

SAFETY DATA SHEET

Revision Date 01-Apr-2024

Revision Number 4

1. Identification

Product Name	Bright Brushing Gold
Cat No. :	12943
Synonyms	No information available
Recommended Use	Laboratory chemicals.
Uses advised against	Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757

Emergency Telephone Number

For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99
CHEMTREC Tel. No. **US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 3
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Skin Sensitization	Category 1
Specific target organ toxicity (single exposure)	Category 2
Target Organs - Respiratory system.	
Aspiration Toxicity	Category 1

Label Elements

Signal Word

Danger

Hazard Statements

Flammable liquid and vapor
May be fatal if swallowed and enters airways

Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction
May cause respiratory irritation
May cause damage to organs

**Precautionary Statements****Prevention**

Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Contaminated work clothing should not be allowed out of the workplace
Do not breathe dust/fume/gas/mist/vapors/spray
Do not eat, drink or smoke when using this product
Keep away from heat/sparks/open flames/hot surfaces. - 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

Response

If exposed or you feel unwell: Call a POISON CENTER or doctor/physician

Skin

If skin irritation or rash occurs: Get medical advice/attention

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

Ingestion

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

Do NOT induce vomiting

Fire

In case of fire: Use CO₂, dry chemical, or foam for extinction

Storage

Store locked up

Store in a well-ventilated place. Keep cool

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Toxic to aquatic life with long lasting effects

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Eucalyptus globulus, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates,	84625-32-1	37.5
Proprietary resins/waxes	N/A	21.25

Proprietary organo-gold compound	N/A	8.0
Linalool (ex bois de rose, synthetic)	78-70-6	7.5
Clove, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc.	84961-50-2	7.5
.alpha.-Pinene	80-56-8	7.5
o-Dichlorobenzene	95-50-1	2.5
Turpentine	8006-64-2	2.5
Rosemary, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, e	84604-14-8	2.5
Camphor	76-22-2	2.5
Xylenes (o-, m-, p- isomers)	1330-20-7	0.25
Isophorone	78-59-1	0.25
Benzene, 1-methoxy-4-(1-propenyl)-	104-46-1	0.25

4. First-aid measures

General Advice	If symptoms persist, call a physician.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
Skin Contact	Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.
Inhalation	Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur. Risk of serious damage to the lungs (by aspiration).
Ingestion	Clean mouth with water and drink afterwards plenty of water. Do NOT induce vomiting. Call a physician or poison control center immediately. If vomiting occurs naturally, have victim lean forward.
Most important symptoms and effects	Difficulty in breathing. May cause allergic skin reaction. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Dry sand. Carbon dioxide (CO ₂). Powder. Do not use water or foam. Water mist may be used to cool closed containers.
Unsuitable Extinguishing Media	No information available
Flash Point	33 °C / 91.4 °F
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

Carbon monoxide (CO). Carbon dioxide (CO₂). Hydrogen chloride. Gold oxide.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health
3

Flammability
2

Instability
0

Physical hazards
-

6. Accidental release measures**Personal Precautions**

Ensure adequate ventilation. Use personal protective equipment as required. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental Precautions

Should not be released into the environment. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7. Handling and storage**Handling**

Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. Take precautionary measures against static discharges.

Storage.

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks and flame. Incompatible Materials. Oxidizing agent.

8. Exposure controls / personal protection**Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
.alpha.-Pinene	TWA: 20 ppm			TWA: 20 ppm
o-Dichlorobenzene	TWA: 25 ppm STEL: 50 ppm	Ceiling: 50 ppm Ceiling: 300 mg/m ³ (Vacated) Ceiling: 50 ppm (Vacated) Ceiling: 300 mg/m ³	IDLH: 200 ppm Ceiling: 50 ppm Ceiling: 300 mg/m ³	TWA: 20 ppm STEL: 50 ppm
Turpentine	TWA: 20 ppm	(Vacated) TWA: 100 ppm (Vacated) TWA: 560 mg/m ³ TWA: 100 ppm TWA: 560 mg/m ³	IDLH: 800 ppm TWA: 100 ppm TWA: 560 mg/m ³	TWA: 20 ppm
Camphor	TWA: 2 ppm STEL: 3 ppm	(Vacated) TWA: 2 mg/m ³ TWA: 2 mg/m ³	IDLH: 200 mg/m ³ TWA: 2 mg/m ³	TWA: 2 ppm STEL: 3 ppm
Xylenes (o-, m-, p- isomers)	TWA: 20 ppm	(Vacated) TWA: 100 ppm (Vacated) TWA: 435 mg/m ³ (Vacated) STEL: 150 ppm (Vacated) STEL: 655 mg/m ³ TWA: 100 ppm TWA: 435 mg/m ³		TWA: 100 ppm STEL: 150 ppm
Isophorone	Ceiling: 5 ppm	(Vacated) TWA: 4 ppm (Vacated) TWA: 23 mg/m ³ TWA: 25 ppm TWA: 140 mg/m ³	IDLH: 200 ppm TWA: 4 ppm TWA: 23 mg/m ³	Ceiling: 5 ppm

Legend

ACGIH - American Conference of Governmental Industrial Hygienists

OSHA - Occupational Safety and Health Administration

NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures

Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment.

Personal Protective Equipment

Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended Filter type:

Organic gases and vapours filter.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Red brown
Odor	Pleasant
Odor Threshold	No information available
pH	No information available
Melting Point/Range	No data available
Boiling Point/Range	156 °C / 312.8 °F
Flash Point	33 °C / 91.4 °F
Evaporation Rate	No information available

Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	23 hPa @ 20 °C
Vapor Density	No information available
Specific Gravity	No information available
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available

10. Stability and reactivity

Reactive Hazard	None known, based on information available
Stability	Stable under normal conditions.
Conditions to Avoid	Keep away from open flames, hot surfaces and sources of ignition.
Incompatible Materials	Oxidizing agent
Hazardous Decomposition Products	Carbon monoxide (CO), Carbon dioxide (CO ₂), Hydrogen chloride, Gold oxide
Hazardous Polymerization	Hazardous polymerization does not occur.
Hazardous Reactions	None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Dermal LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Vapor LC50 Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Eucalyptus globulus, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates,	Not listed	LD50 > 5000 mg/kg (Rabbit)	Not listed
Linalool (ex bois de rose, synthetic)	LD50 = 2790 mg/kg (Rat)	LD50 = 5610 mg/kg (Rabbit)	Not listed
Clove, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc.	Not listed	LD50 = 1200 mg/kg (Rabbit)	Not listed
.alpha.-Pinene	300-2000 mg/kg (Rat)	> 5000 mg/kg (Rat)	Not listed
o-Dichlorobenzene	LD50 = 1516 mg/kg (Rat)	LD50 > 10 g/kg (Rabbit)	14,04 mg/L/4h (Rat)
Turpentine	LD50 = 5760 mg/kg (Rat)	LD50 > 5010 mg/kg (Rabbit)	LC50 = 13.7 mg/L (Rat) 4 h
Rosemary, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions,	Not listed	LD50 > 10 mL/kg (Rabbit)	Not listed

distillates, residues, e			
Camphor	1310 mg/kg (Mouse) >5 g/kg (Rat)	>2 g/kg (Rat)	Not listed
Xylenes (o-, m-, p- isomers)	LD50 = 3500 mg/kg (Rat)	LD50 > 4350 mg/kg (Rabbit)	29.08 mg/L [MOE Risk Assessment Vol.1, 2002]
Isophorone	LD50 = 1870 mg/kg (Rat)	LD50 = 1700 mg/kg (Rat)	LC50 = 7 mg/L (Rat) 4 h
Benzene, 1-methoxy-4-(1-propenyl)-	LD50 = 2090 mg/kg (Rat)	Not listed	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Eucalyptus globulus, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates,	84625-32-1	Not listed	Not listed	Not listed	Not listed	Not listed
Proprietary resins/waxes	N/A	Not listed	Not listed	Not listed	Not listed	Not listed
Proprietary organo-gold compound	N/A	Not listed	Not listed	Not listed	Not listed	Not listed
Linalool (ex bois de rose, synthetic)	78-70-6	Not listed	Not listed	Not listed	Not listed	Not listed
Clove, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc.	84961-50-2	Not listed	Not listed	Not listed	Not listed	Not listed
.alpha.-Pinene	80-56-8	Not listed	Not listed	Not listed	Not listed	Not listed
o-Dichlorobenzene	95-50-1	Not listed	Not listed	Not listed	Not listed	Not listed
Turpentine	8006-64-2	Not listed	Not listed	Not listed	Not listed	Not listed
Rosemary, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, e	84604-14-8	Not listed	Not listed	Not listed	Not listed	Not listed
Camphor	76-22-2	Not listed	Not listed	Not listed	Not listed	Not listed
Xylenes (o-, m-, p- isomers)	1330-20-7	Not listed	Not listed	Not listed	Not listed	Not listed
Isophorone	78-59-1	Group 2B	Not listed	A3	X	A3
Benzene, 1-methoxy-4-(1-propenyl)-	104-46-1	Not listed	Not listed	Not listed	Not listed	Not listed

yl)-					
ACGIH: (American Conference of Governmental Industrial Hygienists)					A1 - Known Human Carcinogen A2 - Suspected Human Carcinogen A3 - Animal Carcinogen ACGIH: (American Conference of Governmental Industrial Hygienists) Mexico - Occupational Exposure Limits - Carcinogens A1 - Confirmed Human Carcinogen A2 - Suspected Human Carcinogen A3 - Confirmed Animal Carcinogen A4 - Not Classifiable as a Human Carcinogen A5 - Not Suspected as a Human Carcinogen
Mexico - Occupational Exposure Limits - Carcinogens					
Mutagenic Effects	No information available				
Reproductive Effects	No information available.				
Developmental Effects	No information available.				
Teratogenicity	No information available.				
STOT - single exposure	Respiratory system				
STOT - repeated exposure	None known				
Aspiration hazard	No information available				
Symptoms / effects, both acute and delayed	Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing				
Endocrine Disruptor Information	No information available				
Other Adverse Effects	The toxicological properties have not been fully investigated.				

12. Ecological information

Ecotoxicity

The product contains following substances which are hazardous for the environment. May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system. Contains a substance which is: Very toxic to aquatic organisms.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Linalool (ex bois de rose, synthetic)	EC50: = 88.3 mg/L, 96h (Desmodesmus subspicatus)	LC50: = 27.8 mg/L, 96h static (Oncorhynchus mykiss)	EC50 = 1000 mg/L 30 min	EC50: = 20 mg/L, 48h (Daphnia magna)
.alpha.-Pinene	Not listed	LC50: = 0.28 mg/L, 96h static (Pimephales promelas)	Not listed	EC50 = 41 mg/L 48h
o-Dichlorobenzene	EC50: = 91.6 mg/L, 96h (Pseudokirchneriella subcapitata) EC50: 61.2 - 181 mg/L, 72h (Pseudokirchneriella subcapitata) EC50: = 2.2 mg/L, 96h static (Pseudokirchneriella subcapitata)	LC50: 4.8 - 6.6 mg/L, 96h static (Lepomis macrochirus) LC50: = 5.2 mg/L, 96h flow-through (Brachydanio rerio) LC50: 42.6 - 80.4 mg/L, 96h static (Pimephales promelas) LC50: 8.23 - 10.9 mg/L, 96h flow-through (Pimephales promelas) LC50: 1.44 - 1.73 mg/L, 96h flow-through (Oncorhynchus mykiss) LC50: = 5.8 mg/L, 96h static (Pimephales promelas)	EC50 = 4.76 mg/L 5 min EC50 = 4.98 mg/L 15 min EC50 = 5.99 mg/L 30 min	EC50: = 0.74 mg/L, 48h Static (Daphnia magna)

Xylenes (o-, m-, p- isomers)	Not listed	LC50: 30.26 - 40.75 mg/L, 96h static (Poecilia reticulata) LC50: = 780 mg/L, 96h semi-static (Cyprinus carpio) LC50: 23.53 - 29.97 mg/L, 96h static (Pimephales promelas) LC50: > 780 mg/L, 96h (Cyprinus carpio) LC50: 7.711 - 9.591 mg/L, 96h static (Lepomis macrochirus) LC50: = 19 mg/L, 96h (Lepomis macrochirus) LC50: 13.1 - 16.5 mg/L, 96h flow-through (Lepomis macrochirus) LC50: 13.5 - 17.3 mg/L, 96h (Oncorhynchus mykiss) LC50: 2.661 - 4.093 mg/L, 96h static (Oncorhynchus mykiss) LC50: = 13.4 mg/L, 96h flow-through (Pimephales promelas)	EC50 = 0.0084 mg/L 24 h	LC50: = 0.6 mg/L, 48h (Gammarus lacustris) EC50: = 3.82 mg/L, 48h (water flea)
Isophorone	EC50: 51.1 - 342 mg/L, 96h (Pseudokirchneriella subcapitata) EC50: = 475.4 mg/L, 72h (Desmodesmus subspicatus)	LC50: 132 - 159 mg/L, 96h flow-through (Pimephales promelas) LC50: 213 - 271 mg/L, 96h static (Pimephales promelas) LC50: 180 - 250 mg/L, 96h static (Lepomis macrochirus)	Not listed	EC50: = 117 mg/L, 48h (Daphnia magna)

Persistence and Degradability Immiscible with water May persist based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Is not likely mobile in the environment due its low water solubility.

Component	log Pow
Linalool (ex bois de rose, synthetic)	2.9
.alpha.-Pinene	4.1
o-Dichlorobenzene	3.433
Camphor	2.414
Xylenes (o-, m-, p- isomers)	3.15
Isophorone	1.67

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
o-Dichlorobenzene - 95-50-1	U070	-
Xylenes (o-, m-, p- isomers) - 1330-20-7	U239	-

14. Transport information

DOT

UN-No UN1993
Proper Shipping Name Flammable liquid, n.o.s.

Technical Name (Dinkum oil, alpha-PINENE)
Hazard Class 3
Packing Group III

TDG

UN-No UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard Class 3
Packing Group III

IATA

UN-No UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard Class 3
Packing Group III

IMDG/IMO

UN-No UN1993
Proper Shipping Name Flammable liquid, n.o.s.
Hazard Class 3
Packing Group III

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Eucalyptus globulus, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates,	84625-32-1	-	-	-
Proprietary resins/waxes	N/A	-	-	-
Proprietary organo-gold compound	N/A	-	-	-
Linalool (ex bois de rose, synthetic)	78-70-6	X	ACTIVE	-
Clove, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc.	84961-50-2	-	-	-
.alpha.-Pinene	80-56-8	X	ACTIVE	-
o-Dichlorobenzene	95-50-1	X	ACTIVE	T
Turpentine	8006-64-2	X	ACTIVE	-
Rosemary, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, e	84604-14-8	-	-	-
Camphor	76-22-2	X	ACTIVE	-
Xylenes (o-, m-, p- isomers)	1330-20-7	X	ACTIVE	-
Isophorone	78-59-1	X	ACTIVE	-
Benzene, 1-methoxy-4-(1-propenyl)-	104-46-1	X	ACTIVE	-

Legend:

TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

X - Listed

'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT)

Not applicable

TSCA 12(b) - Notices of Export

Not applicable

Component	CAS No	TSCA 12(b) - Notices of Export
o-Dichlorobenzene	95-50-1	Section 4

International Inventories

Canada (DSL/NDL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Eucalyptus globulus, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates,	84625-32-1	X	-	283-406-2	X	-		X	X	KE-05-0630
Proprietary resins/waxes	N/A	-	-	-	-	-		-	-	-
Proprietary organo-gold compound	N/A	-	-	-	-	-		-	-	-
Linalool (ex bois de rose, synthetic)	78-70-6	X	-	201-134-4	X	X	X	X	X	KE-11592
Clove, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc.	84961-50-2	X	-	284-638-7	X	-		X	X	-
.alpha.-Pinene	80-56-8	X	-	201-291-9	X	X	X	X	X	KE-34427
o-Dichlorobenzene	95-50-1	X	-	202-425-9	X	X	X	X	X	KE-10066
Turpentine	8006-64-2	X	-	232-350-7	X	X	X	X	X	KE-35026
Rosemary, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, e	84604-14-8	X	-	283-291-9	X	-		X	X	-
Camphor	76-22-2	X	-	200-945-0	X	X	X	X	X	KE-34423
Xylenes (o-, m-, p- isomers)	1330-20-7	X	-	215-535-7	X	X	X	X	X	KE-35427
Isophorone	78-59-1	X	-	201-126-0	X	X	X	X	X	KE-34467
Benzene, 1-methoxy-4-(1-propenyl)-	104-46-1	X	-	203-205-5	X	X	X	X	X	KE-23382

KECL - NIER number or KE number (<http://ncis.nier.go.kr/en/main.do>)

U.S. Federal Regulations**SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting thresholds
o-Dichlorobenzene	95-50-1	2.5	1.0 %	-
Xylenes (o-, m-, p- isomers)	1330-20-7	0.25	1.0 %	-

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate

classifications.

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
o-Dichlorobenzene	X	-	X	X
Xylenes (o-, m-, p- isomers)	X	100 lb	-	-
Isophorone	-	-	X	X

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Xylenes (o-, m-, p- isomers)	X		-
Isophorone	X		-

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

Component	Hazardous Substances RQs	CERCLA Extremely Hazardous Substances RQs	SARA Reportable Quantity (RQ)
o-Dichlorobenzene	100 lb	-	100 lb 45.4 kg
Xylenes (o-, m-, p- isomers)	100 lb	-	100 lb 45.4 kg
Isophorone	5000 lb	-	5000 lb 2270 kg

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
.alpha.-Pinene	X	X	X	-	-
o-Dichlorobenzene	X	X	X	-	X
Turpentine	X	X	-	-	X
Camphor	X	X	X	-	X
Xylenes (o-, m-, p- isomers)	X	X	X	X	X
Isophorone	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Eucalyptus globulus, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates,	84625-32-1	-	-	-
Proprietary resins/waxes	N/A	-	-	-
Proprietary organo-gold compound	N/A	-	-	-
Linalool (ex bois de rose, synthetic)	78-70-6	-	Use restricted. See item 75. (see link for restriction details)	-
Clove, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc.	84961-50-2	-	-	-
.alpha.-Pinene	80-56-8	-	-	-
o-Dichlorobenzene	95-50-1	-	Use restricted. See item 75. (see link for restriction details)	-
Turpentine	8006-64-2	-	Use restricted. See item 75. (see link for restriction details)	-
Rosemary, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, e	84604-14-8	-	-	-
Camphor	76-22-2	-	-	-
Xylenes (o-, m-, p- isomers)	1330-20-7	-	Use restricted. See item 75. (see link for restriction details)	-
Isophorone	78-59-1	-	Use restricted. See item 75. (see link for restriction details)	-
Benzene, 1-methoxy-4-(1-propenyl)-	104-46-1	-	-	-

REACH links

<https://echa.europa.eu/substances-restricted-under-reach>

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Eucalyptus globulus, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions,	84625-32-1	Not applicable	Not applicable	Not applicable	Not applicable

distillates,					
Proprietary resins/waxes	N/A	Not applicable	Not applicable	Not applicable	Not applicable
Proprietary organo-gold compound	N/A	Not applicable	Not applicable	Not applicable	Not applicable
Linalool (ex bois de rose, synthetic)	78-70-6	Listed	Not applicable	Not applicable	Not applicable
Clove, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc.	84961-50-2	Not applicable	Not applicable	Not applicable	Not applicable
.alpha.-Pinene	80-56-8	Listed	Not applicable	Not applicable	Not applicable
o-Dichlorobenzene	95-50-1	Listed	Not applicable	Not applicable	Not applicable
Turpentine	8006-64-2	Listed	Not applicable	Not applicable	Not applicable
Rosemary, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, e	84604-14-8	Not applicable	Not applicable	Not applicable	Not applicable
Camphor	76-22-2	Not applicable	Not applicable	Not applicable	Not applicable
Xylenes (o-, m-, p- isomers)	1330-20-7	Listed	Not applicable	Not applicable	Not applicable
Isophorone	78-59-1	Listed	Not applicable	Not applicable	Not applicable
Benzene, 1-methoxy-4-(1-propenyl)-	104-46-1	Not applicable	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?

Not applicable

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Eucalyptus globulus, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates,	84625-32-1	Not applicable	Not applicable	Not applicable	Not applicable
Proprietary resins/waxes	N/A	Not applicable	Not applicable	Not applicable	Not applicable
Proprietary organo-gold compound	N/A	Not applicable	Not applicable	Not applicable	Not applicable
Linalool (ex bois de rose, synthetic)	78-70-6	Not applicable	Not applicable	Not applicable	Not applicable
Clove, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, etc.	84961-50-2	Not applicable	Not applicable	Not applicable	Not applicable
.alpha.-Pinene	80-56-8	Not applicable	Not applicable	Not applicable	Not applicable

o-Dichlorobenzene	95-50-1	Not applicable	Not applicable	Not applicable	Annex I - Y45
Turpentine	8006-64-2	Not applicable	Not applicable	Not applicable	Not applicable
Rosemary, extract Extractives and their physically modified derivatives such as tinctures, concretes, absolutes, essential oils, oleoresins, terpenes, terpene-free fractions, distillates, residues, e	84604-14-8	Not applicable	Not applicable	Not applicable	Not applicable
Camphor	76-22-2	Not applicable	Not applicable	Not applicable	Not applicable
Xylenes (o-, m-, p- isomers)	1330-20-7	Not applicable	Not applicable	Not applicable	Annex I - Y42
Isophorone	78-59-1	Not applicable	Not applicable	Not applicable	Not applicable
Benzene, 1-methoxy-4-(1-propenyl)-	104-46-1	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By

Health, Safety and Environmental Department
Email: chem.techinfo@thermofisher.com
www.thermofisher.com

Revision Date

01-Apr-2024

Print Date

01-Apr-2024

Revision Summary

New emergency telephone response service provider.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS