Terpenes and Terpenoids, clove-oil. May produce an allergic reaction.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· For safety reasons unsuitable extinguishing agents: Water with full jet

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· 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- · 5.3 Advice for firefighters
- · Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information

Cool endangered receptacles with water fog or haze.

Use large quantities of foam as it is partially destroyed by the product.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

Particular danger of slipping on leaked/spilled product.

· 6.2 Environmental precautions:

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

· 6.3 Methods and material for containment and cleaning up:

Absorb with non-combustible liquid-binding material (sand, diatomite, acid binders, universal binders).

Pick up mechanically.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Send for recovery or disposal in suitable receptacles.

6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Prevent formation of aerosols. Use

only in well ventilated areas. Avoid

contact with the eyes and skin.

- · Information about fire and explosion protection: Combustible liquid.
- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles: Provide ventilation for receptacles.
- · Information about storage in one common storage facility:

Store away from foodstuffs.

Do not store together with oxidising and acidic materials.

· Further information about storage conditions: Keep container tightly sealed.

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· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

107-41-5 2-methylpentane-2,4-diol

REL (USA) Ceiling limit: 125 mg/m³, 25 ppm TLV (USA) Ceiling limit: 121 mg/m³, 25 ppm

EL (Canada) Ceiling limit: 25 ppm

EV (Canada) Ceiling limit: 120 mg/m³, 25 ppm

- · DNELs No further relevant information available.
- · PNECs No further relevant information available.
- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· Respiratory protection:

Not required under normal conditions of use.

For spills, respiratory protection may be advisable.

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· Material of gloves

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· 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.

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· Eye protection:

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Safety glasses

- · Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment

No further relevant information available.

· Risk management measures

See Section 7 for additional information. No further relevant information available.

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form: Liquid

Colour: Amber coloured

· Odour: Pleasant

Odour threshold: Not determined.pH-value: Not determined.

· Change in condition

Melting point/Melting range:
Boiling point/Boiling range:
Undetermined.

Flash point:
Flammability (solid, gaseous):
Auto/Self-ignition temperature:
Not determined.

Not determined.

Self-igniting: Product is not self-igniting.

Danger of explosion:
 Product does not present an explosion hazard.

· Explosion limits:

Lower:
Upper:
Not determined.
Not determined.

Vapour pressure:
Not determined.

Density:
Relative density
Not determined.
Vapour density
Not determined.
Not determined.
Not determined.
Not determined.
Not determined.

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· Solubility in / Miscibility with

water: Not miscible or difficult to mix.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined. **Kinematic:** Not determined.

• **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability
- · Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

· 10.3 Possibility of hazardous reactions

Reacts with strong acids and alkali.

Reacts with strong oxidising agents.

- 10.4 Conditions to avoid Excessive heat and contact with oxidizers.
- 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:
- · LD/LC50 values relevant for classification: None.
- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: Irritating effect.
- · Sensitisation: Sensitisation possible through skin contact.
- · Subacute to chronic toxicity: No further relevant information available.
- Additional toxicological information:

Irritant

Danger through skin adsorption.

Toxic and/or corrosive effects may be delayed up to 24 hours.

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

- Acute effects (acute toxicity, irritation and corrosivity): Irritating to eyes.
- · Sensitisation: May cause an allergic skin reaction.
- · Repeated dose toxicity: Repeated exposures may result in skin and/or respiratory sensitivity.

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SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: Toxic for aquatic organisms
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- · Ecotoxical effects:
- · Remark: Toxic for fish
- · Additional ecological information:
- · General notes:

Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water Do not allow product to reach ground water, water course or sewage system, even in small quantities. Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

Due to available data on eliminability/decomposition and bioaccumulation potential prolonged term damage of the environment can not be excluded.

- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations.

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

- · 14.1 UN-Number
- · DOT

Not Regulated

Classified as combustible under US DOT regulations. Labeling required for single packages ≥ 119 US gal

450 L to include Combustible symbol and Proper Shipping Name.

Product is additionally classified as a MARINE POLLUTANT based on MARPOL and DOT rules.

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Labeling as a MARINE POLLUTANT is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than

400kg (882 pounds) for a solid. UN3082

· ADR, IMDG, IATA

· 14.2 UN proper shipping name



Limited Quantity for packages less than 30 kg (66 lb) and inner packagings less than 5 L (1.3 gal).

· **DOT** Not Regulated

· ADR 3082 ENVIRONMENTALLY HAZARDOUS

SUBSTANCE, LIQUID, N.O.S. (Cedarwood oil, Texas)

• IMDG

ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (Cedarwood oil, Texas), MARINE

POLLUTANT

• IATA ENVIRONMENTALLY HAZARDOUS SUBSTANCE,

LIQUID, N.O.S. (Cedarwood oil, Texas)

· 14.3 Transport hazard class(es)

· DOT

· Class Not Regulated

· ADR



· Class 9 (M6) Miscellaneous dangerous substances and

9

articles.

· Label

· IMDG, IATA



• Class 9 Miscellaneous dangerous substances and articles.

· Label

· 14.4 Packing group

· DOT

· ADR, IMDG, IATA

• 14.5 Environmental hazards: Product contains environmentally hazardous

Not Regulated

substances: Cedarwood oil, Texas

· Marine pollutant: Yes

Symbol (fish and tree)

• Special marking (ADR): Symbol (fish and tree)

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· Special marking (IATA): Symbol (fish and tree)

• 14.6 Special precautions for user Warning: Miscellaneous dangerous substances and

articles.

Danger code (Kemler):EMS Number:90F-A,S-F

· 14.7 Transport in bulk according to Annex II of

MARPOL73/78 and the IBC Code Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ) 5L

· Excepted quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

• Transport category 3
• Tunnel restriction code E

· IMDG

· Limited quantities (LQ) 5L

· Excepted quantities (EQ) Code: E1

Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml UN3082, ENVIRONMENTALLY HAZARDOUS

• UN "Model Regulation":

UN 3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Cedarwood oil, Texas),

III

9, III

SECTION 15: Regulatory information

- \cdot 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- United States (USA)
- ·SARA
- · Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients are listed.

· TSCA (Toxic Substances Control Act):

All ingredients are listed.

- · Proposition 65 (California):
- · Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

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(Contd. of page 11) · Chemicals known to cause developmental toxicity: None of the ingredients are listed. · Carcinogenic Categories · EPA (Environmental Protection Agency) None of the ingredients are listed. IARC (International Agency for Research on Cancer) 97-53-0 Eugenol 3 · TLV (Threshold Limit Value established by ACGIH) None of the ingredients are listed. · NIOSH-Ca (National Institute for Occupational Safety and Health) None of the ingredients are listed. · Canada · Canadian Domestic Substances List (DSL) All ingredients are listed. · Canadian Ingredient Disclosure list (limit 0.1%) 104-55-2 Cinnamal · Canadian Ingredient Disclosure list (limit 1%) 107-41-5 2-methylpentane-2,4-diol

· Other regulations, limitations and prohibitive regulations

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

- · Substances of very high concern (SVHC) according to REACH, Article 57
- None of the ingredients are listed.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Relevant phrases
- H304 May be fatal if swallowed and enters airways.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- R36 Irritating to eyes.
- R36/38 Irritating to eyes and skin.
- R43 May cause sensitisation by skin contact.
- R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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R65 Harmful: may cause lung damage if swallowed.

· Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1 Skin Sens. 1B: Sensitisation - Skin, Hazard Category 1B

Asp. Tox. 1: Aspiration hazard, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1 Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Čategory 1 Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2

Sources

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