



Technical specification. FQ07-06.

Mandarin terpenes

Code: ES-037 CAS: 8008-31-9 FEMA: 2657

Description. This product is the fraction of the lighter components of the cold pressed mandarin oil (*Citrus reticulata blanco var. mandarin*) that is produced by fractionated vacuum distillation. Its composition is mainly monoterpenic hydrocarbons. Food grade product.

Appearance. Colorless crystal clear liquid.

Taste and odor. Conforms to an approved standard when tasted at 0.01% in tasting syrup.

Physical constants. Specific gravity (20°C) 0.838 to 0.845
Refractive index (20°C) 1.4710 to 1.4770
Optical rotation (20°C) +75.0° to +95.5°

Chemical constants. Total aldehydes as decanal 0.15% to 0.8%

Gas chromatography analysis. Conform to an approved standard.

Legal status. 100% natural. Derived entirely from the named fruit.

Packaging. Epoxy lined steel drum.

Shelf life. At least 18 months from manufacture date if kept in full, originally sealed containers (room temperature), dark place.

Esta especificación técnica fue elaborada por un medio electrónico y por lo tanto es válida sin firma.
Edición: January 2022

Eduardo Loera
Technical Department



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Colonia Kalos,
Guadalupe, Nuevo León 67205
México

Ref: 363-ELS22
Guadalupe, N.L., February 14th, 2022.

GUARANTEE LETTER

To whom it may concern:

The company Frutech International Corporation de México, S.A. de C.V., ensures that each batch or shipment of Green Mandarin Terpenes, code ES-037, comply with the following:

1. It is a 100% product from fruit, therefore contain no animal derivates.
2. Our products are obtained from fruit wich passed strict controls on the use of pesticides, therefore, the content of these substances is low or zero.
3. Have not been adulterated and are free from foreign matter.
4. Meet the sanitary laws and corresponding Mexican Official Norms.
5. The products are safe for humans.
6. Facilities and manufacturing processes of our products comply with the Mexican Official Norm NOM-251-SSA1-2009 "Goods and services, hygiene and sanitation practices for food processing, soft and alcoholic drinks".
7. Our products are permitted for its use as ingredients and / or additives by the national laws on food, they are also allowed under FDA regulations of the E.E.U.U.
8. Our products are NOT genetically modified or are not derived from any genetically modified organism as defined in 1830/2003/EC on labeling and traceability and 1829 / 2003/EC on Genetically modified foods and any other concerning legislation.
9. These materials do not appear in lists that include them as products that may cause allergic, sensitive or incompatibility reactions.
10. These materials are free of heavy metals (lead, arsenic, mercury, cadmiun, selenium, copper) wich could interfere with product quality.

Our company is committed to customer satisfaction and to comply with all relevant regulations, inhealth issues as well as environmental and safety and food safety

Regards

Eduardo Loera S.
Quality Assurance and Regulatory Manager

Supervisores en Calidad Kosher Alef, S.C.
Certificado de Kashrut

כשרות



Vaad Hakashrut KA
Kashrut Certificate

תעודת

N° 1009069

02-Feb-2022
1 Adar 5782

FRUTECH INTERNATIONAL CORPORATION DE MÉXICO

AV. KALOS N°101, KALOS, GUADALUPE, NUEVO LEON, 67205

Los siguientes productos elaborados por: FRUTECH INTERNATIONAL CORPORATION DE MÉXICO (743) se encuentran certificados Kosher con los siguientes requerimientos:

The following products made by: FRUTECH INTERNATIONAL CORPORATION DE MÉXICO (743) are kosher certified with the following requirements:

Producto / Product	Estatus / Status	Requerimientos / Requirements	Pesaj / Passover
21776 MANDARIN TERPENES / TERPENOS DE MANDARINA	PAREVE / PARVE	SIMBOLO / SYMBOL	NO

El presente certificado tiene validez hasta el 30/11/2022. /This certificate is valid until 11/30/2022.



RABBI. CHAIM COHN

ח. כהן

ועד כשרות חרדי שע'י הקהילה האשכנזית ב'מקסיקו

Cualquier tachón o enmendadura en el presente documento, deja sin efecto la certificación. This document is void if damaged or has any alteration.

Av. Monte Blanco # 1225, Col. Lomas de Chapultepec, CDMX, C.P. 11000 Tels. (55) 70309571, (55) 70309572



SDS. SAFETY DATA SHEET. FO08-07.

Green Mandarin Terpenes. ES-037

1 IDENTIFICATION.

Product name: Green Mandarin Terpenes
 Code: ES-037
 Date: January 2022
 Company name: Frutech International Corporation de México, S.A. de C.V.
 Ave. Kalos 101, Col. Kalos, Guadalupe N.L. México 67205
 Emergency telephone: +52 (81) 8326 · 1168 (monday to friday. 0800 - 1730)
 +52(81)1604 9247 (monday to sunday)

Application of the substance: Raw material: Fragrance, flavor application, manufacture of substances

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture. GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids, H226.
 Skin irritation, H315
 Very toxic to aquatic life, H400
 May be fatal if swallowed and enters airways, H304

For the full text of the H-Statements mentioned in this Section, see Section 16.

2.2 GHS Label elements, including precautionary statements.

Pictogram



Signal word

Warning

Hazard statement(s)

H226	Flammable liquids
H315	Skin irritation
H400	Very toxic to aquatic life
H304	May be fatal if swallowed and enters airways
H319	Causes serious eye irritation

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Precautionary statement(s)

	P210	Keep away from heat/sparks/open flames/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.
	P264	Wash skin thoroughly after handling.
	P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
Rinse	P303 + P361 + P353	IF ON SKIN (or air): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
	P321	Specific treatment (see supplemental first aid instructions on this label).
	P332 + P313	If skin irritation occurs: Get medical advice/ attention.
	P362	Take off contaminated clothing and wash before reuse.
	P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
	P403 + P235	Store in a well-ventilated place. Keep cool.
	P501	Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

3 COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.

Product description	Green Mandarin Terpenes
CAS-No	8008-31-9

Hazard Components

Component	Classification	Concentration
Green Mandarin Terpenes	Flammable liquid 3; H226.	100%

4 FIRST AID MEASURES.

GENERAL ADVICE

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

INHALATION:

In the event of excessive inhalation, remove affected individual to fresh air and keep at rest. Obtain immediate medical advice.

SKIN CONTACT:

In the event of accidental contact with the skin, remove any contaminated clothing or shoes. Wash affected areas with large amounts of water (or soap and water). If irritation persists or any tissue damage is apparent, obtain medical advice.

EYE CONTACT:

Remove any contact lenses, irrigate affected eyes with water or saline solution for at least ten minutes. Obtain medical advice immediately.

INGESTION:

In case of accidental ingestion, do not induce vomiting, obtain medical advice immediately.

NOTES TO PHYSICIAN: Symptoms of poisoning may even occur after several hours: therefore medical observation for at least 48 hours after the accident

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5 FIRE FIGHTING MEASURES.

SUITABLE EXTINGUISHING MEDIA:

CO₂, foam or dry powder.

UNSUITABLE EXTINGUISHING MEDIA:

Use large quantities (flooding) of water applied as a mist or spray; solid streams may be ineffective.

SPECIAL EXPOSURE HAZARDS IN FIRE:

Sealed containers may build up pressure and release combustible materials to the FIRE. Cool containers with water if exposed to fire. Hazardous decomposition products; burning may generate CO, CO₂ and other unidentified hazardous organic compounds. Avoid inhaling fumes evolved in a fire.

PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS:

Use normal fire-fighters equipment. Wear self-contained breathing apparatus if necessary.

FURTHER INFORMATION

Explosion data	Sensitivity of mechanical impact	None
	Sensitivity to static discharge	Yes

6 ACCIDENTAL RELEASE MEASURES.

PERSONAL PROTECTION:

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all Sources of ignition. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. For personal protection see section 8.

ENVIRONMENTAL PRECAUTIONS:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

METHODS FOR CLEANING:

Contain liquid spillage with inert powder, granular absorbent or earth/sand and remove to a disposal container according to local regulations.

REFERENCE TO OTHER SECTIONS

For personal protection see section 8, for disposal see section 13.

7 HANDLING AND STORAGE.

HANDLING:

Treat containers with respect to avoid damage.

Allow adequate ventilation in use.

Reduce air contact to a minimum.

Protect from fire. Keep away from heat, sparks and flames.

Do not ingest undiluted material.

Do not eat, drink or smoke

To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded

STORAGE:

Store in full, sealed containers in a cool, dry dark place.

Avoid extremes of temperature. Do not freeze.

Store separately from oxidizing agents.

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8 EXPOSURE CONTROL / PERSONAL PROTECTION.

ENGINEERING CONTROLS:

Minimize release of product to workplace atmosphere. Local exhaust ventilation is recommended. When processing above the flashpoint temperature, the vapor is explosive when mixed with air. Such temperatures should be avoided. Avoid static discharge and all ignition sources. Used closed equipment, adequate ventilation and explosion proof electrical equipment.

Showers, eye wash stations, ventilation systems.

PERSONAL PROTECTION:

Eye / face protection

Face shield and safety glasses use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

SKIN PROTECTION

Handle with gloves.

RESPIRATORY PROTECTION

If exposure limits are exceeded for irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

HYGIEN MEASURES

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work are and clothing.

Remove and wash contaminated clothing before re-use.

ENVIRONMENTAL EXPOSURE CONTROLS

Prevent entry into drains, ground/surface water or sewerage system.

9 PHYSICAL AND CHEMICAL PROPERTIES.

1 Appearance:	Crystal liquid/ colorless.
2 Odor:	Characteristic, Citrus- mandarin.
3 Odor threshold:	No data available.
4 pH:	No data available.
5 Melting point / freezing point:	No data available.
6 Initial Boiling point and boiling range:	
7 Flash point:	46°C (closed cup)
8 Evaporation rate:	No data available.
9 Flammability (solid, gas):	No data available.
10 Upper / lower flammability or explosive limits	No data available.
11 Vapor pressure:	No data available.
12 Vapor density:	No data available.
13 Relative density:	0.838 – 0.845 g/cm ³
14 Solubility (ies):	Water: No Oil: Yes
15 Partition coefficient: n-octanol / water:	No data available.
16 Auto ignition temperature:	No data available.
17 Decomposition temperature:	No data available.
18 Viscosity:	No data available.

Other data:

CLASS 3, PACKING GROUP III

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10 STABILITY AND REACTIVITY.

10.1 Reactivity:	No data available.
10.2 Chemical stability:	Stable under recommended storage conditons.
10.3 Possibility of hazardous reactions:	No data available.
10.4 Conditions to avoid:	Heat, flames and sparks.
10.5 Incompatible materials:	Oxidizing agents.
10.6 Hazardous decomposition products:	No dangerous decomposition products expected by intended use.
	In the event of fire, see section 5.

11 TOXICOLOGICAL INFORMATION.

Information on toxicological effects

Acute toxicity

LD50 oral - Rat - > 5,000 mg/kg

Inhalation: No data available.

LD50 Dermal - Rabbit -> 10,000 mg/kg

Skin corrosion / irritation.

Skin - Rabbit.

Result: Moderate skin irritation - 24 h.

Serious eye damage/eye irritation.

No data available.

Respiratory or skin sensitisation.

No data available.

Germ cell mutagenicity

No data available

Carcinogenicity

IARC: 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 level greater than or equal to 0.1% is identified as a know or anticipated carcinogen by NTP.

OSHA: No component of this product present at level greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available.

Specific target organ toxicity - single exposure

No data available.

Specific target organ toxicity - repeated exposure

No data available.

Aspiration hazard

No data available.

Specific target organ toxicity - repeated exposure

No data available.

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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12 ECOLOGICAL INFORMATION.

This product contains a chemical which is listed as a marine pollutant according to DOT.

Ecotoxicity

Chemical name	Toxicity to algae	Toxicity to fish	Toxicity to daphnia and other aquatic invertebrates
Green Mandarin Terpenes	Very toxic to aquatic organism	Very toxic to aquatic organism	No data available

Persistence and degradability.

No data available.

Bioaccumulation.

No data available.

Mobility in soil.

No data available.

Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects

No data available

13 DISPOSAL CONSIDERATIONS.

There should be no product residues.

Contaminated packaging can be burnt, or washed and recycled.

Avoid disposal into drainage/sewerage systems or directly into the soil or aquatic environment.

Dispose of according to national / local regulations. .

14 TRANSPORT INFORMATION.

DOT (US).

UN number: 1197 Class: 3 Packaging group: III

Proper shipping name: Extracts, Flavoring liquids.

Poison inhalation Hazard: No

Environmental hazards: Marine pollutant.

IMDG

UN number: 1197 Class: 3 Packaging group: III EMS-No:F-E, S-E

Proper shipping name: Extracts, Flavoring liquids.

Poison inhalation Hazard: No

Environmental hazards: Marine pollutant.

IATA

UN number: 1197 Class: 3 Packaging group: III

Proper shipping name: Extracts, Flavoring liquids.

Poison inhalation Hazard: No

Environmental hazards: Marine pollutant.

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15 REGULATORY INFORMATION.**EU regulations.**

This product has been classified and marked in accordance with the EU Directives / Ordinance on Hazardous Materials.

Internal inventories

TSCA	Complies.
DSL / NDSL	Complies.
EINECS/ELINCS	Complies.
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies

Legend:

TSCA	United States Toxic Substances Control Act Section 8(b) Inventory.
DSL / NDSL	Canadian Domestic Substances List/Non-Domestic Substances List.
EINECS/ELINCS	European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances.
ENCS	Japan Existing and New Chemical Substances.
IECSC	China Inventory of Existing Chemical Substances.
KECL	Korean Existing and Evaluated Chemical Substances.
PICCS	Philippines Inventory of Chemical and Chemical Substances.
AICS	Australian Inventory Of Chemical Substances.

Sudden Release of Pressure Hazard No

Reactive Hazard No

Clean Water ACT

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under Comprehensive Environmental Response Compensation and Liability Act (CERCLA)(40 CFR 302) or the Superfund Amendments and Reauthorization ACT (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional or state level pertaining to releases of this material.

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16 OTHER INFORMATION.

Full text of H-Statements referred to under sections 2 and 3.

Flam. Liq.	Flammable liquids
H226	Flammable liquid and vapour.
H315	Causes skin irritation.
H304	May be fatal if swallowed and enters airways
H400	Very toxic to aquatic life.
H319	Causes serious eye irritation
Skin irrit.	Skin irritation.

HMIS Rating

Health hazard: 2

Further information.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Frutech International Corporation de México shall not be held liable for any damage resulting from handling or from contact with the above product.

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.

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