

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : MACINTOSH APPLE DUPLICATION
 CAS-No. : MIXTURE
 Product code : #296801

1.2. Recommended use and restrictions on use

No additional information available

1.3. Supplier

1.4. Emergency telephone number

Emergency number : INFOTRAC (US & Canada) 1-800-535-5053 | (International) 1-352-323-3500

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Skin corrosion/irritation Category 2 H315 Causes skin irritation
 Serious eye damage/eye irritation Category 2 H319 Causes serious eye irritation
 Skin sensitization, Category 1 H317 May cause an allergic skin reaction

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Warning

Hazard statements (GHS US) :

H315 - Causes skin irritation
 H317 - May cause an allergic skin reaction
 H319 - Causes serious eye irritation

Precautionary statements (GHS US) :

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
 P264 - Wash hands, forearms and face thoroughly after handling.
 P272 - Contaminated work clothing must not be allowed out of the workplace.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P302+P352 - If on skin: Wash with plenty of water.
 P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P321 - Specific treatment (see supplemental first aid instruction on this label).
 P332+P313 - If skin irritation occurs: Get medical advice/attention.
 P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
 P337+P313 - If eye irritation persists: Get medical advice/attention.
 P362+P364 - Take off contaminated clothing and wash it before reuse.
 P363 - Wash contaminated clothing before reuse.
 P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
HEXYL CINNAMAL	(CAS-No.) 101-86-0	10 – 30	Skin Sens. 1B, H317
BENZYL BENZOATE	(CAS-No.) 120-51-4	1 – 5	Acute Tox. 4 (Oral), H302
DIHYDRO MYRCENOL	(CAS-No.) 18479-58-8	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319
ALLYL AMYL GLYCOLATE	(CAS-No.) 67634-00-8	1 – 5	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Inhalation), H330 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Irrit. 2, H315
Isocyclocitral	(CAS-No.) 1335-66-6	1 – 5	Flam. Liq. 4, H227 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1B, H317
FRUCTONE	(CAS-No.) 6413-10-1	1 – 5	Flam. Liq. 4, H227 Skin Corr. 1C, H314 Eye Dam. 1, H318
3 and 4-(4-Hydroxy-4-methylpentyl)cyclohex-3-ene-1-carbaldehyde	(CAS-No.) 31906-04-4	0.5 – 1	Skin Sens. 1A, H317

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: If you feel unwell, seek medical advice.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: None under normal conditions.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Specific hazards arising from the chemical

Fire hazard	: No fire hazard.
Explosion hazard	: No direct explosion hazard.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
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Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/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 unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk.

Methods for cleaning up : Take up liquid spill into absorbent material.

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

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.

Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapors/spray.

Hygiene measures : 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 : Keep in a cool, well-ventilated place away from heat.

Storage conditions : Keep cool. Protect from sunlight.

Packaging materials : Store always product in container of same material as original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE (31906-04-4)

Not applicable

ISO CYCLO CITRAL (1335-66-6)

Not applicable

HEXYL CINNAMIC ALDEHYDE (101-86-0)

Not applicable

FRUCTONE (6413-10-1)

Not applicable

DIHYDRO MYRCENOL (18479-58-8)

Not applicable

BENZYL BENZOATE (120-51-4)

Not applicable

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ALLYL AMYL GLYCOLATE (67634-00-8)

Not applicable

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: No data available
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 100 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
No data available	Viscosity, kinematic : No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available

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Oxidizing properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

No additional information available

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

HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE (31906-04-4)

LD50 oral rat	3230 mg/kg body weight (Rat, Literature study, Oral)
LD50 dermal rabbit	11200 mg/kg body weight (Rabbit, Literature study, Dermal)
ATE US (oral)	3230 mg/kg body weight
ATE US (dermal)	11200 mg/kg body weight

ISO CYCLO CITRAL (1335-66-6)

ATE US (oral)	3220 mg/kg body weight
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HEXYL CINNAMIC ALDEHYDE (101-86-0)

ATE US (oral)	3100 mg/kg body weight
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DIHYDRO MYRCENOL (18479-58-8)

ATE US (oral)	3600 mg/kg body weight
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BENZYL BENZOATE (120-51-4)

LD50 oral rat	> 2000 mg/kg body weight (OECD 401: Acute Oral Toxicity, Rat, Male/female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2 ml/kg (Modification of Draize 1959 method, 4 h, Rabbit, Experimental value, Dermal)
ATE US (oral)	1160 mg/kg body weight

ALLYL AMYL GLYCOLATE (67634-00-8)

ATE US (oral)	500 mg/kg body weight
ATE US (gases)	100 ppmV/4h
ATE US (vapors)	0.5 mg/l/4h
ATE US (dust, mist)	0.5 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

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

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

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STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

FRUCTONE (6413-10-1)

NOAEL (oral,rat,90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
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Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Symptoms/effects after inhalation : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.

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

Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : None under normal conditions.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

FRUCTONE (6413-10-1)

LC50 - Fish [1]	> 100 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
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BENZYL BENZOATE (120-51-4)

LC50 - Fish [1]	2.32 mg/l (EU Method C.1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
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EC50 - Crustacea [1]	3.09 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
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12.2. Persistence and degradability

HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE (31906-04-4)

Persistence and degradability	Biodegradability in water: no data available.
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DIHYDRO MYRCENOL (18479-58-8)

Persistence and degradability	Biodegradability in water: no data available.
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BENZYL BENZOATE (120-51-4)

Persistence and degradability	Readily biodegradable in water.
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ALLYL AMYL GLYCOLATE (67634-00-8)

Persistence and degradability	Biodegradability in water: no data available.
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12.3. Bioaccumulative potential

HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE (31906-04-4)

Bioaccumulative potential	No bioaccumulation data available.
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DIHYDRO MYRCENOL (18479-58-8)

Partition coefficient n-octanol/water (Log Pow)	3.47 (Estimated value)
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Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
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BENZYL BENZOATE (120-51-4)

BCF - Fish [1]	2.286 (BCFBAF v3.00, Pisces, QSAR)
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Partition coefficient n-octanol/water (Log Pow)	3.97 (Experimental value, 25 °C)
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Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).
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ALLYL AMYL GLYCOLATE (67634-00-8)

Bioaccumulative potential	No bioaccumulation data available.
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12.4. Mobility in soil

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HYDROXYISOHEXYL 3-CYCLOHEXENE CARBOXALDEHYDE (31906-04-4)	
Ecology - soil	No (test)data on mobility of the substance available.
DIHYDRO MYRCENOL (18479-58-8)	
Ecology - soil	No (test)data on mobility of the substance available.
BENZYL BENZOATE (120-51-4)	
Surface tension	0.027 N/m (210 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	3.8 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value)
Ecology - soil	Low potential for mobility in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description (DOT)	: UN3082 Environmentally hazardous substances, liquid, n.o.s. (HEXYL CINNAMAL), 9, III
UN-No.(DOT)	: UN3082
Proper Shipping Name (DOT)	: Environmentally hazardous substances, liquid, n.o.s. HEXYL CINNAMAL
Class (DOT)	: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Packing group (DOT)	: III - Minor Danger
Hazard labels (DOT)	: 9 - Class 9 (Miscellaneous dangerous materials)



DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
DOT Symbols	: G - Identifies PSN requiring a technical name

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DOT Special Provisions (49 CFR 172.102)	: 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies. 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination. 173 - An appropriate generic entry may be used for this material. 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s.," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging. IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 155
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: No Limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: No Limit
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
Emergency Response Guide (ERG) Number	: 171
Other information	: No supplementary information available.

SECTION 15: Regulatory information

15.1. US Federal regulations

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

MUSK CONC. (GALAXOLIDE NEAT)	CAS-No. 1222-05-5	1 – 5%
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SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date : 05/14/2025

Full text of H-phrases:

H227	Combustible liquid
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.