



Safety Data Sheet

according to 29 CFR 1910.1200 App D (OSHA Hazard Communication Standard)

Clove Fragrance Oil

Version number: GHS 2.0

Date of compilation: 2026-08-07

SECTION 1: Identification

1.1 Product identifier

Trade name	Clove Fragrance Oil
Product SKU(s)	FR10CLO (10 mL), FR30CLO (30 mL), FR100CLO (100 mL), FR16CLO (16 fl oz)

1.2 Recommended uses

Recommended uses	General use
Restrictions on use	For external use only, not for internal use.

1.3 Details of the supplier of the safety data sheet

Name and Address	P&J Trading 990 Calle Amanecer San Clemente, CA 92673 United States
Telephone	888-614-2112
Telefax	888-634-2260
e-mail	customerservice@pandjtrading.com
Website	www.pandjtrading.com
e-mail (competent person)	customerservice@pandjtrading.com

1.4 Emergency telephone number

Emergency information service (INFOTRAC)	800-535-5053
INFOTRAC contract number	108042

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Category	Hazard class and category	Hazard statement
A.4S	skin sensitization	1	Skin Sens. 1	H317

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Signal word	warning
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Pictograms



GHS07

Hazard statements

H317	May cause an allergic skin reaction.
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Precautionary statements

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing must not be allowed out of the workplace.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P302+P352	If on skin: Wash with plenty of water.
P321	Specific treatment (see on this label).
P333+P313	If skin irritation or rash occurs: Get medical advice/attention.
P362+P364	Take off contaminated clothing and wash it before reuse.
P501	Dispose of contents/container to industrial combustion plant.

2.3 Other hazards

Results of PBT and vPvB assessment	Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0.1\%$.
Endocrine disrupting properties	Does not contain an endocrine disruptor (ED) in a concentration of $\geq 0.1\%$.
Ingredient(s) with unknown acute toxicity	0% – no components with unknown acute toxicity.

SECTION 3: Composition/information on ingredients**3.1 Substances**

Not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
CINNAMIC ALDEHYDE	CAS No 104-55-2	1 – < 5	Skin Sens. 1A / H317	
COUMARIN	CAS No 91-64-5	< 1	Acute Tox. 4 / H302; Acute Tox. 3 / H311	

3.3 Remarks

For full text of abbreviations: see SECTION 16

Trade secret	The exact percentage (concentration) of the ingredients has been withheld as a trade secret; concentration ranges are provided in accordance with 29 CFR 1910.1200 Appendix D.
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SECTION 4: First-aid measures**4.1 Description of first-aid measures**

General notes	Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.
Following inhalation	If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. Provide fresh air.
Following skin contact	Wash with plenty of soap and water.
Following eye contact	Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.
Following ingestion	Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Fire-fighting measures**5.1 Extinguishing media**

Suitable extinguishing media	Water spray, BC-powder, Carbon dioxide (CO2)
Unsuitable extinguishing media	Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products	Carbon monoxide (CO), Carbon dioxide (CO ₂)
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5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Coordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	Remove persons to safety.
For emergency responders	Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill	Covering of drains
Advice on how to clean up a spill	Wipe up with absorbent material (e.g. cloth, fleece). Collect spillage: sawdust, kieselgur (diatomite), sand, universal binder
Appropriate containment techniques	Use of adsorbent materials.
Other information relating to spills and releases	Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations	
Measures to prevent fire as well as aerosol and dust generation	Use local and general ventilation. Use only in well-ventilated areas.
Advice on general occupational hygiene	Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Packaging compatibilities	Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.
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7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection**8.1 Control parameters**

Occupational exposure limit values (Workplace Exposure Limits)	this information is not available
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8.2 Exposure controls

Appropriate engineering controls	General ventilation.
Individual protection measures (personal protective equipment)	
Eye/face protection	Wear eye/face protection.
Skin protection	
Hand protection	Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
Other protection measures	Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.
Respiratory protection	In case of inadequate ventilation wear respiratory protection.
Environmental exposure controls	Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties**9.1 Information on basic physical and chemical properties**

Physical state	liquid
Color	VERY PALE YELLOW
Odor	Comparable to standard
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	>482 °F at 969.9 hPa
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	not determined

Flash point	201 °F
Auto-ignition temperature	80.6 °F (auto-ignition temperature (liquids and gases))
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	not determined
Solubility(ies)	not determined

Partition coefficient

Partition coefficient n-octanol/water (log value)	this information is not available
Vapor pressure	0.06 hPa at 20 °C

Density and/or relative density

Density	0.9455 g / ml at 25 °C
Relative vapour density	information on this property is not available
Particle characteristics	not relevant (liquid)

9.2 Other information

Information with regard to physical hazard classes	hazard classes acc. to GHS (physical hazards): not relevant
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Other safety characteristics

Liquid content	99 %
Solid content	0.9995 %

SECTION 10: Stability and reactivity**10.1 Reactivity**

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

Oxidizers

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information**11.1 Information on toxicological effects**

Test data are not available for the complete mixture.

Classification procedure	The method for classification of the mixture is based on ingredients of the mixture (additivity formula).
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Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity	Shall not be classified as acutely toxic. GHS of the United Nations, annex 4: May be harmful if inhaled.
Skin corrosion/irritation	Shall not be classified as corrosive/irritant to skin.
Serious eye damage/eye irritation	Shall not be classified as seriously damaging to the eye or eye irritant.
Respiratory or skin sensitization	May cause an allergic skin reaction.
Germ cell mutagenicity	Shall not be classified as germ cell mutagenic.
Carcinogenicity	Shall not be classified as carcinogenic.
Reproductive toxicity	Shall not be classified as a reproductive toxicant.
Specific target organ toxicity - single exposure	Shall not be classified as a specific target organ toxicant (single exposure).
Specific target organ toxicity - repeated exposure	Shall not be classified as a specific target organ toxicant (repeated exposure).
Aspiration hazard	Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information**12.1 Toxicity**

Very toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of $\geq 0.1\%$.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) in a concentration of $\geq 0.1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations**13.1 Waste treatment methods**

Sewage disposal-relevant information	Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.
Waste treatment of containers/packages	Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

13.2 Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

SECTION 14: Transport information**14.1 UN number**

DOT	UN 3082
IMDG-Code	UN 3082
ICAO-TI	UN 3082

14.2 UN proper shipping name

DOT	Environmentally hazardous substance, liquid, n.o.s.
IMDG-Code	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
ICAO-TI	Environmentally hazardous substance, liquid, n.o.s.
Technical name (hazardous ingredients)	DIOCTYL ADIPATE, CARYOPHYLLENE B

14.3 Transport hazard class(es)

DOT	9
IMDG-Code	9
ICAO-TI	9

14.4 Packing group

DOT	III
IMDG-Code	III
ICAO-TI	III

14.5 Environmental hazards

Environmental hazards	hazardous to the aquatic environment
Environmentally hazardous substance (aquatic environment)	DIOCTYL ADIPATE, CARYOPHYLLENE B

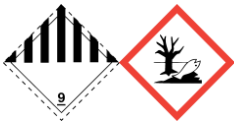
14.6 Special precautions for user

There is no additional information.

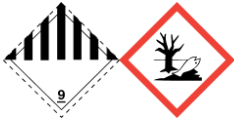
14.7 Transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

Information for each of the UN Model Regulations**Transport of dangerous goods by road or rail (49 CFR US DOT) - Additional information**

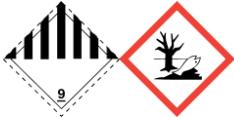
Particulars in the shipper's declaration	UN3082, Environmentally hazardous substance, liquid, n.o.s., (contains: DIOCTYL ADIPATE, CARYOPHYLLENE B), 9, III
Danger label(s)	
Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	8, 146, 173, 335, 441, IB3, T4, TP1, TP29
ERG No	171

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant	yes (hazardous to the aquatic environment) (DIOCTYL ADIPATE)
Danger label(s)	
Special provisions (SP)	274, 335, 375, 969
Excepted quantities (EQ)	E1

Limited quantities (LQ)	5 L
EmS	F-A, S-F
Stowage category	A

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Environmental hazards	yes (hazardous to the aquatic environment)
Danger label(s)	
Special provisions (SP)	A97, A158, A197, A215
Excepted quantities (EQ)	E1
Limited quantities (LQ)	30 kg

SECTION 15: Regulatory information**15.1 Safety, health and environmental regulations specific for the product in question****National regulations (United States)**

Toxic Substance Control Act (TSCA)	all ingredients are listed (ACTIVE) or exempt from listing
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Superfund Amendments and Reauthorization Act (SARA TITLE III)

The List of Extremely Hazardous Substances and Their Threshold Planning Quantities (EPCRA Section 302, 304)	none of the ingredients are listed
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Specific Toxic Chemical Listings (EPCRA Section 313)

Name of substance	CAS No	Effective date
MUSK G CONCENTRATE	1222-05-5	2022-12-31

Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA)

List of Hazardous Substances and Reportable Quantities (CERCLA section 102a) (40 CFR 302.4)	none of the ingredients are listed
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Clean Air Act

none of the ingredients are listed

Right to Know Hazardous Substance List**Cleaning Product Right to Know Act Substance List (CA-RTK)**

Name of substance	CAS No	Authoritative Lists
(2E)-3-phenylprop-2-enal	104-55-2	EU Fragrance Allergens
2H-chromen-2-one	91-64-5	EU Fragrance Allergens

Hazardous Substance List (RI-RTK)

none of the ingredients are listed

California Environmental Protection Agency (Cal/EPA): Proposition 65 - Safe Drinking Water and Toxic Enforcement Act of 1986

none of the ingredients are listed

VOC content

Regulated Volatile Organic Compounds (VOC-EPA)	14.73 %
Regulated Volatile Organic Compounds (VOC-Cal ARB)	14.73 %

Industry or sector specific available guidance(s)**NPCA-HMIS® III**

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	/	none
Health	2	temporary or minor injury may occur
Flammability	1	material that must be preheated before ignition can occur
Physical hazard	0	material that is normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosive
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	1	material that must be preheated before ignition can occur
Health	2	material that, under emergency conditions, can cause temporary incapacitation or residual injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

National inventories

Country	Inventory	Status
US	TSCA	all ingredients are listed (ACTIVE)

Legend

TSCA	Toxic Substances Control Act
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15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision**Abbreviations and acronyms**

Abbr.	Descriptions of used abbreviations
49 CFR US DOT	49 CFR U.S. Department of Transportation
Acute Tox.	Acute toxicity
Cal ARB	California Air Resources Board

Abbr.	Descriptions of used abbreviations
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
DOT	Department of Transportation (USA)
ED	Endocrine disruptor
EmS	Emergency Schedule
EPA	Environmental Protection Agency. An agency of the federal government of the United States charged with protecting human health and the environment
ERG No	Emergency Response Guidebook - Number
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
Skin Sens.	Skin sensitization
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture. Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H317	May cause an allergic skin reaction.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.