

# 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: 12/12/2024 Supersedes: 09/03/2024

# **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 / cinnamic aldehyde / cinnamyl aldehyde / FEMA NUMBER 2286 / phenylacrolein / zimtaldehyde

Version: 1.8

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**

Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2A

Skin sensitization, category 1A

Causes skin irritation
Causes serious eye irritation
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) : 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.

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.

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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	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 : 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 : 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

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.

# 5.3. Special protective equipment and precautions for fire-fighters

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.

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#### **SECTION 6: Accidental release measures**

#### 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 : Gloves (EN 374). Face shield (EN 166). Protective clothing (EN 14605 or EN 13034).

**Emergency procedures** Ventilate spillage area. Avoid contact with skin and eyes. Avoid breathing

dust/fume/gas/mist/vapors/spray.

#### For emergency responders 6.1.2.

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

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

: Evacuate unnecessary personnel. Stop leak if safe to do so. **Emergency procedures** 

#### **Environmental precautions**

Avoid release to the environment

Methods for cleaning up

#### Methods and material for containment and cleaning up

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

supply. Contain any spills with dikes or absorbents to prevent migration and entry into sewers

or streams. Stop leak, if possible without risk. Take up liquid spill into absorbent material.

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

#### 6.4. Reference to other sections

For further information refer to section 13.

# **SECTION 7: Handling and storage**

#### Precautions for safe handling 7.1.

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

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.

### 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.

Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources.

KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. (strong) bases. Information on mixed storage

(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.

: SUITABLE MATERIAL: glass. MATERIAL TO AVOID: aluminium. iron. synthetic material. Packaging materials

# **SECTION 8: Exposure controls/personal protection**

#### 8.1. **Control parameters**

# CINNAMALDEHYDE (104-55-2)

No additional information available

#### Appropriate engineering controls

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

### Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Chemical goggles or safety glasses

Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment







# **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Liquid.

Color : PALE YELLOW TO YELLOW

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 : 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 :

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

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) : Not classified
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)	2220 mg/kg body weight
ATE US (dermal)	1311660 mg/kg body weight
ATE US (vapors)	68.88 mg/l/4h
ATF 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.

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

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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**

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12.1. Toxicity		
Ecology - general	: Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.	
Ecology - air	<ul> <li>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).</li> <li>Photooxidation in the air. Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).</li> </ul>	
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.

# 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. Disp	posal methods
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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 : Do not discharge into drains or the environment. Disposa

: 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 regulated

## Transport by sea

Not regulated

#### Air transport

Not regulated

# **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 : 12/12/2024

Full text of H-phrases:

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 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.

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