

Firmenich

GHS Safety Data Sheet - US

According to Regulation HCS 2012

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 C26080
VANILLA FLAVOR
© Firmenich product

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

Ingredient for use in products that may be ingested.
Not for personal use in this form or concentration.
Intended to be used in the manufacture of products for consumers.

1.3 Details of the supplier of the safety data sheet

Mr. Thomas Sulich
Firmenich Inc.
P.O. Box 5880
Princeton - New Jersey 08543 - USA
thomas.sulich@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

According to Regulation HCS 2012

Skin Sensitization - Cat. 1 H317
WARNING: CONTAINS VOLATILE FLAVORING CHEMICALS; BREATHING THESE CHEMICALS
IN THE WORKPLACE MAY LEAD TO SEVERE LUNG DAMAGE.

Additional information

Full text of listed statements : See section 16

2.2 Label elements

Hazard pictograms:

Firmenich

GHS Safety Data Sheet - US

According to Regulation HCS 2012

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



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.

2.3 Other hazards

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

No data available at this time.

3 COMPOSITION/INFORMATION ON INGREDIENTS

The exact percentage (concentration) of composition has been withheld as a trade secret.

3.2 Mixture

Mixture of aromatic substances.

Contains :

$\geq 5.0 < 7.5\%$

Benzaldehyde, 3-Ethoxy-4-Hydroxy-

N° CAS : 0000121-32-4

N° EINECS: 204-464-7

GHS Classification:

Eye Irritation - Cat.2B [H320]

$\geq 2.5 < 5.0\%$

4h-Pyran-4-One, 2-Ethyl-3-Hydroxy-

N° CAS : 0004940-11-8

N° EINECS: 225-582-5

GHS Classification:

Acute Toxicity (oral) - Cat. 4 [H302]

Firmenich

GHS Safety Data Sheet - US

According to Regulation HCS 2012

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

$\geq 2.5 < 5.0\%$
Isopentyl Acetate
N° CAS : 0000123-92-2
N° EINECS: 204-662-3

GHS Classification:
Flammable Liquid - Cat. 3 [H226]

$\geq 1.0 < 2.5\%$
2-Butanone, 3-Hydroxy-
N° CAS : 0000513-86-0
N° EINECS: 208-174-1

GHS Classification:
Flammable Liquid - Cat. 3 [H226]
WARNING: CONTAINS VOLATILE FLAVORING CHEMICALS; BREATHING THESE CHEMICALS IN THE WORKPLACE MAY LEAD TO SEVERE LUNG DAMAGE. [USH997]

$\geq 0.5 < 1.0\%$
2-Propenal, 3-Phenyl-
N° CAS : 0000104-55-2
N° EINECS: 203-213-9

GHS Classification:
Skin Sensitization - Cat. 1A [H317]
Acute Toxicity (dermal) - Cat. 4 [H312]
Skin Irritation - Cat. 2 [H315]
Eye Irritation - Cat.2A [H319]

$\geq 0.1 < 0.5\%$
2,3-Pentanedione
N° CAS : 0000600-14-6
N° EINECS: 209-984-8

GHS Classification:
Eye Damage - Cat.1 [H318]
Specific Target Organ Toxicity - Repeated Exposure - Cat. 2 [H373]
Skin Sensitization - Cat. 1B [H317]
Flammable Liquid - Cat. 2 [H225]
WARNING: CONTAINS VOLATILE FLAVORING CHEMICALS; BREATHING THESE CHEMICALS IN THE WORKPLACE MAY LEAD TO SEVERE LUNG DAMAGE. [USH997]

$0 < 0.1\%$
3(2h)-Furanone, 4-
Hydroxy-2,5-Dimethyl-
N° CAS : 0003658-77-3
N° EINECS: 222-908-8

GHS Classification:
Skin Sensitization - Cat. 1A [H317]
Eye Irritation - Cat.2A [H319]

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.

In case of skin contact:

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

Firmenich

GHS Safety Data Sheet - US

According to Regulation HCS 2012

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

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.

Use standard procedures and preferred extinguishing media as stated below.

Extinguishing media: Foam, carbon dioxide or dry chemical.

5.2 Special hazard arising from the substance or mixture

None.

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.

For cleaning-up:

Spillages should be disposed of in accordance with Governmental Regulations.

Firmenich

GHS Safety Data Sheet - US

According to Regulation HCS 2012

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

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.

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.

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

0000123-92-2 : ISOAMYL ACETATE (All forms)

National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limits (REL)
(2010-SEP)

TWA (1994-JUN) : 100 ppm , 10 hours (All forms)
TWA (1994-JUN) : 525 mg/m³ , 10 hours (All forms)

0000123-92-2 : Isoamyl acetate (All forms)

American Conference of Governmental Industrial Hygienists (ACGIH) - Threshold Limit Values (TLV)
(2000-MAR)

STEL (2000-MAR) : 100 ppm , 15 minutes (All forms)
TWA (2000-MAR) : 50 ppm , 8 hours (All forms)

0000123-92-2 : Isoamyl acetate (All forms)

Occupational Safety and Health Administration (OSHA) (29 CFR 1910.1000 Z-1-A) - Permissible Exposure
Limits - 1989 vacated values (1989-MAR)

TWA (1989-MAR) : 100 ppm , 8 hours (All forms)
TWA (1989-MAR) : 525 mg/m³ , 8 hours (All forms)

0000123-92-2 : Isomyl acetate (All forms)

Occupational Safety and Health Administration (OSHA) 29 CFR 1910.1001 to 1910.1048 - Substance-
Specific Standards (1993-JUN)

Firmenich

GHS Safety Data Sheet - US

According to Regulation HCS 2012

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

TWA (1993-JUN) : 100 ppm , 8 hours (All forms)
TWA (1993-JUN) : 525 mg/m³ , 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.

Appropriate engineering controls

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

Environmental exposure controls

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

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 : | PALE YELLOW TO 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 : | |
| Vapor pressure (At 20°C in mm Hg) : | |
| Calculated vapor pressure (At 20°C in mm Hg): | 0.8 |
| Vapour density : | Not available |
| Relative density (d 20/20) : | 1.018 - 1.066 |
| Water solubility (20°C) : | Not applicable |
| Partition coef. (n-octanol/water) : | Not applicable |
| Auto-ignition temperature (°C): | Not available |
| Decomposition temperature : | Not available |

Firmenich

GHS Safety Data Sheet - US

According to Regulation HCS 2012

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

Viscosity : Not available
Explosive properties : Not available
Oxidizing properties : Not available

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 mixture has not been subjected to toxicological testing as an entity. According to available data on the constituents the health classification criteria are met.

12 ECOLOGICAL INFORMATION

This mixture has not been subjected to ecotoxicological testing as an entity. According to available data on the constituents the environmental classification criteria are not met.

13 DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: The product should be handled according to the instructions given under sections 6, 7 and 8. Dispose of according to local or national regulations. The product should not be allowed to enter drains or the environment.

Contaminated packaging: Empty packaging should be disposed according to local or national regulations by an approved waste handling

14 TRANSPORT INFORMATION

Firmenich

GHS Safety Data Sheet - US

According to Regulation HCS 2012

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.

UNO

UN-No: Not regulated
Proper Shipping Name: N/A
Class: ----
Packing Group: ---

Land transport (ADR/RID)

UN-No: Not regulated
Proper Shipping Name: N/A
Class: ----
Packing group: ---

Sea transport (IMDG-Code)

UN-No: Not regulated
Proper Shipping Name: N/A
Class: ----
Packing group: ---

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:

This mixture contains no 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 Part 1910.1200.

15.2 Chemical Safety Assessment

No data available at this time.

16 OTHER INFORMATION

Revisions

01-Dec-2010: Version 6.1 - First version validated for publication
04-May-2012: Version 6.2 - Updates to sections 1, 2, 3, 8.3, 11, 12, 16.
20-Apr-2013: Version 6.3 - Updates to sections 1, 2, 3, 8.1, 14, 16.
07-July-2014: Version 6.4- Updates to section 2, 3, 14, 16.
30-May-2015: Version 6.5- Updates to section 2, 3, 7, 8, 9,13,14,16
13-June-2016: Version 6.6 Updates to sections 2, 3, 16

Firmenich

GHS Safety Data Sheet - US

According to Regulation HCS 2012

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

02-Aug-2016: Version 6.7 – Updates to Sections 9, 15, 16

Key literature references

RIFM database
OECD SIDS
EU IUCLID
Supplier information

Full text of phrases used under section 2

| | |
|-----------|--|
| H317 | May cause an allergic skin reaction. |
| USH997 | WARNING: CONTAINS VOLATILE FLAVORING CHEMICALS; BREATHING THESE CHEMICALS IN THE WORKPLACE MAY LEAD TO SEVERE LUNG DAMAGE. |
| 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. |

Full text of phrases used under section 3

| | |
|--------|--|
| H225 | Highly flammable liquid and vapour. |
| H226 | Flammable liquid and vapour. |
| H302 | Harmful if swallowed. |
| H317 | May cause an allergic skin reaction. |
| H320 | Causes eye irritation. |
| USH997 | WARNING: CONTAINS VOLATILE FLAVORING CHEMICALS; BREATHING THESE CHEMICALS IN THE WORKPLACE MAY LEAD TO SEVERE LUNG DAMAGE. |

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.