

Methyl Pamplemousse - GIVAUDAN

Version 8.0

Revision Date 10 FEB 2022

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

1.1 Product identifier

Sales No. : Methyl Pamplemousse - GIVAUDAN

Substance name : 1,1-DIMETHOXY-2,2,5-TRIMETHYL-4-HEXENE
Identifier

CAS : 67674-46-8
EINECS : 266-885-2
Formula : C11-H22-O2

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

Intended Use Fragrances : Perfumery ingredient

1.3 Details of the supplier of the safety data sheet

Company :
Givaudan Suisse SA
Chemin de la Parfumerie 5
CH-1214 VERNIER

Telephone : +41227809111
Telefax : +41227809150
E-mail address : global.msds_fragrances_raps@givaudan.com
Responsible/issuing person

1.4 Emergency telephone number

+33172110003
Please refer to section 16 for a full list of emergency phone numbers, from Givaudan's 24/7 provider.

SECTION 2. Hazards identification

2.1 Classification of the substance or mixture

Classification (Globally Harmonized System)

Flammable liquids, Category 4	H227: Combustible liquid.
Skin corrosion/irritation, Category 2	H315: Causes skin irritation.
Short-term (acute) aquatic hazard, Category 3	H402: Harmful to aquatic life.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (Globally Harmonized System)

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Hazard pictograms :



Signal word :

Warning

Hazard statements :

H227
H315
H412

Combustible liquid.
Causes skin irritation.
Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention:
P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P264
P273
P280

Wash skin thoroughly after handling.
Avoid release to the environment.
Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Response:

P302 + P352
P332 + P317
P362 + P364

IF ON SKIN: Wash with plenty of water.
If skin irritation occurs: Get medical help.
Take off contaminated clothing and wash it before reuse.

P370 + P378

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403

Store in a well-ventilated place.

Disposal:

P501

Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

no data available

SECTION 3. Composition/information on ingredients

Chemical name	CAS-No. EC-No.	Classification (Globally Harmonized System)	Concentration [%]
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1,1-dimethoxy-2,2,5-trimethyl-4-hexene	67674-46-8 266-885-2	Aquatic Acute 3; H402 Aquatic Chronic 3; H412 Flam. Liq. 4; H227 Skin Irrit. 2; H315	>= 50 - <= 100
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SECTION 4. First aid measures

4.1 Description of first aid measures

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : If skin irritation persists, call a physician.
If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Remove contact lenses.
Immediately flush eyes for at least 15 minutes. Get medical attention.
- If swallowed : Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

- Symptoms : no data available
- Risks : Causes skin irritation.

4.3 Indication of any immediate medical attention and special treatment needed

- Treatment : no data available

SECTION 5. Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media :
Dry chemical
Alcohol-resistant foam

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Carbon dioxide (CO₂)
Water spray

Unsuitable extinguishing media : High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

5.3 Advice for firefighters

Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
Use a water spray to cool fully closed containers.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

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Not applicable

SECTION 7. Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Provide sufficient air exchange and/or exhaust in work rooms.
Dispose of rinse water in accordance with local and national regulations.
- Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Keep away from open flames, hot surfaces and sources of ignition.

7.2 Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : No smoking.
Keep in a well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Observe label precautions.
Electrical installations / working materials must comply with the technological safety standards.
- Further information on storage conditions : Ambient / 10-30°C (50-85°F)
Dry, well ventilated, preferably full, hermetically sealed
- Advice on common storage : Protect against light.
- Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Not applicable

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Exposure assessment: Exposures are dependent on the product being handled, the potential for chemical release, and any resulting airborne concentrations or dermal

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contact. Since product handling and release scenarios vary, and no two workplaces are exactly alike, it is recommended that the potential for exposure be assessed prior to the product's use or introduction. Exposure assessments should be performed by an occupational hygienist, industrial hygienist, or other qualified occupational or environmental health professional. An exposure assessment should be conducted to determine the efficacy of any ventilation and the need for additional PPE. The PPE indicated below are recommendations for worst-case scenario exposures. An exposure assessment will identify more applicable measures to be implemented. EN and ANSI standards are mentioned in the following recommendations, consult equivalent local standards when required.

PPE is always the last resort to avoid exposure. In any case technical and organisational measures have to be explored and used prior to the selection of PPE. The PPE selection is for operators trained to work with chemicals according to good industrial hygiene and safety practice. Operators have to be trained on the use of PPE.

8.2.1 Engineering measures

Use engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use the product only with adequate ventilation.

8.2.2 Personal protective equipment

- | | |
|------------------------|--|
| Eye/face protection | : Use safety goggles tested according to EN 166/ ANSI Z87.1 or equivalent local standard. |
| Hand protection | : Use gloves when handling substance in open systems. Inspect gloves prior to use. Train operators for proper use. If only incidental exposure is expected: (work without direct contact to substance) use gloves tested according EN 16523-1/ASTM F739 or equivalent local standard breakthrough times at least 10 minutes, tested for chemicals indicated in chapter 3 of this SDS. Change gloves frequently. If direct skin contact is expected: use gloves tested according to EN 16523-1/ASTM F739 or equivalent local standard, tested for chemicals indicated in chapter 3 of this SDS. Permeation time must exceed contact time. |
| Other skin protection | : Wear working clothes covering arms and legs. |
| Respiratory protection | : Respiratory protection should be worn when workplace exposures exceed exposure limit requirements or guidelines. If there are no applicable exposure limits or guidelines, use an approved respirator where there is a potential for adverse effects, including but not limited to respiratory irritation or odor, or where indicated by the exposure assessment. Selection of air-purifying or positive-pressure supplied-air will depend on the results of the exposure assessment which includes an evaluation of the specific operations and the potential airborne |

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concentrations. For emergency conditions, use an approved positive-pressure self-contained breathing apparatus.

In case a risk analysis proved the cartridge respirator as acceptable, use type:

ABEK-P3 (EN 14387) OR Combination Multi-gas/P100 (42CFR84.193; ANSI Z88.7 or equivalent local standard) as a backup to engineering controls.

In absence of engineering controls, use self-contained breathing apparatus or full face supplied air respirators. Use respirators and components tested and approved under appropriate government standards such as CEN (EU) or NIOSH 42 CFR 84(US).

Thermal hazards : Wear appropriate thermal protective clothing, when necessary.

Hygiene measures : Remove contaminated clothing and protective equipment before entering eating areas.
Do not eat, drink or smoke during work.
Wash hands any time after handling the product.

8.2.3 Environmental exposure controls

General advice : Prevent product from entering drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state : liquid
Form : liquid
Colour : colorless to Pale yellow
Taste : not determined
Odour : Citrus-like, fruity, Bitter, Green
Odour Threshold : 18.3792 ng/l
Flash point : 73 °C Method: closed cup
Lower explosion limit : not determined
Upper explosion limit : not determined
Flammability : no data available
Oxidizing properties : The substance or mixture is not classified as oxidizing.
Information taken from reference works and the literature.

Auto-ignition temperature : 220 °C Method: DIN 51794
Decomposition temperature : no data available
Molecular weight : 186.30 g/mol
pH : no data available

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Melting point	: < -80 °C
Boiling point	: 201 °C at 1,013 hPa
Vapour pressure	: 0.16 hPa at 20 °C
Density	: 877.41 kg/m ³ at 20 °C
Bulk density	: Not applicable
Water solubility	: 85.2 mg/l at 20 °C
Solubility/qualitative	: practically insoluble
Partition coefficient: n-octanol/water	: log Pow: 3.8 Method: OECD Test Guideline 117
Viscosity, kinematic	: no data available
Relative vapour density	: no data available
Surface tension	: 59.8 mN/m at 20 °C Method: OECD Test Guideline 115
Evaporation rate	: no data available

SECTION 10. Stability and reactivity

10.1 Reactivity

none

10.2 Chemical stability

The product is chemically stable.

10.3 Possibility of hazardous reactions

Hazardous reactions : No decomposition if stored and applied as directed. Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Heat, flames and sparks.

10.5 Incompatible materials

Materials to avoid : no data available

10.6 Hazardous decomposition products

Hazardous decomposition products : no data available
Thermal decomposition : no data available

SECTION 11. Toxicological information

Information on toxicological effects

Acute toxicity

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Acute oral toxicity : No data is available on the product itself.

Acute inhalation toxicity : No data is available on the product itself.

Acute dermal toxicity : No data is available on the product itself.

Acute toxicity (other routes of administration) : No data is available on the product itself.

Skin corrosion/irritation

Skin irritation : Species: Rabbit
Skin irritation
Method: OECD Test Guideline 404
May cause skin irritation in susceptible persons.

Serious eye damage/eye irritation

Eye irritation : Species: Rabbit
No eye irritation
Vapours may cause irritation to the eyes, respiratory system and the skin.

Eye irritation
1,1-dimethoxy-2,2,5-trimethyl-4-hexene :

Respiratory or skin sensitisation

Sensitisation : No data is available on the product itself.

Germ cell mutagenicity

Genotoxicity in vitro : Ames test
negative
Method: Mutagenicity (Escherichia coli - reverse mutation assay)

Micronucleus test
negative
Method: OECD Test Guideline 487

In vitro mammalian cell gene mutation test
negative
Method: OECD Test Guideline 490

Carcinogenicity

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Carcinogenicity : No data is available on the product itself.

Reproductive toxicity

Not classified based on available information.

Target Organ Systemic Toxicant - Single exposure

Target Organ Systemic Toxicant - Single exposure : No data is available on the product itself.

Target Organ Systemic Toxicant - Repeated exposure

Target Organ Systemic Toxicant - Repeated exposure : Exposure time: 28 d ()
NOAEL: 1,500 mg/kg
Method: OECD Test Guideline 422

Aspiration hazard

Aspiration toxicity : No data is available on the product itself.

Phototoxicity

Phototoxicity : UV-VIS absorption spectra
Result:negative

Further information : no data available

SECTION 12. Ecological information

Ecotoxicity

Product:

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 22 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 50.7 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): 13 mg/l
Exposure time: 72 h

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Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

ErC10 (Pseudokirchneriella subcapitata (green algae)): 5.5 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

Persistence and degradability

Product:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301 F
GLP: yes

Result: Not inherently biodegradable.
Biodegradation: < 20 %
Exposure time: 32 d
Method: OECD Test Guideline 302 C
GLP: yes

Bioaccumulative potential

no data available

Mobility in soil

Product:

Distribution among environmental compartments : log Koc: 3.06
Method: OECD Test Guideline 121

Other adverse effects

Product:

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life with long lasting effects.

SECTION 13. Disposal considerations

13.1 Waste treatment methods

Product : The product should not be allowed to enter drains, water

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courses or the soil.
Do not contaminate ponds, waterways or ditches with chemical or used container.
Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

Dispose of in accordance with local regulations.

SECTION 14. Transport information

14.1 UN number

N/A

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

N/A

14.4 Packing group

N/A

14.5 Environmental hazards

N/A

14.6 Special precautions for user

IMDG

IMDG Code Segregation : None
Group

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

Not applicable for product as supplied.

SECTION 15. Regulatory information

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

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mixture

no additional relevant information

SECTION 16. Other information

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

H227	Combustible liquid.
H315	Causes skin irritation.
H402	Harmful to aquatic life.
H412	Harmful to aquatic life with long lasting effects.

Full list of Emergency response numbers worldwide.

	Country	Phone nr		Country	Phone nr
Europe	All Europe	+44 1235 239670	APAC	All East/South East Asia	+65 3158 1074
	France	+33 1 72 11 00 03		Sri Lanka	+65 3158 1195
	Germany	+49 89 220 61012		Taiwan	+886 2 8793 3212
	Spain	+34 91 114 2520		Japan	+81 3 4578 9341
	Italy	+39 02 3604 2884		Indonesia	007 803 011 0293
	Netherlands	+31 10 713 8195		Malaysia	+60 3 6207 4347
	Turkey	+90 212 375 5231		Thailand	001 800 120 666 751
	Norway	+47 2103 4452		India	+65 3158 1198 000 800 100 7479
	Greece	+30 21 1198 3182		Pakistan	+65 3158 1329
	Portugal	+351 30880 4750		Bangladesh	+65 3158 1200
	Denmark	+45 8988 2286		Philippines	+63 2 8231 2149
	Sweden	+46 8 566 42573		Vietnam	+84 28 4458 2388
	Poland	+48 22 307 3690		Korea	+65 3158 1285
	Czech replublic	+420 228 882 830		South Korea	+82 2 3479 8401
	Finland	+358 9 7479 0199		Australia	+61 2 8014 4558
Middle East/Africa	All Middle East/Africa	+44 1235 239671	LATAM	New Zealand	+64 9 929 1483
	Bahrain and Middle East	+44 1235 239671		China	+86 532 8388 9090
	Africa/South Africa	+27 21 300 2732		Mexico	+52 55 5004 8763
NOAM	USA and Canada	+1 866 928 0789		Brazil	+55 11 3197 5891
	USA and Canada	+1 215 207 0061		Chile	+56 2 2582 9336
	USA and	+1 202 464 2554		Colombia	+57 1 508 7337

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Global	Global	+44 1865 407333	Argentina	+54 11 5984 3690

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Information displayed in section 3 (Composition/information on ingredients) is additional information to understand the hazards of the product and ensure safe handling, storage and transportation. This information, including CAS numbers, is not meant to be used for registration, notification or any other purposes. Any additional information and documentation needed may be provided by Givaudan.

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