Copper Luster

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.
Issue date: 12/9/2024 Revision date: 12/9/2024 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Copper Luster

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Ceramic Decoration

1.3. Supplier

Supplier
ClayPeople Inc.
623 South 32nd St.,
Richmond, CA 94804
USA
T 510-236-1492 - F 510-236-2777
people@claypeople.net - https://claypeople.net/

1.4. Emergency telephone number

Emergency telephone number : 510 236 1492 (9am – 5pm Monday to Friday , 10am – 4pm Saturday PST)
Poison Control Center's number (1-800-222-1222)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flam. Liq. 3	Flammable liquid and vapor
Skin Irrit. 2	Causes skin irritation
Eye Dam. 1	Causes serious eye damage
Skin Sens. 1	May cause an allergic skin reaction
Carc. 2	Suspected of causing cancer
STOT SE 2	May cause damage to organs (lungs) (Inhalation)
STOT SE 3	May cause respiratory irritation
STOT RE 2	May cause damage to organs through prolonged or repeated exposure

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger
Hazard statements (GHS US) : Flammable liquid and vapor
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye damage
May cause respiratory irritation
Suspected of causing cancer

		May cause damage to organs (lungs) (Inhalation) May cause damage to organs through prolonged or repeated exposure
Precautionary statements (GHS US)	:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands, forearms and face thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. If exposed or concerned: Get medical advice/attention If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention. If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.. Immediately call a poison center or doctor. Wash contaminated clothing before reuse. Store in a well-ventilated place. Keep container tightly closed. Store locked up. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Cyclohexanol	CAS-No.: 108-93-0	10 – 18
Eucalyptus globulus, extract	CAS-No.: 84625-32-1	0 – 3
Camphor	CAS-No.: 76-22-2	0 – 3
Turpentine, oil	CAS-No.: 8006-64-2	0 – 2.8
1-Butanol, niobium(5+) salt	CAS-No.: 51030-47-8	0 – 1.8
1-Dodecanethiol	CAS-No.: 112-55-0	0 – 1
Linalool	CAS-No.: 78-70-6	0 – 1

Name	Product identifier	%
D-Limonene	CAS-No.: 5989-27-5	0 – 1
Cineole	CAS-No.: 470-82-6	0 – 1
Benzene, 1-methoxy-4-(1-propenyl)-	CAS-No.: 104-46-1	0 – 1
Eugenol	CAS-No.: 97-53-0	0 – 1
2-Pentanone, 4-methyl-	CAS-No.: 108-10-1	0 – 1
.beta.-Pinene	CAS-No.: 127-91-3	0 – 0.3

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation : If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash clothing before re-using. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

First-aid measures after ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause damage to organs (lungs, Inhalation).

Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause an allergic skin reaction.

Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.

Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Chronic symptoms : Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing media : Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapor. Products of combustion may include, and are not limited to: oxides of carbon. Irritating vapors.

Explosion hazard : May form flammable/explosive vapor-air mixture.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Move containers away from the fire area if this can be done without risk. Cool closed containers exposed to fire with water spray.

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges. Remove all sources of ignition.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Remove all sources of ignition. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.

Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal 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.

Precautions for safe handling : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust, fume, gas, mist, spray, vapors. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Ground/bond container and receiving equipment. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area. Use explosion-proof electrical/ventilating/lighting equipment.

Hygiene measures : Take off immediately all contaminated clothing and wash it before reuse. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Cyclohexanol (108-93-0)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	50 ppm
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
USA - ACGIH - Biological Exposure Indices	
BEI (BLV)	Parameter: 1,2-Cyclohexanediol with hydrolysis - Medium: urine - Sampling time: end of shift at end of workweek (nonquantitative, nonspecific) Parameter: Cyclohexanol with hydrolysis - Medium: urine - Sampling time: end of shift (nonquantitative, nonspecific)
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA	200 mg/m³
OSHA PEL TWA	50 ppm
USA - IDLH - Occupational Exposure Limits	
IDLH	400 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	200 mg/m³
NIOSH REL (TWA)	50 ppm
US-NIOSH chemical category	SK: SYS-DIR(IRR) Oct 2020

Camphor (76-22-2)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	2 ppm (synthetic)
ACGIH OEL STEL	3 ppm (synthetic)
ACGIH chemical category	Not Classifiable as a Human Carcinogen synthetic
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA	2 mg/m³
USA - IDLH - Occupational Exposure Limits	
IDLH	200 mg/m³ (synthetic)
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	2 mg/m³ (synthetic)

Turpentine, oil (8006-64-2)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	20 ppm
ACGIH chemical category	Not Classifiable as a Human Carcinogen, dermal sensitizer
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA	560 mg/m³
OSHA PEL TWA	100 ppm

Turpentine, oil (8006-64-2)	
USA - IDLH - Occupational Exposure Limits	
IDLH	800 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	560 mg/m³
NIOSH REL (TWA)	100 ppm

1-Dodecanethiol (112-55-0)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	0.1 ppm
ACGIH chemical category	dermal sensitizer
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (Ceiling)	4.1 mg/m³
NIOSH REL (Ceiling)	0.5 ppm

D-Limonene (5989-27-5)	
USA - AIHA - Occupational Exposure Limits	
WEEL TWA	30 ppm

2-Pentanone, 4-methyl- (108-10-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Methyl isobutyl ketone
ACGIH OEL TWA	20 ppm
ACGIH OEL STEL	75 ppm
Remark (ACGIH)	TLV® Basis: URT irr; dizziness; headache. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI
ACGIH chemical category	Confirmed Animal Carcinogen with Unknown Relevance to Humans
Regulatory reference	ACGIH 2021
USA - ACGIH - Biological Exposure Indices	
Local name	METHYL ISOBUTYL KETONE
BEI (BLV)	1 mg/l Parameter: MIBK - Medium: urine - Sampling time: end of shift
Regulatory reference	ACGIH 2021
USA - OSHA - Occupational Exposure Limits	
Local name	Hexone (Methyl isobutyl ketone)
OSHA PEL TWA	410 mg/m³
OSHA PEL TWA	100 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1 OSHA Annotated Table Z-1
USA - IDLH - Occupational Exposure Limits	
IDLH	500 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL (TWA)	205 mg/m³

2-Pentanone, 4-methyl- (108-10-1)	
NIOSH REL (TWA)	50 ppm
NIOSH REL (STEL)	300 mg/m³
NIOSH REL (STEL)	75 ppm

.beta.-Pinene (127-91-3)	
USA - ACGIH - Occupational Exposure Limits	
ACGIH OEL TWA	20 ppm (Turpentine and selected Monoterpenes)
ACGIH chemical category	Not Classifiable as a Human Carcinogen, dermal sensitizer

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration. Consult glove manufacturer's product information on material suitability and material thickness.

Eye protection:

Wear eye/face protection

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Brown
Odor : Aromatic
Odor threshold : No data available
pH : Product is non-polar/aprotic.
Melting point : < 10 °C (< 50 °F)
Freezing point : < 10 °C (< 50 °F)
Boiling point : > 100 °C (> 212 °F)
Flash point : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Flammability (solid, gas) : Flammable liquid and vapor.
Vapor pressure : No data available
Relative vapor density at 20°C : No data available
Relative density : 0.98
Density : 0.85 – 1.1 g/cm³

Solubility	:	Insoluble in water
Partition coefficient n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity, kinematic	:	90 mm2/s @ 30 °C (86 °F)
Viscosity, dynamic	:	No data available
Explosion limits	:	Lower explosion limit: 62 vol % Upper explosion limit: 68 vol %
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Sources of ignition. Direct sunlight. Incompatible materials.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. May release flammable gases. Irritating vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

Cyclohexanol (108-93-0)	
LD50 oral rat	2.06 g/kg (Source: JAPAN_GHS)
LD50 dermal rabbit	501 – 794 mg/kg (Source: EPA_HPV)
LC50 inhalation rat	> 3.63 mg/l/4h

Eucalyptus globulus, extract (84625-32-1)	
LD50 dermal rabbit	> 5000 mg/kg (Source: ECHA)

Camphor (76-22-2)	
LD50 oral	1310 mg/kg body weight Animal: mouse, Guideline: OECD Guideline 420 (Acute Oral Toxicity - Fixed Dose Method)
LD50 dermal rat	> 2000 mg/kg (Source: ECHA_API)
LC50 inhalation rat	0.5 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

Turpentine, oil (8006-64-2)	
LD50 oral rat	5760 mg/kg (Source: JAPAN_GHS)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
LD50 dermal rabbit	> 5010 mg/kg (Source: JAPAN_GHS)
LC50 inhalation rat	13.7 mg/l/4h

1-Dodecanethiol (112-55-0)	
LD50 oral rat	≥ 5000 mg/kg body weight Animal: rat, Animal sex: male
LD50 dermal rat	≥ 2000 mg/kg (Source: ECHA_API)
LC50 inhalation rat	≥ 7.04 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

Linalool (78-70-6)	
LD50 oral rat	2790 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2440 - 3180
LD50 oral	3120 mg/kg body weight Animal: mouse, Guideline: OECD Guideline 401 (Acute Oral Toxicity), 95% CL: 2620 - 3620
LD50 dermal rabbit	5610 mg/kg body weight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 3578 - 8374

D-Limonene (5989-27-5)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 dermal rabbit	> 5 g/kg (Source: CHEMVIEW)

Cineole (470-82-6)	
LD50 oral rat	2480 mg/kg (Source: NLM_CIP)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))

Benzene, 1-methoxy-4-(1-propenyl)- (104-46-1)	
LD50 oral rat	2090 mg/kg (Source: NLM_CIP)

Eugenol (97-53-0)	
LD50 oral rat	1930 mg/kg (Source: NZ_CCID)
LD50 oral	1500 – 1500 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)

2-Pentanone, 4-methyl- (108-10-1)	
LD50 oral rat	2080 mg/kg (Source: JAPAN_GHS)
LD50 dermal rabbit	3000 mg/kg (Source: JAPAN_GHS)

2-Pentanone, 4-methyl- (108-10-1)	
LC50 inhalation rat	11.6 mg/l air Animal: rat, Animal sex: male, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
LC50 inhalation rat	2000 – 4000 ppm/4h

.beta.-Pinene (127-91-3)	
LD50 oral rat	> 5000 mg/kg (Source: EPA_HPV)
LD50 dermal rabbit	> 5000 mg/kg (Source: CHEMVIEW)

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitization : May cause an allergic skin reaction.
Germ cell mutagenicity : Not classified
Carcinogenicity : Suspected of causing cancer.

D-Limonene (5989-27-5)	
IARC group	3 - Not classifiable
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity

Eugenol (97-53-0)	
IARC group	3 - Not classifiable

2-Pentanone, 4-methyl- (108-10-1)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	Evidence of Carcinogenicity
In OSHA Hazard Communication Carcinogen list	Yes

Reproductive toxicity : Not classified

Eucalyptus globulus, extract (84625-32-1)	
NOAEL (animal/male, F0/P)	1000 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEL (animal/female, F0/P)	300 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

1-Dodecanethiol (112-55-0)	
NOAEL (animal/male, F0/P)	250 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)

D-Limonene (5989-27-5)	
NOAEL (animal/female, F0/P)	600 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:

STOT-single exposure : May cause damage to organs (lungs) (Inhalation). May cause respiratory irritation.

Cyclohexanol (108-93-0)	
STOT-single exposure	May cause respiratory irritation.

Camphor (76-22-2)	
STOT-single exposure	May cause damage to organs (lungs) (Inhalation).

Turpentine, oil (8006-64-2)	
STOT-single exposure	May cause respiratory irritation.

1-Butanol, niobium(5+) salt (51030-47-8)	
STOT-single exposure	May cause respiratory irritation.

2-Pentanone, 4-methyl- (108-10-1)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : May cause damage to organs through prolonged or repeated exposure.

Cyclohexanol (108-93-0)	
NOAEL (oral,rat,90 days)	143 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation,rat,vapor,90 days)	2.0072 mg/l air Animal: rat, Guideline: other:

Camphor (76-22-2)	
NOAEL (oral,rat,90 days)	3.2 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (dermal,rat/rabbit,90 days)	250 mg/kg body weight Animal: rat, Guideline: other:Food and Drug Administration (FDA) Good Laboratory Practice Regulations for Nonclinical Studies (GLP Guidelines)

1-Dodecanethiol (112-55-0)	
LOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.06 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
NOAEL (oral,rat,90 days)	50 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
NOAEC (inhalation,rat,dust/mist/fume,90 days)	0.01 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Linalool (78-70-6)	
NOAEL (dermal,rat/rabbit,90 days)	250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Cineole (470-82-6)	
NOAEL (oral,rat,90 days)	600 mg/kg body weight Animal: rat, Animal sex: female, Guideline: other:japanese Ministry of Economy Trade and Industry Guideline for 28 day repeat oral dose toxicity study., Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity in Rodents), Guideline: EPA OPPTS 870.3150 (90-Day Oral Toxicity in Nonrodents)

Eugenol (97-53-0)	
NOAEL (subchronic,oral,animal/male,90 days)	≥ 900 mg/kg body weight Animal: mouse, Animal sex: male, Guideline: other:
NOAEL (subchronic,oral,animal/female,90 days)	450 mg/kg body weight Animal: mouse, Animal sex: female, Guideline: other:

2-Pentanone, 4-methyl- (108-10-1)	
LOAEL (oral,rat,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEL (oral,rat,90 days)	250 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

2-Pentanone, 4-methyl- (108-10-1)	
NOAEC (inhalation,rat,vapor,90 days)	4.106 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Aspiration hazard : Not classified
Viscosity, kinematic : No data available

Eucalyptus globulus, extract (84625-32-1)	
Viscosity, kinematic	1.79 mm²/s Temp.: '40°C' Parameter: 'kinematic viscosity (in mm²/s)'

Turpentine, oil (8006-64-2)	
Viscosity, kinematic	1.507 mm²/s

Linalool (78-70-6)	
Viscosity, kinematic	5.192 mm²/s

Eugenol (97-53-0)	
Viscosity, kinematic	7.876 mm²/s

Symptoms/effects : May cause damage to organs (lungs, Inhalation).
Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
Symptoms/effects after skin contact : Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
Symptoms/effects after ingestion : May be harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Chronic symptoms : Suspected of causing cancer. May cause damage to organs through prolonged or repeated exposure.
Other information : Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Cyclohexanol (108-93-0)	
LC50 - Fish [1]	704 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through] Source: EPA)
EC50 - Crustacea [1]	17 mg/l Test organisms (species): Daphnia magna
LC50 - Fish [2]	1033 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static] Source: EPA)
EC50 72h - Algae [1]	29.2 mg/l (Species: Desmodesmus subspicatus)
EC50 96h - Algae [1]	29 mg/l (Species: Desmodesmus subspicatus)
NOEC (chronic)	0.953 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Eucalyptus globulus, extract (84625-32-1)	
EC50 - Crustacea [1]	0.307 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	0.475 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	> 74 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)

Camphor (76-22-2)	
LC50 - Fish [1]	35 – 50 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)

Camphor (76-22-2)	
EC50 - Crustacea [1]	4.23 mg/l Test organisms (species): Daphnia magna
LC50 - Fish [2]	110 mg/l Test organisms (species): Pimephales promelas
EC50 72h - Algae [1]	0.3 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	1.71 mg/l Test organisms (species): Raphidocelis subcapitata (previous names: Pseudokirchneriella subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	6.951 mg/l Test organisms (species):

1-Dodecanethiol (112-55-0)	
LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	1 – 10 mg/l Test organisms (species): Daphnia magna

Linalool (78-70-6)	
LC50 - Fish [1]	27.8 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	59 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	88.3 mg/l (Species: Desmodesmus subspicatus)
EC50 96h - Algae [2]	156.7 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

D-Limonene (5989-27-5)	
LC50 - Fish [1]	720 µg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	0.36 mg/l Test organisms (species): Daphnia magna
LC50 - Fish [2]	35 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss Source: EPA)
EC50 - Crustacea [2]	0.51 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	≈ 8 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	0.214 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	0.115 mg/l Test organisms (species): other:For freshwater invertebrates, species frequently include Daphnia magna or Daphnia pulex. Duration: '16 d'

Cineole (470-82-6)	
LC50 - Fish [1]	57 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	> 74 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h - Algae [1]	> 74 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)

Eugenol (97-53-0)	
LC50 - Fish [1]	13 mg/l (Exposure time: 96 h - Species: Danio rerio [semi-static] Source: ECHA)
EC50 - Crustacea [1]	1.05 mg/l Test organisms (species): Daphnia magna

2-Pentanone, 4-methyl- (108-10-1)	
LC50 - Fish [1]	505 mg/l

2-Pentanone, 4-methyl- (108-10-1)	
EC50 - Crustacea [1]	1250 mg/l
EC50 96h - Algae [1]	400 mg/l (Species: Pseudokirchneriella subcapitata)
NOEC chronic fish	57 mg/l
NOEC chronic crustacea	7.8 mg/l

12.2. Persistence and degradability

Copper Luster	
Persistence and degradability	Not established.

Cyclohexanol (108-93-0)	
Persistence and degradability	Rapidly degradable

Eucalyptus globulus, extract (84625-32-1)	
Persistence and degradability	Rapidly degradable

Camphor (76-22-2)	
Persistence and degradability	Rapidly degradable

Turpentine, oil (8006-64-2)	
Persistence and degradability	Rapidly degradable

1-Butanol, niobium(5+) salt (51030-47-8)	
Persistence and degradability	Rapidly degradable

1-Dodecanethiol (112-55-0)	
Persistence and degradability	Rapidly degradable

Linalool (78-70-6)	
Persistence and degradability	Rapidly degradable

D-Limonene (5989-27-5)	
Persistence and degradability	Rapidly degradable

Cineole (470-82-6)	
Persistence and degradability	Rapidly degradable

Benzene, 1-methoxy-4-(1-propenyl)- (104-46-1)	
Persistence and degradability	Rapidly degradable

Eugenol (97-53-0)	
Persistence and degradability	Rapidly degradable

2-Pentanone, 4-methyl- (108-10-1)	
Persistence and degradability	Rapidly degradable

.beta.-Pinene (127-91-3)	
Persistence and degradability	Rapidly degradable

12.3. Bioaccumulative potential

Copper Luster	
Bioaccumulative potential	Not established.

Cyclohexanol (108-93-0)	
Partition coefficient n-octanol/water	1.25 (at 25 °C (at pH 7)

Camphor (76-22-2)	
Partition coefficient n-octanol/water	2.414 (at 25 °C)

1-Dodecanethiol (112-55-0)	
Partition coefficient n-octanol/water	> 6.5 (at 25 °C (at pH 7)

Linalool (78-70-6)	
Partition coefficient n-octanol/water	2.9 (at 20 °C (at pH 7)

D-Limonene (5989-27-5)	
Partition coefficient n-octanol/water	4.38 (at 37 °C (at pH 7.2)

Cineole (470-82-6)	
Partition coefficient n-octanol/water	3.4

Eugenol (97-53-0)	
Partition coefficient n-octanol/water	1.83 (at 30 °C (at pH 5.5)

2-Pentanone, 4-methyl- (108-10-1)	
Partition coefficient n-octanol/water	1.9 (at pH 6.7)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Additional information : Handle empty containers with care because residual vapors are flammable.

SECTION 14: Transport information

In accordance with DOT

14.1. UN number

UN-No.(DOT) : UN1993

14.2. UN proper shipping name

Proper Shipping Name (DOT) : Flammable liquids, n.o.s. (Eucalyptus globulus, extract and Turpentine, oil)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT) : 3

Hazard labels (DOT) : 3

14.4. Packing group

Packing group (DOT) : III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

DOT

UN-No.(DOT) : UN1993

DOT Special Provisions (49 CFR 172.102) : 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.
B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.
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).
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 242

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L

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.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory.

15.2. International regulations

No additional information available

15.3. US State regulations

WARNING: This product can expose you to chemicals including Methyl isobutyl ketone, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Component	State or local regulations
Cyclohexanol(108-93-0)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List
Camphor(76-22-2)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List
Turpentine, oil(8006-64-2)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Massachusetts - Right To Know List
1-Dodecanethiol(112-55-0)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List
2-Pentanone, 4-methyl-(108-10-1)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List; U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
.alpha.-Pinene(80-56-8)	U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. - Pennsylvania - RTK (Right to Know) List; U.S. - Massachusetts - Right To Know List

SECTION 16: Other information

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Issue date : 12/9/2024

Revision date : 12/9/2024

Other information : None.

Prepared by : Nexreg Compliance Inc.
www.Nexreg.com

Full text of hazard classes and H-statements	
Carc. 2	Carcinogenicity Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Flam. Liq. 3	Flammable liquids Category 3
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 2	Specific target organ toxicity (single exposure) Category 2

Full text of hazard classes and H-statements	
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Safety Data Sheet (SDS), USA - Nexreg 2023