



## SAFETY DATA SHEET (SDS)

**Essential Oil:** Mandarin, Yellow

**SDS Created:** 2 June 2015

**Revision Date:** August 08, 2023

### SECTION 1: IDENTIFICATION OF THE PRODUCT AND COMPANY

#### 1.1 Globally Harmonized System (GHS) product identifier

Product name: Mandarin, Yellow

Latin name of botanical source: *Citrus reticulata* Blanco

INCI name: Citrus Reticulata (Mandarin) Peel Oil

#### 1.2 Other means of identification

Item number/size: 590 – Various sizes not to exceed 33.81 Fluid Ounces or 1 Liter.

#### 1.3 Recommended use of the chemical and restrictions on use:

Aromatherapy, natural perfumery, as recommended. Do not ingest.

#### 1.4 Supplier's details:

Company name: Eden Botanicals

Company address: 3820 Cypress Drive, Suite 12, Petaluma, CA 94954

Company contact: 707-509-0041 [www.edenbotanicals.com](http://www.edenbotanicals.com)

#### 1.5 Emergency telephone number:

For Transport Emergencies Only: 1-855-645-6677 (available 9:00 am - 5:00 pm, Pacific Standard Time)

Poison Control Center: 1-800-222-1222 (available 24 hours)

### SECTION 2: HAZARD(S) IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Flammable Liquids, Category 3

Skin Corrosion/Irritation, Category 2

Skin Sensitization, Category 1

Aspiration Hazard, Category 1

Hazardous to aquatic environment Long term/Chronic, Category 1

#### 2.2 GHS label elements, including precautionary statements

Signal Word	Hazardous Statement	Precautionary Statement	Hazard Pictograms
Danger	H226 – Flammable liquid and vapour H315 – Causes skin irritation H317 – May cause an allergic skin reaction H304 – May be fatal if swallowed and enters airways H410 – Very toxic to aquatic life with long-lasting effects	P102 – Keep out of reach of children. P210 – Keep away from flames and hot surfaces. No smoking. P233 – Keep container tightly closed. P240 – Ground/Bond container and receiving equipment. P241 – Use explosion-proof electrical/ventilating/lighting equipment. P242 – Use only non-sparking tools. P243 – Take precautionary measures against static discharge. P280 – Wear protective gloves/eye protection/face protection.	

		<p>P303 + P361 + P353 – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P370 + P378 – In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.</p> <p>P403 + P235 – Store in well-ventilated place. Keep cool.</p> <p>P501 – Dispose of contents/container to an approved waste disposal plant.</p> <p>P264 –Wash hands thoroughly after handling.</p> <p>P302 + P352 – IF ON SKIN: Wash with plenty of water/soap.</p> <p>P362 + P364 – Take off contaminated clothing and wash it before reuse.</p> <p>P261 –Avoid breathing dust/fume/gas/mist/vapours/spray.</p> <p>P272 –Contaminated work clothing should not be allowed out of the workplace.</p> <p>P333 + P313 –If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P301 + P310 – IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician.</p> <p>P331 – Do NOT induce vomiting.</p> <p>P405 – Store locked up.</p> <p>P273 – Avoid release to the environment.</p> <p>P391 – Collect spillage.</p>	
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#### 2.4 Other hazards that do not result in classification

Known photosensitizer. Remove contaminated clothing, wash skin thoroughly with soap and water. Avoid exposure to sun if mandarin oil has been applied to skin in pure or diluted amounts.

### SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

#### 3.1 Composition

Chemical Name (common name)	CAS# TSCA	CAS# EINECS	ICSC#	RTECS#	UN#	EINECS#	% by weight
Mandarin Oil	8008-31-9	84929-38-4	N/A	N/A	1197	284-521-0	100%
EU Allergens:							
Citral (Geranial + Neral)	5392-40-5	N/A	N/A	N/A	N/A	N/A	0.05 – 0.15 %
Citronellol	106-22-9	N/A	N/A	N/A	N/A	N/A	0.004-0.02 %
Geraniol	106-24-1	N/A	N/A	N/A	N/A	N/A	0.002 – 0.01 %
Limonene	138-86-3	N/A	N/A	N/A	N/A	N/A	≤75 %
Linalool	78-70-6	N/A	N/A	N/A	N/A	N/A	0.05 – 0.20 %
Prop 65:							
Myrcene	123-35-3	N/A	N/A	N/A	N/A	N/A	≤1.8 %

### SECTION 4: FIRST-AID MEASURES

#### 4.1 Description of necessary first-aid measures (of Substance)

##### Eye contact:

Check for and remove any contact lenses. Immediately wash thoroughly with soft, clean water for 15 minutes while holding the eyelids open. Cold water may be used. If symptoms persist, seek medical attention.

##### Skin Contact:

Remove contaminated clothing and wash the skin thoroughly with soap and water. Watch out for any remaining product between skin and clothing, watches, shoes, etc. In the event of an allergic reaction, seek medical attention. If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to a hospital.

##### Inhalation:

If breathed in, move person to fresh air. If not breathing, give artificial respiration. Consult a physician.

##### Ingestion:

Not an expected route of exposure. In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor. Keep the exposed person at rest. Do NOT force vomiting unless directed to do so by medical personnel. Seek immediate medical attention and show the Substance's label to medical personnel.

#### 4.2 Most important symptoms and effects, both acute and delayed (of Substance)

##### Eye contact:

May cause eye irritation and corneal damage if not immediately rinsed out.

##### Skin Contact:

Known photosensitizer.

##### Inhalation:

Not specified

##### Ingestion:

Not specified

#### 4.3 Indication of any immediate medical attention and special treatment needed (of Substance)

No data available.

### SECTION 5: FIRE-FIGHTING MEASURES

#### 5.1 Flash point (Celsius/Fahrenheit)

51°C

#### 5.2 Extinguishing media

Keep packages near the fire cool, to prevent pressurized containers from bursting.

*Suitable extinguishing media:* sprayed water or water mist, alcohol-resistant foam, multipurpose ABC powder, BC powder, carbon dioxide (CO<sub>2</sub>)

*Unsuitable extinguishing media:* water jet (straight stream).

#### 5.3 Specific hazards arising from the chemical

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health. In the event of a fire, the following may be formed: carbon monoxide (CO) and carbon dioxide (CO<sub>2</sub>).

#### 5.4 Special protective actions for firefighters

Use self-contained breathing apparatus and protective clothing.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

Stop leak if you can do so without risk. Consult safety measures listed under Sections 7 and 8.

##### For non-firefighters:

Avoid any contact with the skin and eyes.

##### For firefighters:

Fire-fighters will be equipped with suitable personal protective equipment (See Section 8).

#### 6.2 Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, or diatomaceous earth in drums for waste disposal. Avoid allowing product to reach sewage system or any waterways. Inform respective authorities in case of seepage into sewage system or waterways.

#### 6.3 Methods and material for containment and cleaning up

Absorb spill with non-combustible matter (such as detergent--do not use solvents) and transfer to containers.

### SECTION 7: HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Avoid unintentional contact with skin surfaces. Wear suitable protective clothing. Ensure good ventilation or exhaust in workplace. Do not allow contact with eyes. Always wash hands after handling. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

*Fire prevention:* Handle in well-ventilated areas. Vapors are heavier than air. They can spread along the ground and form mixtures that are explosive with air. Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits. Prevent the accumulation of electrostatic charges with connections to earth. Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected. Keep packages tightly closed and away from sources of heat, sparks and naked flames. Do not use tools which may produce sparks. Do not smoke.

## 7.2 Conditions for safe storage, including any incompatibilities

Store in tight glass, aluminum, or double-lined containers in a dark, cool, or refrigerated area away from direct heat. Always keep in packaging made of an identical material to the original. The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

## SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION

### 8.1 Control parameters

OSHA TWA: None established

OSHA STEL: None established

ACGIH TWA: None established

ACGIH STEL: None established

NOHSC TWA: None established

NOHSC STEL: None established

### 8.2 Appropriate engineering controls

General room or local exhaust ventilation is usually required to meet exposure limit(s). Electrical equipment should be grounded and conform to applicable electrical code.

### 8.3 Individual protection measures

#### Personal protective equipment:

Use personal protective equipment that is clean and has been properly maintained. Store personal protective equipment in a clean place away from the work area. Never eat, drink, or smoke during use. Remove and wash contaminated clothing before re-using.

#### Eye/face protection:

Avoid contact with eyes. Use eye protectors (safety goggles in accordance with standard EN166) designed to protect against liquid splashes.

#### Hand protection:

Wear suitable protective gloves (resistant to chemical agents in accordance with standard EN374) in the event of prolonged or repeated skin contact.

Type of gloves recommended: Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR)) or PVA (Polyvinyl alcohol).

**Body protection:** Flame-retardant, antistatic protective clothing.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as back-up to engineering controls.



## SECTION 9: PHYSICAL CHEMICAL PROPERTIES

**Physical state:** Liquid. May be prone to turbidity due to naturally occurring waxes.

**Color:** Yellow to yellow-orange

**Odor:** Light, tart, zesty and refreshing citrus aroma with lemony, tangy-sweet top notes.

**Miscibility in water:** Insoluble

**Miscibility in alcohol:** Soluble

**Miscibility in essential oil:** Soluble

**Lip solubility:** Soluble

**pH:** Not applicable

**Boiling point/boiling range:** +177°C

**Flash Point:** 51°C

**Vapor pressure:** Not specified

**Evaporation rate:** Not specified

**Density:** 0.8486 – 0.8531

**Water solubility:** Insoluble

**Melting point/melting range:** Not specified

**Self-ignition temperature:** Not specified

**Decomposition point/decomposition range:** Not specified

**Refractive index @ 20°C:** 1.474 – 1.478

**Partition coefficient:** Not specified

**Specific gravity @ 20 °C:** 0.8450 – 0.8550

Viscosity: 1.010 ÷ 1.043

## SECTION 10: STABILITY AND REACTIVITY

### 10.1 Reactivity

Presents no significant reactivity hazard by itself or in contact with water.

### 10.2 Chemical stability

This substance is stable under the recommended handling and storage conditions in Section 7.

### 10.3 Possibility of hazardous reactions

Oxidizing agent acid alkali light and air condition to avoid under nitrogen surface.

### 10.4. Conditions to avoid

Heat, flames, and sparks

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

Other decomposition products – No data available

In the event of fire: See Section 5

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity:

Oral route: LD50 > 5 gr/kg (rat)

Dermal route: LD50 > 5 gr/kg (rabbit)

#### Skin corrosion/irritation:

Known Photosensitizer. May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours. May cause an allergic reaction by skin contact. See Section 3.

#### Serious eye damage/irritation:

Eye exposure to essential oils may irritate the eyes. Prompt rinsing and removal of the substance will avoid damage.

#### Respiratory or skin sensitization:

Exposure to vapors from this solvent in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system. See EU allergen list in Section 3.

#### Germ cell mutagenicity:

Not specified

#### Carcinogenicity:

IARH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

#### Reproductive toxicity:

Not specified

#### STOT-single exposure:

Not specified

#### STOT-related exposure:

Not specified

#### Aspiration hazard:

May be fatal if swallowed and enters airways. Aspiration toxicity includes severe acute effects such as chemical pneumonia, varying degrees of pulmonary injury or death following aspiration.

### 11.2 Information on the likely routes of exposure

Skin/scalp contact

### 11.3 Symptoms related to the physical, chemical, and toxicological characteristics

None known. Irritation of the eye if exposed. Redness of the skin if acting as a photosensitizer.

### 11.4 Delayed and immediate effects and also chronic effects from short-term and long-term exposure

Exposure to vapors from this solvent in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver, and central nervous system.

Repeated or prolonged contact with the substance may cause removal of natural oil from the skin, resulting in non-allergic contact dermatitis and absorption through the skin. Splashes in the eyes may cause irritation and reversible damage.

### 11.6 Interactive effects

Not specified

### 11.7 Other information

RTECS: OO6100000

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1 Info summery of Ecological information

Balance of data on substance as a whole, not determined.

### 12.2 Eco toxicological properties of specific substances

See each category below for specific substances

### 12.3 Toxicity

#### Acute fish toxicity:

LC50 / 96 HOUR – No data available

Toxicity to aquatic plants – No data available

Toxicity to microorganisms – No data available

Toxicity threshold – No data available

### 12.4 Persistence and degradability

Biodegradation is expected

### 12.5 Bio-accumulative potential

Bioaccumulation is unlikely

### 12.6 Mobility in soil

Unknown

### 12.7 Other adverse effect

Avoid exposure to marine environments and waterways

## SECTION 13: DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Do not pour into drains or waterways. Observe all federal, state, and local environmental regulations. Member State-specific and Community-specific provisions must be considered. Considering the relevant known environmental and human health hazards of the materials, review and implement appropriate technical and procedural wastewater and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental release. This may include destructive techniques for waste and wastewater. In extreme situations, contact a licensed professional waste disposal service to dispose of this material.

#### Waste:

Proper waste management of the substance and/or its container must be determined in accordance with Directive 2008/98/EC. Do not pour into drains or waterways. Waste management is carried out without endangering human health, without harming the environment, and in particular without risk to water, air, soil, plants, or animals. Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

#### Soiled packaging:

Empty all containers completely. Keep label(s) on every container. Give to a certified disposal contractor.

## SECTION 14: TRANSPORT INFORMATION

### 14.1 UN Number

UN 1197

### 14.2 UN Proper shipping name

Extracts, liquid

### 14.3 Transportation hazard classes



Class 3

### 14.4 Packing group, if applicable

PG III

#### 14.4.1 Marking requirements

Not required for retail packages

### 14.5 Environmental hazards



Environmentally hazardous material

### 14.6 Special precautions for user

N/A

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78\* and IBC Code

Not applicable

### 14.8 Additional transport information

Exceptions for class 3 CFR 49 173.150 (b) (c) (g) (Packaged for retail sale.)

## SECTION 15: REGULATORY INFORMATION

### 15.1 Safety, health, and environmental regulations/legislation specific for the substance

Country	Notification
Canada	Not regulated
EU	See EU Allergens in Section 3
Hong Kong	Not regulated
Singapore	Not regulated
USA	<b>California Prop. 65 Components</b> This product contains chemicals known to the State of California to cause cancer, birth defects, and/or reproductive harm. See Section 3 for details.

## SECTION 16: OTHER INFORMATION

### Additional Information

This essential oil is phototoxic and may cause skin irritation if skin is exposed to sun after application of the oil in pure or dilute forms. Patch test is recommended.

### Disclaimer

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Revision	Date	Prepared By	Reviewed By
R.1	June 6, 2015	K. Goelz	
R.2	June 17, 2015	H. Merrill	
R.3	November 8, 2016	MEBB	
R.4	November 15, 2016	MEBB	
R.5	October 16, 2017	MEBB	
R.6	February 2018	MEBB	
R.7	August 17, 2020	L. Bonaventura	
R.8	July 30, 2023	L. Bonaventura	
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