



CASSIA EXTRA REDISTILLED OIL

Safety Data Sheet

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

Issue date: 08/01/2018

Revision date: 10/23/2023

Supersedes: 08/07/2023

Version: 1.5

SECTION 1: Identification

1.1. Identification

Product form : Substance
Product name : CASSIA EXTRA REDISTILLED OIL
CAS-No. : 104-55-2
Product code : 50-6060-03
Formula : C9H8O
Synonyms : 2-Propenal, 3-phenyl- / 3-phenyl-2-propenal / 3-phenyl-2-propenaldehyde / 3-phenylacrolein / 3-phenylpropenal / ABION CA / acrolein, 3-phenyl- / benzylideneacetaldehyde / beta-phenylacrolein / beta-phenylcrolein / cassia aldehyde / cinnamaldehyde / cinnamic aldehyde / cinnamaldehide / cinnamyl aldehyde / FEMA NUMBER 2286 / phenylacrolein / zimmtaldehyde
BIG No : 11158

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Odorant
Cosmetic product: raw material
Odorant: component

1.3. Supplier

The Lebermuth Company
4004 Technology Drive
South Bend, IN 46628 - United States
T 574-259-7000 - F 574-258-7450
info@lebermuth.com - www.lebermuth.com

1.4. Emergency telephone number

Emergency number : CHEMTREC - USA: 800-424-9300 International: +1 703-527-3887 / 1-800-424-9300
CCN 13010

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Acute toxicity (dermal) Category 4 : Harmful in contact with skin
Skin corrosion/irritation Category 2 : Causes skin irritation
Serious eye damage/eye irritation Category 2A : Causes serious eye irritation
Skin sensitization, category 1A : May cause an allergic skin reaction

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



GHS07

Signal word (GHS US) : Warning
Hazard statements (GHS US) : Harmful in contact with skin
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye irritation
Precautionary statements (GHS US) : Avoid breathing dust/fume/gas/mist/vapors/spray.
Wash hands, forearms and face thoroughly after handling.
Contaminated work clothing must not be allowed out of the workplace.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin: Wash with plenty of water.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a poison center or doctor if you feel unwell.
Specific treatment (see supplemental first aid instruction on this label).

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Specific treatment (see supplemental first aid instruction on this label)
If skin irritation occurs: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Wash contaminated clothing before reuse.
Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

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

Name	Product identifier	%	GHS US classification
CINNAMALDEHYDE	(CAS-No.) 104-55-2	100	Acute Tox. 4 (Dermal), H312 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1A, H317

Full text of hazard classes and 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 general : Call a poison center/doctor/physician if you feel unwell.
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 : EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing.
Symptoms/effects after skin contact : Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact : Eye irritation.
Symptoms/effects after ingestion : Nausea. Abdominal pain. Vomiting. Irritation of the gastric/intestinal mucosa.
Chronic symptoms : Red skin. Swelling of the skin. Skin rash/inflammation.

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 : Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.

5.2. Specific hazards arising from the chemical

Fire hazard : DIRECT FIRE HAZARD: Combustible. INDIRECT FIRE HAZARD: Temperature above flashpoint: higher fire/explosion hazard. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard : INDIRECT EXPLOSION HAZARD: Reactions with explosion hazards: see "Reactivity Hazard".
Reactivity : Reacts slowly on exposure to air: peroxidation resulting in increased fire or explosion risk. Oxidizes slowly on exposure to light. Reacts with combustible materials: (increased) risk of fire. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts violently on exposure to temperature rise with (some) acids/bases.

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5.3. Special protective equipment and precautions for fire-fighters

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| Precautionary measures fire | : Exposure to fire/heat: keep upwind. Exposure to fire/heat: have neighbourhood close doors and windows. |
| Firefighting instructions | : Cool tanks/drums with water spray/remove them into safety. |
| 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

6.1.1. For non-emergency personnel

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| Protective equipment | : Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034). |
| Emergency procedures | : Ventilate spillage area. Avoid contact with skin, eyes and clothing. Avoid breathing dust/fume/gas/mist/vapors/spray. |

6.1.2. For emergency responders

- | | |
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| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

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| For containment | : Contain released product, collect/pump into suitable containers. Plug the leak, cut off the supply. |
| 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

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| Precautions for safe handling | : Ensure good ventilation of the work station. Do not get in eyes, on skin, or on clothing. 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

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| Storage conditions | : Store in a well-ventilated place. Keep cool. |
| Heat-ignition | : KEEP SUBSTANCE AWAY FROM: heat sources. |
| Information on mixed storage | : KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. (strong) bases. (strong) acids. |
| Storage area | : Store in a cool area. Store in a dark area. Keep container in a well-ventilated place. Provide for a tub to collect spills. Keep only in the original container. Store only in a stabilised state. May be stored under argon. May be stored under nitrogen. Keep out of direct sunlight. Meet the legal requirements. |
| Special rules on packaging | : SPECIAL REQUIREMENTS: hermetical. clean. opaque. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers. |
| Packaging materials | : SUITABLE MATERIAL: glass. MATERIAL TO AVOID: aluminium. iron. synthetic material. |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

CINNAMALDEHYDE (104-55-2)

No additional information available

8.2. Appropriate engineering controls

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

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8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:

GIVE GOOD RESISTANCE: butyl rubber

Hand protection:

Gloves

Eye protection:

Safety glasses

Skin and body protection:

Protective clothing

Respiratory protection:

High gas/vapour concentration: full face mask
with filter type A



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Color	: YELLOW LIQUID
Odor	: CHARACTERISTIC ODOR AND TASTE OF CINNAMON/CASSIA
Odor threshold	: No data available
pH	: 4.7 (1 %, 30 °C, OECD 122: Partition Coefficient (n-Octanol/Water), pH-Metric Method for Ionisable Substances)
Melting point	: -7.5 °C
Freezing point	: No data available
Boiling point	: > 250 °C (970 hPa, OECD 103: Boiling Point)
Flash point	: 93.3 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 0.039 hPa (25 °C)
Relative vapor density at 20°C	: 4.6
Relative density	: 1.054 (1.042 – 1.058)
Relative density of saturated gas/air mixture	: 1
Density	: 1041 kg/m³ (20 °C, OECD 109: Density of Liquids and Solids)
Molecular mass	: 132.16 g/mol
Solubility	: Insoluble. Water: 1 g/100ml Ethanol: 0.4 g/100ml (27 °C) Ether: 0.3 g/100ml (27 °C)
Partition coefficient n-octanol/water (Log Pow)	: 2.107 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Auto-ignition temperature	: No data available in the literature
Decomposition temperature	: 252 °C
Viscosity, kinematic	: 21.25 mm²/s (20 °C, OECD 114: Viscosity of Liquids)
Viscosity, dynamic	: 22.12 mPa·s (20 °C, OECD 114: Viscosity of Liquids)
Explosion limits	: No data available
Explosive properties	: No data available

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Oxidizing properties : No data available

9.2. Other information

VOC content : 0 %
Refractive index : 1.618 (1.61 – 1.626)
Other properties : Gas/vapour heavier than air at 20°C. Slightly volatile.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts slowly on exposure to air: peroxidation resulting in increased fire or explosion risk. Oxidizes slowly on exposure to light. Reacts with combustible materials: (increased) risk of fire. Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts violently on exposure to temperature rise with (some) acids/bases.

10.2. Chemical stability

Unstable on exposure to air. Unstable on exposure to light.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

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

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) : Harmful in contact with skin.
Acute toxicity (inhalation) : Not classified

CINNAMALDEHYDE (104-55-2)	
LD50 oral rat	2220 mg/kg (Rat, Oral)
LD50 dermal rabbit	1260 ml/kg (24 h, Rabbit, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat	68.88 mg/l (4 h, Rat, Male / female, QSAR, Inhalation)
ATE US (oral)	2200 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (vapors)	68.88 mg/l/4h
ATE US (dust, mist)	68.88 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.
pH: 4.7 (1 %, 30 °C, OECD 122: Partition Coefficient (n-Octanol/Water), pH-Metric Method for Ionisable Substances)

Serious eye damage/irritation : Causes serious eye irritation.
pH: 4.7 (1 %, 30 °C, OECD 122: Partition Coefficient (n-Octanol/Water), pH-Metric Method for Ionisable Substances)

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

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

Viscosity, kinematic : 21.25 mm²/s (20 °C, OECD 114: Viscosity of Liquids)

Potential Adverse human health effects and symptoms : Practically non-toxic if swallowed (LD50 oral, rat > 2000 mg/kg). Causes skin irritation. Harmful in contact with skin. Causes serious eye irritation.

Symptoms/effects after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Dry/sore throat. Coughing.

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Symptoms/effects after skin contact	: Irritation. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Eye irritation.
Symptoms/effects after ingestion	: Nausea. Abdominal pain. Vomiting. Irritation of the gastric/intestinal mucosa.
Chronic symptoms	: Red skin. Swelling of the skin. Skin rash/inflammation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.
Ecology - air	: Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Photooxidation in the air. Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	: Toxic to crustacea. Toxic to fishes. Inhibition of activated sludge. Harmful to algae. Hydrolysis in water.

CINNAMALDEHYDE (104-55-2)

LC50 - Fish [1]	4.15 mg/l (EU Method C.1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	3.21 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)

12.2. Persistence and degradability

CINNAMALDEHYDE (104-55-2)

Persistence and degradability	Readily biodegradable in water.
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12.3. Bioaccumulative potential

CINNAMALDEHYDE (104-55-2)

Partition coefficient n-octanol/water (Log Pow)	2.107 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

CINNAMALDEHYDE (104-55-2)

Surface tension	45.3 mN/m (20 °C, Experimental value)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.958 (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	Highly mobile in soil.

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Do not discharge into drains or the environment. Dispose of at authorized waste collection point. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.
Additional information	: Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT
Not regulated

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Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

CINNAMALDEHYDE (104-55-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

CINNAMALDEHYDE (104-55-2)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Revision date : 10/23/2023

Full text of H-phrases:

H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

NFPA health hazard

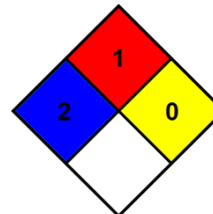
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 1 - Materials that must be preheated before ignition can occur.

NFPA reactivity

: 0 - Material that in themselves are normally stable, even under fire conditions.



SDS US (GHS HazCom 2012) - Lebermuth

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.