

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830 Issue date: 8/4/2020 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Substance

Substance name : MANDARIN OIL, YELLOW

EC-No. 284-521-0 CAS-No. 84929-38-4 Product code : 9803

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Industrial use

1.2.2. Uses advised against

Restrictions on use : Ultimate consumer use

1.3. Details of the supplier of the safety data sheet

Manufacturer/Supplier

FROMA ESANS ve AROMA SANAYI TICARET A.S Orhangazi Mah.Isiso San. Sit. 5.Yol Sok.No:23-25-27 34538 Esenyurt-Istanbul-TR

kalite@froma.com.tr

Further information obtainable from: Quality Assurance&Quality Control Department

1.4. Emergency telephone number

Emergency number : +90 212 623 02 90

(Mon - Fri, 08:30 - 18:30 GMT+3)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3 H226 Skin corrosion/irritation, Category 2 H315 Skin sensitisation, Category 1 H317 Reproductive toxicity, Category 2 H361 Hazardous to the aquatic environment — Acute Hazard, Category 1 H400 Hazardous to the aquatic environment — Chronic Hazard, Category 1 H410

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Flammable liquid and vapour. Causes skin irritation. May cause an allergic skin reaction. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)







GHS02 GHS07

GHS08

GHS09

Signal word (CLP) : Warning

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Hazard statements (CLP) : H226 - Flammable liquid and vapour.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H361 - Suspected of damaging fertility or the unborn child. H410 - Very toxic to aquatic life with long lasting effects.

Precautionary statements (CLP) : P201 - Obtain special instructions before use.

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.

No smoking.

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing

protection.

P321 - Specific treatment (see supplemental first aid instruction on this label).

P391 - Collect spillage.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Name : Mandarin Yellow Oil Italy

CAS-No. : 84929-38-4 EC-No. : 284-521-0

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Mandarin oil	(CAS-No.) 84929-38-4 (EC-No.) 284-521-0	100	
d-Limonene	(CAS-No.) 5989-27-5 (EC-No.) 227-813-5 (EC Index-No.) 601-029-00-7	≥ 50 - < 80	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
p-Mentha-1,4-diene	(CAS-No.) 99-85-4 (EC-No.) 202-794-6	≥ 10 - < 25	Flam. Liq. 3, H226 Repr. 2, H361 Asp. Tox. 1, H304
alpha-Pinene	(CAS-No.) 80-56-8 (EC-No.) 201-291-9	≥1-<2.5	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Myrcene	(CAS-No.) 123-35-3 (EC-No.) 204-622-5	≥ 1 – < 2.5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 2, H411

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

beta-Pinene	(CAS-No.) 127-91-3 (EC-No.) 204-872-5	≥1-<2.5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Linalool	(CAS-No.) 78-70-6 (EC-No.) 201-134-4 (EC Index-No.) 603-235-00-2	≥ 0.1 – < 1	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1B, H317

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If the victim is unconscious

: Place the affected person in the recovery position. Allow affected person to breathe fresh

air. If experiencing respiratory symptoms: Call a poison center or a doctor.

First-aid measures after skin contact : Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin

irritation or rash occurs: Get medical advice/attention. Wash off with soap and plenty of

water.

First-aid measures after eye contact : In case of contact, immediately rinse eyes with plenty of water for at least 15 minutes.

First-aid measures after ingestion : Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry powder. Carbon dioxide. For large fire: Water spray. Foam.

Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Flammable liquid and vapour.

Hazardous decomposition products in case of fire : Toxic fumes may be released. fume.

5.3. Advice for firefighters

Firefighting instructions : Move containers away from the fire area if this can be done without risk. Keep upwind. Use

water spray or fog for cooling exposed containers.

Protection during firefighting : Wear fire/flame resistant/retardant clothing. Do not attempt to take action without suitable

protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Evacuate unnecessary personnel.

Other information : Do not allow run-off from fire fighting to enter drains or water courses.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid contact with skin

and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Evacuate area.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or

public waters. Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or

universal binding agents). Ensure adequate ventilation.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks,

open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Avoid contact with skin and eyes. Avoid

breathing dust/fume/gas/mist/vapours/spray. Prevent aerosol formation or splashes.

Hygiene measures : Wash contaminated clothing before reuse. Contaminated work clothing should not b

Wash contaminated clothing before reuse. Contaminated work clothing should not be allowed out of the workplace. Do not eat, drink or smoke when using this product. Always

wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Keep only in

original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Gloves. Protective goggles.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Hand protection:

Chemically resistant protective gloves. Consult supplier for specific recommendations. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Breakthrough time: refer to the recommendations of the supplier

Eye protection:

tightly fitting safety goggles

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):





Environmental exposure controls:

Avoid release to the environment

Consumer exposure controls:

Do not eat, drink or smoke during use. Take off immediately all contaminated clothing. Always wash hands after handling the product. Avoid contact with skin and eyes.

Other information:

Keep away from food, drink and animal feedingstuffs.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour No data available Odour No data available Odour threshold : No data available : No data available pН Relative evaporation rate (butylacetate=1) : No data available Melting point : Not applicable Freezing point : No data available Boiling point : No data available

Flash point : 51 °C

Auto-ignition temperature : No data available Decomposition temperature : No data available Flammability (solid, gas) : Not applicable Vapour pressure : No data available Relative vapour density at 20 °C : No data available Relative density : No data available Solubility : insoluble in water. Partition coefficient n-octanol/water (Log Pow) : No data available Viscosity, kinematic : No data available : No data available Viscosity, dynamic : No data available Explosive properties : No data available Oxidising properties **Explosive limits** : No data available

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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

p-Mentha-1,4-diene (99-85-4)		
LD50 oral	3850 mg/kg bodyweight	
ATE CLP (oral)	3850 mg/kg bodyweight	

alpha-Pinene (80-56-8)		
LD50 oral	500 mg/kg bodyweight	
ATE CLP (oral)	500 mg/kg bodyweight	7

Linalool (78-70-6)		
LD50 oral	2790 mg/kg bodyweight	
ATE CLP (oral)	2790 mg/kg bodyweight	

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

STOT-single exposure : Not classified

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

Hazardous to the aquatic environment, short-term

(acute)

Hazardous to the aquatic environment, long-term

(chronic)

Not rapidly degradable

Additional information

: Very toxic to aquatic life with long lasting effects.

: Very toxic to aquatic life.

: Very toxic to aquatic life with long lasting effects.

: Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Avoid release to the environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)

Waste treatment methods

Sewage disposal recommendations

Product/Packaging disposal recommendations Additional information : Disposal must be done according to official regulations.

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

Prevent entry to sewers and public waters.Do not dispose of with domestic waste.

: Flammable vapours may accumulate in the container.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1169	UN 1169	UN 1169	UN 1993	UN 1993
14.2. UN proper shippin	g name			
FLAMMABLE LIQUID, N.O.S.	FLAMMABLE LIQUID, N.O.S.	Flammable liquid, n.o.s.	FLAMMABLE LIQUID, N.O.S.	FLAMMABLE LIQUID, N.O.S.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Transport document descr	iption			
UN 1169 FLAMMABLE LIQUID, N.O.S., 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1169 FLAMMABLE LIQUID, N.O.S., 3, III, MARINE POLLUTANT/ENVIRONME NTALLY HAZARDOUS	UN 1169 Flammable liquid, n.o.s., 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1993 FLAMMABLE LIQUID, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1993 FLAMMABLE LIQUID, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS
14.3. Transport hazard	class(es)			
3	3	3	3	3
1 1 1 1 1 1 1 1 1 1	1 1 1 2 2 2 3 3 3 4 3 3 3 4 3 3 3 4 3 3 3 4 3 3 3 4 3 3 3 4 3 3 3 4 3 3 3 4 3 3 4 3 3 4 3 3 4 3		1 1 1 1 1 1 1 1 1 1	**************************************
14.4. Packing group				
III	III	III	III	III
14.5. Environmental haz	ards			
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
No supplementary information	on available			

14.6. Special precautions for user

Δv_{α}	rland	trans	nort
Ove	Hallu	uans	DOIL

Classification code (ADR) : F1
Special provisions (ADR) : 274, 601
Limited quantities (ADR) : 51
Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Special packing provisions (ADR) : PP1
Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T4
Portable tank and bulk container special provisions : TP1, TP29

(ADR)

Tank code (ADR) : LGBF
Vehicle for tank carriage : FL
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Loading, unloading : CV13

and handling (ADR)

Special provisions for carriage - Operation (ADR) : S2 Hazard identification number (Kemler No.) : 30

Orange plates



: S-E

Tunnel restriction code (ADR) : D/E

Transport by sea

EmS-No. (Spillage)

Special provisions (IMDG) : 223, 274, 955

Limited quantities (IMDG) : 5 L Excepted quantities (IMDG) : E1 Packing instructions (IMDG) : LP01, P001 Special packing provisions (IMDG) : PP1 IBC packing instructions (IMDG) : IBC03 Tank instructions (IMDG) : T4 Tank special provisions (IMDG) : TP1, TP29 EmS-No. (Fire) : F-E

8/4/2020 (Version: 1.0) EN (English) 8/11

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Stowage category (IMDG) : A

Air transport

PCA Excepted quantities (IATA) : E1 PCA Limited quantities (IATA) : Y344 PCA limited quantity max net quantity (IATA) : 10L PCA packing instructions (IATA) : 355 PCA max net quantity (IATA) : 60L : 366 CAO packing instructions (IATA) : 220L CAO max net quantity (IATA) Special provisions (IATA) : A3 : 3L ERG code (IATA)

Inland waterway transport

Classification code (ADN) : F1 Special provisions (ADN) : 274, 601 Limited quantities (ADN) : 5 L Excepted quantities (ADN) : E1 Carriage permitted (ADN) : T : PP, EX, A Equipment required (ADN) : VE01 Ventilation (ADN) Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : F1
Special provisions (RID) : 274, 601
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Special packing provisions (RID) : PP1
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T4
Portable tank and bulk container special provisions : TP1, TP29

(RID)

Tank codes for RID tanks (RID) : LGBF

Transport category (RID) : 3

Special provisions for carriage – Packages (RID) : W12

Special provisions for carriage - Loading, unloading : CW13, CW31

and handling (RID)

Colis express (express parcels) (RID) : CE4
Hazard identification number (RID) : 30

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Mandarin oil is not on the REACH Candidate List

Mandarin oil is not on the REACH Annex XIV List

Mandarin oil is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 july 2012 concerning the export and import of hazardous chemicals.

Mandarin oil is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
vPvB	Very Persistent and Very Bioaccumulative

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 Data sources

December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Supplier's

safety documents. ECHA (European Chemicals Agency).

: Normal use of this product shall imply use in accordance with the instructions on the packaging. Training advice

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Flam. Liq. 3	Flammable liquids, Category 3	
Repr. 2	Reproductive toxicity, Category 2	
Skin Irrit. 2	Skin corrosion/irritation, Category 2	
Skin Sens. 1	Skin sensitisation, Category 1	
Skin Sens. 1B	Skin sensitisation, category 1B	
H226	Flammable liquid and vapour.	
H302	Harmful if swallowed.	
H304	May be fatal if swallowed and enters airways.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H319	Causes serious eye irritation.	
H361	Suspected of damaging fertility or the unborn child.	
H400	Very toxic to aquatic life.	
H410	Very toxic to aquatic life with long lasting effects.	
H411	Toxic to aquatic life with long lasting effects.	

SDS EU (REACH Annex II)

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