

SAFETY DATA SHEET

In accordance with UN GHS latest edition

Product: Compare To GAIN ® F23990

Version: 2

Section 1. Identification of the substance or the mixture and of the supplier

1.1 Product Identifier

Product identifier: Compare To GAIN ® F23990(Contains:1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone, 2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde, Linalool, alpha-iso-Methylionone)

Other identifiers: none

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

Product uses: Fragrances

1.3 Details of the supplier of the safety data sheet

Company name: Aromatic Fragrances International

Company address: 85 Wansley Drive SE
Cartersville, GA 30121
USA

Contact: Regulatory Affairs

E-Mail address: regulatory@afi-usa.com

Company phone: 770-334-3906

1.4 Emergency telephone number

Emergency phone: 770-334-3906

Section 2. Hazards identification

2.1 Classification of the substance or mixture

Class and category of danger: Skin Corrosion / Irritation Category 2
Eye Damage / Irritation Category 2
Sensitization - Skin Category 1
Hazardous to the Aquatic Environment - Acute Hazard Category 2
Hazardous to the Aquatic Environment - Long-term Hazard Category 2
H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H411, Toxic to aquatic life with long lasting effects.

2.2 Label elements

Signal word: Warning

Hazard statements: H315, Causes skin irritation.
H317, May cause an allergic skin reaction.
H319, Causes serious eye irritation.
H411, Toxic to aquatic life with long lasting effects.

Precautionary statements: P261, Avoid breathing vapour or dust.

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P264, Wash hands and other contacted skin thoroughly after handling.
P272, Contaminated work clothing should not be allowed out of the workplace.
P273, Avoid release to the environment.
P280, Wear protective gloves/eye protection/face protection.
P302/352, IF ON SKIN: Wash with plenty of soap and water.
P305/351/338, IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333/313, If skin irritation or rash occurs: Get medical advice/attention.
P337/313, If eye irritation persists: Get medical advice/attention.
P362, Take off contaminated clothing and wash before reuse.
P391, Collect spillage.
P501, Dispose of contents/container to approved disposal site, in accordance with local regulations.

Pictograms:



2.3 Other hazards

Other hazards: Hydrocarbon Concentration %: 0.0000%

Section 3. Composition / information on ingredients

3.2 Mixtures

Contains:

Name	CAS	%	GHS Classification
Diethyl phthalate	84-66-2	50-100%	Aquatic Acute 3;H402
1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone	54464-57-2	10-<20%	Skin Irrit. 2-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 1;H315-H317-H401-H410
2-Isobutyl-4-methyltetrahydro-2H-pyran-4-ol	63500-71-0	5-<10%	Eye Irrit. 2A;H319
Benzyl benzoate	120-51-4	1-<5%	Acute Tox. 4-Aquatic Acute 1-Aquatic Chronic 2;H302-H400-H411
Dihydromyrcenol	18479-58-8	1-<5%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-STOT SE 3-Aquatic Acute 3;H227-H303-H315-H319-H336-H402
1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran	1222-05-5	1-<5%	Skin Irrit. 3-Aquatic Acute 1-Aquatic Chronic 1;H316-H410
Tricyclodecanyl acetate	5413-60-5	1-<5%	Acute Tox. 5-Skin Irrit. 3-Aquatic Acute 2-Aquatic Chronic 1;H303-H316-H401-H410
Linalool	78-70-6	1-<5%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B-Aquatic Acute 3;H227-H303-H315-H317-H319-H402

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alpha-iso-Methylionone	127-51-5	1-<5%	Skin Irrit. 3-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 2;H316-H317-H411
2,2-Dimethyl-3-phenylpropanol	13351-61-6	1-<5%	Acute Tox. 4-Skin Irrit. 2-Eye Irrit. 2A-Aquatic Acute 3-Aquatic Chronic 3;H302-H315-H319-H412
2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde	68039-49-6	1-<5%	Flam. Liq. 4-Acute Tox. 5-Skin Irrit. 2-Skin Sens. 1B-Aquatic Acute 2-Aquatic Chronic 2;H227-H303-H315-H317-H411
3a,4,5,6,7,7a-Hexahydro-4,7-methano-1H-indenyl propionate (mixture of isomers)	68912-13-0	1-<5%	Aquatic Acute 2-Aquatic Chronic 2;H411
Lauric aldehyde	112-54-9	0.1-<1%	Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1B;H315-H317-H319
Allyl cyclohexanepropionate	2705-87-5	0.1-<1%	Acute Tox. 4-Acute Tox. 4-Skin Sens. 1-Aquatic Acute 1-Aquatic Chronic 2;H302-H312-H317-H400-H411
alpha-Hexylcinnamaldehyde	101-86-0	0.1-<1%	Acute Tox. 5-Skin Irrit. 3-Skin Sens. 1B-Aquatic Acute 1-Aquatic Chronic 2;H303-H316-H317-H400-H411
Hexyl salicylate	6259-76-3	0.1-<1%	Skin Irrit. 3-Skin Sens. 1B-Aquatic Acute 1-Aquatic Chronic 1;H316-H317-H410
Citral	5392-40-5	0.1-<1%	Skin Irrit. 2-Eye Irrit. 2A-Skin Sens. 1-Aquatic Acute 2;H315-H317-H319-H401
1-(5,6,7,8-Tetrahydro-3,5,5,6,8,8-hexamethyl-2-naphthyl)ethan-1-one (Fixolid)	1506-02-1	0.1-<1%	Acute Tox. 4-Aquatic Acute 1-Aquatic Chronic 1;H302-H410

Substances with workplace exposure limits, not listed above:

Not Applicable

Section 4. First-aid measures

4.1 Description of first aid measures

- Inhalation:** Remove from exposure site to fresh air, keep at rest, and obtain medical attention.
- Eye exposure:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Skin exposure:** IF ON SKIN: Wash with plenty of soap and water.
- Ingestion:** Rinse mouth with water and obtain medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Causes skin irritation.
- May cause an allergic skin reaction.
- Causes serious eye irritation.

4.3 Indication of any immediate medical attention and special treatment needed

None expected, see Section 4.1 for further information.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable media: Carbon dioxide, Dry chemical, Foam.

5.2 Special hazards arising from the substance or mixture

In case of fire, may be liberated: Carbon monoxide, Unidentified organic compounds.

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5.3 Advice for fire fighters:

In case of insufficient ventilation, wear suitable respiratory equipment.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Avoid inhalation. Avoid contact with skin and eyes. See protective measures under Section 7 and 8.

6.2 Environmental precautions:

Keep away from drains, surface and ground water, and soil.

6.3 Methods and material for containment and cleaning up:

Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Contain spillage immediately by use of sand or inert powder. Dispose of according to local regulations.

6.4 Reference to other sections:

Also refer to sections 8 and 13.

Section 7. Handling and storage

7.1 Precautions for safe handling:

Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Use personal protective equipment as required. Use in accordance with good manufacturing and industrial hygiene practices. Use in areas with adequate ventilation. Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities:

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating and lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

7.3 Specific end use(s):

Fragrances: Use in accordance with good manufacturing and industrial hygiene practices.

Section 8. Exposure controls/personal protection

8.1 Control parameters

Workplace exposure limits: Not Applicable

8.2 Exposure Controls

Eye / Skin Protection

Wear protective gloves/eye protection/face protection

Respiratory Protection

Under normal conditions of use and where adequate ventilation is available to prevent build up of excessive vapour, this material should not require special engineering controls. However, in conditions of high or prolonged use, or high temperature or other conditions which increase exposure, the following engineering controls can be used to minimise exposure to personnel: a) Increase ventilation of the area with local exhaust ventilation. b) Personnel can use an approved, appropriately fitted respirator with organic vapour cartridge or canisters and particulate filters. c) Use closed

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systems for transferring and processing this material.

Also refer to Sections 2 and 7.

Section 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Free flowing liquid without sediment
Odour:	Characteristic
Odour threshold:	Not determined
pH:	Not determined
Melting point / freezing point:	Not determined
Initial boiling point / range:	Not determined
Flash point:	> 93 °C
Evaporation rate:	Not determined
Flammability (solid, gas):	Not determined
Upper/lower flammability or explosive limits:	Product does not present an explosion hazard
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density:	1.0270 - 1.0570
Solubility(ies):	Not determined
Partition coefficient: n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity:	Not determined
Explosive properties:	Not expected
Oxidising properties:	Not expected

9.2 Other information:

Flash Point (Fahrenheit):	> 200 °F
Refractive Index @ 20C:	1.4914 - 1.5014
Color Range:	2 Very Pale Yellow - Colorless
Calculated VOC:	5.53

Section 10. Stability and reactivity

10.1 Reactivity:

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

10.2 Chemical stability:

Good stability under normal storage conditions.

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10.3 Possibility of hazardous reactions:

Not expected under normal conditions of use.

10.4 Conditions to avoid:

Avoid extreme heat.

10.5 Incompatible materials:

Avoid contact with strong acids, alkalis or oxidising agents.

10.6 Hazardous decomposition products:

Not expected.

Section 11. Toxicological information

11.1 Information on toxicological effects

This mixture has not been tested as a whole for health effects. The health effects have been calculated using the methods outlined in UN GHS.

Acute Toxicity:	Based on available data the classification criteria are not met.
Acute Toxicity Oral	>5000
Acute Toxicity Dermal	Not Applicable
Acute Toxicity Inhalation	Not Available
Skin corrosion/irritation:	Skin Corrosion / Irritation Category 2
Serious eye damage/irritation:	Eye Damage / Irritation Category 2
Respiratory or skin sensitisation:	Sensitization - Skin Category 1
Germ cell mutagenicity:	Based on available data the classification criteria are not met.
Carcinogenicity:	Based on available data the classification criteria are not met.
Reproductive toxicity:	Based on available data the classification criteria are not met.
STOT-single exposure:	Based on available data the classification criteria are not met.
STOT-repeated exposure:	Based on available data the classification criteria are not met.
Aspiration hazard:	Based on available data the classification criteria are not met.

Information about hazardous ingredients in the mixture

Ingredient	CAS	LD50/ATE Oral (mg/kg)	LD50/ATE Dermal (mg/kg)	LC50/ATE Inhalation	LC50 Route
2,2-Dimethyl-3-phenylpropanol	13351-61-6	1970	Not available	Not available	Not available
2,4-Dimethyl-3-cyclohexen-1-carboxaldehyde	68039-49-6	2330	Not available	Not available	Not available
Benzyl benzoate	120-51-4	1160	Not available	Not available	Not available
Dihydromyrcenol	18479-58-8	3020	Not available	Not available	Not available
Linalool	78-70-6	2790	Not available	Not available	Not available
Tricyclodecanyl acetate	5413-60-5	2750	Not available	Not available	Not available

Refer to Sections 2 and 3 for additional information.

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Section 12. Ecological information

12.1 Toxicity:

Toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability: Not available

12.3 Bioaccumulative potential: Not available

12.4 Mobility in soil: Not available

12.5 Other adverse effects: Not available

Section 13. Disposal considerations

13.1 Waste treatment methods:

Dispose of in accordance with local regulations. Avoid disposing into drainage systems and into the environment. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14. Transport information

	14.1 UN number:	14.2 UN Proper Shipping Name:	14.3 Transport hazard class (es):	Sub Risk:	14.4 Packing Group:
UN Model Regulations	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone, 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran)	9	-	III
IMDG	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone, 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran) MARINE POLLUTANT	9	-	III
ADR,RID,ADN	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone, 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran)	9	-	III

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ICAO TI	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (1-(1,2,3,4,5,6,7,8-Octahydro-2,3,8,8-tetramethyl-2-naphthalenyl)ethanone, 1,3,4,6,7,8-Hexahydro-4,6,6,7,8,8-hexamethylcyclopenta-gamma-2-benzopyran)	9	-	III
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14.5 Environmental hazards: This is classified as an environmentally hazardous substance under the UN Model Regulations. This is classified as a Marine Pollutant under the IMDG Code.

14.6 Special precautions for user: None additional

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:

Not applicable

Section 15. Regulatory information

Components listed on California's SB312

Name	CAS	%
Benzyl benzoate	120-51-4	1-<5%
Linalool	78-70-6	1-<5%
alpha-iso-Methylionone	127-51-5	1-<5%
alpha-Hexylcinnamaldehyde	101-86-0	0.1-<1%
Citral	5392-40-5	0.1-<1%

Section 16. Other information

Concentration % Limits: SCI 2=44.55% SCI 3=4.19% EDI 2A=76.53% SS 1=6.58% EH A2=25.64% EH A3=2.41% EH C2=12.34% EH C3=1.23% EH C4=87.52%

Total Fractional Values: SCI 2=2.24 SCI 3=23.86 EDI 2A=1.31 SS 1=15.19 EH A2=3.90 EH A3=41.48 EH C2=8.10 EH C3=81.06 EH C4=1.14

Key to revisions:

2.1 Classification of the substance or mixture

Concentration % Limits

SECTION 3: Composition/information on ingredients

Total Fractional Values

Key to abbreviations:

Abbreviation	Meaning
Acute Tox. 4	Acute Toxicity - Oral Category 4
Acute Tox. 4	Acute Toxicity - Dermal Category 4
Acute Tox. 5	Acute Toxicity - Oral Category 5
Aquatic Acute 1	Hazardous to the Aquatic Environment - Acute Hazard Category 1

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Aquatic Acute 2	Hazardous to the Aquatic Environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the Aquatic Environment - Acute Hazard Category 3
Aquatic Chronic 1	Hazardous to the Aquatic Environment - Long-term Hazard Category 1
Aquatic Chronic 2	Hazardous to the Aquatic Environment - Long-term Hazard Category 2
Aquatic Chronic 3	Hazardous to the Aquatic Environment - Long-term Hazard Category 3
Eye Irrit. 2A	Eye Damage / Irritation Category 2A
Flam. Liq. 4	Flammable Liquid, Hazard Category 4
H227	Combustible liquid.
H302	Harmful if swallowed.
H303	May be harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H316	Causes mild skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H400	Very toxic to aquatic life.
H401	Toxic to aquatic life.
H402	Harmful to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
P210	Keep away from heat, sparks, open flames and hot surfaces. - No smoking.
P261	Avoid breathing vapour or dust.
P264	Wash hands and other contacted skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/eye protection/face protection.
P301/312	IF SWALLOWED: call a POISON CENTER or doctor/physician if you feel unwell.
P302/352	IF ON SKIN: Wash with plenty of soap and water.
P304/340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305/351/338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTRE or doctor/physician if you feel unwell.
P330	Rinse mouth.
P332/313	If skin irritation occurs: Get medical advice/attention.
P333/313	If skin irritation or rash occurs: Get medical advice/attention.
P337/313	If eye irritation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P363	Wash contaminated clothing before reuse.

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P370/378	In case of fire: Use carbon dioxide, dry chemical, foam for extinction.
P391	Collect spillage.
P403/233/235	Store in a well-ventilated place. Keep container tightly closed. Keep cool.
P403/235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container to approved disposal site, in accordance with local regulations.
STOT SE 3	Specific Target Organ Toxicity (Single Exposure) Category 3
Skin Irrit. 2	Skin Corrosion / Irritation Category 2
Skin Irrit. 3	Skin Corrosion / Irritation Category 3
Skin Sens. 1	Sensitization - Skin Category 1
Skin Sens. 1B	Sensitization - Skin Category 1B

The information in this safety data sheet is to the best of our knowledge true and accurate but all data, instructions, recommendations and/or suggestions are made without guarantee.