

This Safety Data Sheet cancels and replaces all preceding SDS for this product.

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

050001 C4586

NATURAL & ARTIFICIAL FLAVOR (ROOTBEER TYPE)

© Firmenich product

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

Concentrated aromatic raw material.

Not for personal use in this form or concentration.

For manufacturing use only.

1.3 Details of the supplier of the safety data sheet

Colin McIntosh, PhD; Chemist

Firmenich Inc.

P.O. Box 5880

Princeton - New Jersey 08543 - USA

colin.mcintosh@firmenich.com

Tel.:+1.609.452.10.00 - Fax.:+1.609.275.72.38

1.4 Emergency telephone number

FOR INFORMATION OR IN AN EMERGENCY CALL CHEMTREC @ 1-800-424-9300 or 1-703-527-3887.

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) N° 1272/2008 [CLP/GHS]

H317 Skin Sensitization - Cat. 1

2.1.2 Classification according to 67/548/EEC or 1999/45/EC

Symbols:

Irritant

6161235

Risks Phrases:

R43 May cause sensitization by skin contact.

2.1.3 Additional information

Full text of R- and S-phrases: see section 16

2.2 Label elements

US

Reference:

Date of printing: 23-MAR-2011

Revised on: 01-Dec-2010 / v 6.1

Product: 050001 C4586 - NATURAL & ARTIFICIAL FLAV



This Safety Data Sheet cancels and replaces all preceding SDS for this product.

Hazard pictograms:



Signal Word:

Warning

Hazard Statements:

H317 May cause an allergic skin reaction.

Precautionary Statements:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should 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 soap and water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

Hazard Inducers:

Benzaldehyde, 4-Hydroxy-3-Methoxy-

2.3 Other hazards

No data available at this time.

6161235

3 COMPOSITION/INFORMATION ON INGREDIENTS

Food ingredient.

Contains:

Reference:

US

2.5 - 5.0% Benzoic acid, 2-hydroxy-, methyl ester

N° CAS: 0000119-36-8 / N° EINECS: 204-317-7

Classification: Xn - R22 GHS Classification:

Acute Toxicity (oral) - Cat. 4

1.0 - 2.5% Benzaldehyde, 4-hydroxy-3-methoxy-

N° CAS: 0000121-33-5 / N° EINECS: 204-465-2

Classification: Xi - R43 GHS Classification:

Skin Sensitization - Cat. 1

Revised on : 01-Dec-2010 / v 6.1

Date of printing : 23-MAR-2011

Product : 050001 C4586 - NATURAL & ARTIFICIAL FLAV

Page 2 / 8



This Safety Data Sheet cancels and replaces all preceding SDS for this product.

0.1 - 0.5% Benzene, 1-methoxy-4-(1-propenyl)-

N° CAS: 0000104-46-1 / N° EINECS: 203-205-5

Classification: Xi N - R51/53,R43

GHS Classification:

Skin Sensitization - Cat. 1

4 FIRST-AID MEASURES

4.1 Description of first aid measures

General information:

As in all cases of potential poisoning, Obtain medical advice immediately.

In case of eye contact:

In the event of contact with the eyes, irrigate with water for at least 15 minutes; obtain medical advice if irritation persists.

In case of inhalation:

In the event of exposure to vapors, immediately remove from the area to a fresh air environment.

In case of skin contact:

Remove contaminated clothes. Wash skin with large volumes of water.

If irritation persists, or any sign of tissue damage is apparent, obtain medical advice immediately.

In case of ingestion:

In the event of accidental ingestion, rinse mouth with water. Give up to one tumbler (half pint) of milk or water.

Obtain medical advise immediately.

Do not induce vomiting, obtain medical advise immediately.

4.2 Most important symptoms and effects, both acute and delayed

No information available on the product itself.

4.3 Indication of immediate medical attention and special treatment needed

None known.

5 FIRE-FIGHTING MEASURES

5.1 Extinguishing media

In the event of fire, adequate extinguishers should be used. Avoid inhalation of smoke and fumes. In case of insufficient ventilation, wear suitable respiratory equipment.

Cool fire exposed containers with water spray.

Extinguishing media: Foam, carbon dioxide or dry chemical.

5.2 Special hazard arising from the substance or mixture

Closed containers may build up pressure if exposed to heat (fire). Vapors form explosive mixtures with air and may travel to a source of ignition and flash back.

5.3 Advice for fire-fighters

No specific advice.

US

Reference:

6 ACCIDENTAL RELEASE MEASURES

6161235

Revised on: 01-Dec-2010 / v 6.1 Date of printing: 23-MAR-2011 Product: 050001 C4586 - NATURAL & ARTIFICIAL FLAV



This Safety Data Sheet cancels and replaces all preceding SDS for this product.

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Adequate protective gloves should be worn when handling spillages. No smoking. Avoid naked flames or other potential sources of ignition (eg. electrical equipment).

Avoid skin contamination and inhalation of vapour.

Individual washing routines should be followed after any potential contact.

Ensure adequate ventilation in working areas following accidental releases.

For emergency personnel:

Apply the same recommendations as section 6.1

6.2 Environmental precautions

Do not discharge directly into drains, air, into soil or into the aquatic environment.

6.3 Methods and material for containment and cleaning up

For containment:

Small spills can be wiped up with a cloth or paper. Standard absorbents can be used (saw dust, sand, vermiculite). Wear rubber gloves. Avoid contact with skin. If skin contact occurs, wash liberally with soap and water.

For cleaning-up:

Spillages should be disposed of in accordance with Governmental Regulations.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes.

Wear adequate protective gloves protection and eye/face protection.

No smoking. Avoid any sources of ignition.

Avoid exposing to high temperature during processing.

Do not ingest or apply to the skin as such. Good personal washing routines should be followed.

Maintain adequate local and general ventilation where product is handled.

7.1.1 Protective measures

Keep strict control of dust accumulation to a minimum. Maintain adequate local and general ventilation where product is handled. Avoid any sources of ignition.

7.1.2 Advice on general occupational hygiene

Good personal washing routines should be followed.

7.2 Conditions for safe storage, including any incompatibilities

It is good general practice to store in closed, preferably full, containers away from heat sources, and protected from extremes of temperature. Do not re-use the empty container.

Respect generals rules for compatibility storage.

7.3 Specific end use(s)

Not available at this time.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

US

Reference:

Revised on: 01-Dec-2010 / v 6.1 6161235 Date of printing: 23-MAR-2011 Product: 050001 C4586 - NATURAL & ARTIFICIAL FLAV



This Safety Data Sheet cancels and replaces all preceding SDS for this product.

8.2 Exposure controls

Avoid exposing to high temperature during processing.

Maintain adequate local and general ventilation where product is handled.

8.2.1 Appropriate engineering controls

Maintain adequate local and general ventilation where product is handled and dispensed.

8.2.2 Environmental exposure controls

Not available at this time. Minimize release to the environment.

8.3 Personal protection

Respiratory protection: Breathing of the vapors or dust particles may be hazardous. In the absence of appropriate engineering controls such as spot ventilation, ventilated enclosures, etc., workers should avail themselves of the appropriate respiratory protection.

Hand protection: Adequate Protective Gloves should be worn.

Eye protection: Adequate safety glasses should be used.

Skin protection: Wear protective clothing, overall if necessary to limit the odour contamination of personal

clothing. Individual washing routines should be followed after any potential contact.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

LIQUID Appearance:

Colour: DARK BROWN

Odour: Characteristic strong odour

> according to the commercial description of the substance.

pH: Not available Melting point/range (°C): Not available Initial boiling point/range (°C): Not available

Flash point (closed cup): > 142 Fahrenheit (> 61 Centigrade)

Evaporation rate: Not available Flammability (solid/gas): Not available Upper/lower flammability or explosive Not available

limits:

Vapor pressure (At 20°C in mm Hg)

6161235

Reference:

Calculated vapor pressure (At 20°C 22.5

in mm Hg):

US

Vapour density: Not available Relative density (d 20/20): 1.063 - 1.111 Water solubility (20°C): Not applicable Partition coef. (n-octanol/water): Not applicable Not available Auto-ignition temperature (°C): Decomposition temperature : Not available Viscosity: Not available

Date of printing: 23-MAR-2011

Revised on: 01-Dec-2010 / v 6.1

Product: 050001 C4586 - NATURAL & ARTIFICIAL FLAV



This Safety Data Sheet cancels and replaces all preceding SDS for this product.

Explosive properties : Not available Oxidizing properties : Not available

VOC Content less than: 7%

10 STABILITY AND REACTIVITY

10.1 Reactivity

No reaction known with water.

10.2 Chemical stability

Presents no significant reactivity hazard. Normally stable even at elevated temperatures and pressures. Avoid temperatures above or near to the flash point. Not pyrophoric nor reactive with water. Does not undergo explosive decomposition, is shock stable, and is not an oxygen donor. Does not form explosive mixtures with other organic materials. Will not undergo hazardous exothermic polymerization.

10.3 Possibility of hazardous reactions

Not known.

10.4 Conditions to avoid

Avoid temperatures above or at least 5 °C below flash point for any flammable liquids.

Do not heat closed containers.

Avoid contact with oxidizing agents.

10.5 Incompatible materials

Avoid strong oxidizing agents.

10.6 Hazardous decomposition products

Contact with water or storage under recommended conditions for one year should not produce dangerous decomposition products.

11 TOXICOLOGICAL INFORMATION

This preparation has not been subjected to toxicological testing as an entity but has been blended from materials with established toxicological bibliographies. In view of the difficulty of using current standard toxicological evaluation techniques to predict potential hazards to susceptible individuals or arising from unforeseeable potentiation, this preparation should be considered and handled as if it displayed health hazards and treated in consequence with all possible precaution.

12 ECOLOGICAL INFORMATION

This preparation has not been subjected to ecotoxicological testing as an entity. In view of the difficulty of using current standard ecotoxicological evaluation techniques to predict the impact of particular modes of release on vulnerable or localised parts of the ecosystem, this preparation should be considered and handled as if it displayed potential environmental hazards, and treated in consequence with all possible precaution.

13 DISPOSAL CONSIDERATIONS

Empty all containers using a two stage pumping system or draining until no free liquid remains Minimize release to the environment.

14 TRANSPORT INFORMATION

Revised on : 01-Dec-2010 / v 6.1

Reference : US 6161235 Date of printing : 23-MAR-2011

Product : 050001 C4586 - NATURAL & ARTIFICIAL FLAV

Page 6 / 8



This Safety Data Sheet cancels and replaces all preceding SDS for this product.

In case of accidental spillage or fire during transport, refer to instructions given under points 5, 6, 7 and 8 above.

14.1 UNO

UN-No: Not regulated

Proper Shipping Name: N/A Class: ---- Packing Group: ---

14.2 Land transport (ADR/RID)

UN-No: Not regulated

Proper Shipping Name: N/A Class: ----Packing group: ---

14.3 Sea transport (IMDG-Code)

UN-No: Not regulated

Proper Shipping Name: N/A Class: ---- Packing group: ---

14.4 Air transport (ICAO-IATA)

UN-No: Not regulated

Proper Shipping Name: N/A Class: ---- Packing group: ---

15 REGULATORY INFORMATION

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

NFPA Hazard Classification

Health: 2 Flammability: 2 Reactivity: 0

This mixture contains no toxic chemical or chemicals subject to reporting requirements of Section 313 of Title III of the Superfund Amendements and Reauthorization Act of 1986 and 29 CFR Part 1910.1200.

15.2 Chemical Safety Assessment

No data available at this time.

16 OTHER INFORMATION

16.1 Revisions

Revised on : 01-Dec-2010 / v 6.1

Reference : US 6161235

Date of printing : 23-MAR-2011

Product : 050004 C4505 NATURAL & ARTIFICIAL FLAV

Product: 050001 C4586 - NATURAL & ARTIFICIAL FLAV

Page 7 / 8



This Safety Data Sheet cancels and replaces all preceding SDS for this product.

01-Dec-2010: Version 1.0 - First version validated for publication

16.2 Key literature references

RIFM database
OECD SIDS
EU IUCLID
Supplier information

16.3 Risk & Safety Phrases used under section 2

R43	May cause sensitization by skin contact.
1170	may cause sensitization by skin contact.

S24 Avoid contact with skin. S37 Wear suitable gloves.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P272 Contaminated work clothing should 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 soap and water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P363 Wash contaminated clothing before reuse.

16.4 Risk Phrases used under section 3

Reference:

US

6161235

R22 Harmful if swallowed.

R43 May cause sensitization by skin contact.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the

aquatic environment.

We believe that the information contained herein is current as of the date of this Safety Data Sheet. Since the use of this information and the conditions of use of the product are not within the control of Firmenich, it is the user's obligation to determine conditions of safe use of the product.

Information contained in this document and related material is proprietary to Firmenich. Disclosure to third parties without the prior written consent of Firmenich except where required by applicable laws and regulations and/or reverse engineering are strictly prohibited.

Revised on: 01-Dec-2010 / v 6.1 Date of printing: 23-MAR-2011

Product : 050001 C4586 - NATURAL & ARTIFICIAL FLAV

Page 8 / 8