

# Firmenich

## Safety Data Sheet

According to Regulation (EC) No 1907/2006 (as amended)

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 C11784A**  
ARTIFICIAL BUTTER FLAVOR  
© 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.  
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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]

Skin Corrosion - Cat. 1A	H314
Eye Damage - Cat.1	H318
WARNING: CONTAINS VOLATILE FLAVORING CHEMICALS; BREATHING THESE CHEMICALS IN THE WORKPLACE MAY LEAD TO SEVERE LUNG DAMAGE.	USH99 7

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

#### **Symbols:**

C Corrosive

#### **Risks Phrases:**

R34 Causes burns.

##### 2.1.3 Additional information

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

#### 2.2 Label elements

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### Hazard pictograms:



### Signal Word:

Danger

### Hazard Statements:

H314 Causes severe skin burns and eye damage.  
H318 Causes serious eye damage.

### Precautionary Statements:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
P264 Wash thoroughly after handling.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

### Hazard Inducers:

Acetic Acid  
Propionic Acid  
Formic Acid  
Butyric Acid

### 2.3 Other hazards

WARNING: CONTAINS VOLATILE FLAVORING CHEMICALS; BREATHING THESE CHEMICALS IN THE WORKPLACE MAY LEAD TO SEVERE LUNG DAMAGE.

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

Mixture of aromatic substances.

Contains :

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20.0 - 30.0%	Propanoic acid, 2-hydroxy- N° CAS : 0000050-21-5 / N° EINECS: 200-018-0 Classification: Xi - R38,R41 GHS Classification: Eye Damage - Cat.1 Skin Irritation - Cat. 2
10.0 - 15.0%	acetic acid N° CAS : 0000064-19-7 / N° EINECS: 200-580-7 Classification: C - R35,R10 GHS Classification: Eye Damage - Cat.1 Skin Corrosion - Cat. 1A
2.5 - 5.0%	propionic acid N° CAS : 0000079-09-4 / N° EINECS: 201-176-3 Classification: C - R34 GHS Classification: Eye Damage - Cat.1 Skin Corrosion - Cat. 1B
2.5 - 5.0%	formic acid N° CAS : 0000064-18-6 / N° EINECS: 200-579-1 Classification: C - R35 GHS Classification: Eye Damage - Cat.1 Skin Corrosion - Cat. 1A
2.5 - 5.0%	butyric acid N° CAS : 0000107-92-6 / N° EINECS: 203-532-3 Classification: C - R34 GHS Classification: Eye Damage - Cat.1 Skin Corrosion - Cat. 1B

#### **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. Individuals showing evidence of inhalation exposure should be taken to an uncontaminated area. Obtain medical advice immediately.

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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 advice immediately.

Do not induce vomiting, obtain medical advice 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.

### **6 ACCIDENTAL RELEASE MEASURES**

#### 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.

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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 general rules for compatibility storage.

#### 7.3 Specific end use(s)

Not available at this time.

### **8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### 8.1 Control parameters

0000064-19-7 : ACETIC ACID (All forms)

NIOSH Recommended Exposure Limits (1994-JUN)

STEL (1994-JUN) : 15 ppm , 15 minutes (All forms)

STEL (1994-JUN) : 37 mg/m<sup>3</sup> , 15 minutes (All forms)

TWA (1994-JUN) : 10 ppm , 10 hours (All forms)

TWA (1994-JUN) : 25 mg/m<sup>3</sup> , 10 hours (All forms)

0000064-19-7 : Acetic acid (All forms)

ACGIH Threshold Limit Values (1994-SEP)

STEL (1994-SEP) : 15 ppm , 15 minutes (All forms)

STEL (1994-SEP) : 37 mg/m<sup>3</sup> , 15 minutes (All forms)

TWA (1994-SEP) : 10 ppm , 8 hours (All forms)

TWA (1994-SEP) : 25 mg/m<sup>3</sup> , 8 hours (All forms)

0000064-19-7 : Acetic acid (All forms)

OSHA Permissible Exposure Limits (1989-MAR)

TWA (1989-MAR) : 10 ppm , 8 hours (All forms)

TWA (1989-MAR) : 25 mg/m<sup>3</sup> , 8 hours (All forms)

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0000064-19-7 : Acetic acid (All forms)

OSHA Permissible Exposure Limits, Table Z-1 Limits for Air Contaminants (1993-JUN)

TWA (1993-JUN) : 10 ppm , 8 hours (All forms)

TWA (1993-JUN) : 25 mg/m<sup>3</sup> , 8 hours (All forms)

0000064-18-6 : FORMIC ACID (All forms)

NIOSH Recommended Exposure Limits (1994-JUN)

TWA (1994-JUN) : 5 ppm , 10 hours (All forms)

TWA (1994-JUN) : 9 mg/m<sup>3</sup> , 10 hours (All forms)

0000064-18-6 : Formic acid (All forms)

ACGIH Threshold Limit Values (1994-SEP)

STEL (1994-SEP) : 10 ppm , 15 minutes (All forms)

STEL (1994-SEP) : 19 mg/m<sup>3</sup> , 15 minutes (All forms)

TWA (1994-SEP) : 5 ppm , 8 hours (All forms)

TWA (1994-SEP) : 9.4 mg/m<sup>3</sup> , 8 hours (All forms)

0000064-18-6 : Formic acid (All forms)

OSHA Permissible Exposure Limits (1989-MAR)

TWA (1989-MAR) : 5 ppm , 8 hours (All forms)

TWA (1989-MAR) : 9 mg/m<sup>3</sup> , 8 hours (All forms)

0000064-18-6 : Formic acid (All forms)

OSHA Permissible Exposure Limits, Table Z-1 Limits for Air Contaminants (1993-JUN)

TWA (1993-JUN) : 5 ppm , 8 hours (All forms)

TWA (1993-JUN) : 9 mg/m<sup>3</sup> , 8 hours (All forms)

0000079-09-4 : PROPIONIC ACID (All forms)

NIOSH Recommended Exposure Limits (1994-JUN)

STEL (1994-JUN) : 15 ppm , 15 minutes (All forms)

STEL (1994-JUN) : 45 mg/m<sup>3</sup> , 15 minutes (All forms)

TWA (1994-JUN) : 10 ppm , 10 hours (All forms)

TWA (1994-JUN) : 30 mg/m<sup>3</sup> , 10 hours (All forms)

0000079-09-4 : Propionic acid (All forms)

ACGIH Threshold Limit Values (1994-SEP)

TWA (1994-SEP) : 10 ppm , 8 hours (All forms)

TWA (1994-SEP) : 30 mg/m<sup>3</sup> , 8 hours (All forms)

0000079-09-4 : Propionic acid (All forms)

OSHA Permissible Exposure Limits (1989-MAR)

TWA (1989-MAR) : 10 ppm , 8 hours (All forms)

TWA (1989-MAR) : 30 mg/m<sup>3</sup> , 8 hours (All forms)

### 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

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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 NIOSH approved 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

Appearance :	LIQUID
Colour :	YELLOW
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 limits :	Not available
Vapor pressure (At 20°C in mm Hg ) :	
Calculated vapor pressure (At 20°C in mm Hg):	31.1
Vapour density :	Not available
Relative density (d 20/20) :	1.054 - 1.102
Water solubility (20°C) :	Not applicable
Partition coef. (n-octanol/water) :	Not applicable
Auto-ignition temperature (°C):	Not available
Decomposition temperature :	Not available
Viscosity :	Not available
Explosive properties :	Not available
Oxidizing properties :	Not available
VOC Content less than:	52%

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity

No reaction known with water.

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### 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**

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: 1760  
Proper Shipping Name: CORROSIVE LIQUID, N.O.S. (ACETIC ACID;PROPIONIC ACID)



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Class: 8  
Packing Group: III

### 14.2 Land transport (ADR/RID)

UN-No: 1760  
Proper Shipping Name: CORROSIVE LIQUID, N.O.S. (ACETIC ACID;PROPIONIC ACID)  
Class: 8  
Packing group: III

### 14.3 Sea transport (IMDG-Code)

UN-No: 1760  
Proper Shipping Name: CORROSIVE LIQUID, N.O.S. (ACETIC ACID;PROPIONIC ACID)  
Class: 8  
Packing group: III

### 14.4 Air transport (ICAO-IATA)

UN-No: 1760  
Proper Shipping Name: CORROSIVE LIQUID, N.O.S. (ACETIC ACID;PROPIONIC ACID)  
Class: 8  
Packing group: III

## 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 a toxic chemical or chemicals subject to reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 29 CFR 1910.1200.

2.8% Acids

### 15.2 Chemical Safety Assessment

No data available at this time.

## 16 OTHER INFORMATION

### 16.1 Revisions

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

### 16.2 Key literature references

RIFM database  
OECD SIDS  
EU IUCLID  
Supplier information

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### 16.3 Risk & Safety Phrases used under section 2

R34	Causes burns.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.

### 16.4 Risk Phrases used under section 3

R10	Flammable.
R34	Causes burns.
R35	Causes severe burns.
R38	Irritating to skin.
R41	Risk of serious damage to eyes.

**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.**

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