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

909158 AMBROX® SUPER © Firmenich product

CAS No:	6790-58-5
EC No:	229-861-2
REACH No:	01-2120070784-50

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

Ingredient for use in products that may be ingested and/or fragrance ingredient for use in consumer product. 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

Firmenich Incorporated 250 Plainsboro Road Princeton New Jersey 08536 USA Tel: +1 609 452 10 00

GRS.Flavor.NAM@firmenich.com

1.4 Emergency telephone number

FOR INFORMATION OR IN AN EMERGENCY CALL NCEC @ +1 866 928 0789 (TOLL FREE) OR +1 215 207 0061.

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to Regulation HCS 2012

Not Classified according to the rules of the HCS 2012.

Additional information

Full text of listed statements : See section 16

2.2 Label elements

According to Regulation HCS 2012

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2.3 Other hazards No data available at this time.

<u>3 COMPOSITION/INFORMATION ON INGREDIENTS</u></u>

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

<u>3.1 Substance</u> Chemical substance.

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.

- <u>4.2 Most important symptoms and effects, both acute and delayed</u> No specific data available.
- <u>4.3 Indication of immediate medical attention and special treatment needed</u> No specific data available.

5 FIRE-FIGHTING MEASURES

According to Regulation HCS 2012

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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: Water, foam, carbon dioxide or dry chemical.

5.2 Special hazard arising from the substance or mixture

Product is a combustible powder. Like all combustible powders, it may form explosive mixtures if suspended in air.

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:

Gloves impervious to the chemical substance 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 dust.

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 swept up and disposed of properly.

Do not allow powder to accumulate on horizontal surfaces, as an explosive dust/air mixture could occur if suddenly dispersed into the air.

For cleaning-up:

Spillages should be disposed of in accordance with Governmental Regulations.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep strict control of dust accumulation to a minimum.

Avoid contact with skin and eyes.

Wear gloves impervious to the chemical substance and eye/face protection.

No smoking. Avoid any source of ignition. Use flameproof electrical equipment and spark-reduced tools.

Ensure that all equipments are properly bonding and earthing.

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.

According to Regulation HCS 2012

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

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 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

Contains no substances with occupational exposure limit values

Derived No Effect Level (DNEL)

Hazard conclusion Worker (dermal), No hazard identified. Hazard conclusion Worker (eyes), No hazard identified. Hazard conclusion Worker (inhalation), No hazard identified. Hazard conclusion Consumer (oral), No hazard identified. Hazard conclusion Consumer (inhalation), No hazard identified. Hazard conclusion Consumer (eyes), No hazard identified. Hazard conclusion Consumer (dermal), No hazard identified.

Predicted No Effect Concentration (PNEC)

Aqua (freshwater) No hazard identified. Aqua (marine water) No hazard identified. Sediment (freshwater) Insufficient hazard data available Sediment (marine water) Insufficient hazard data available STP No hazard identified. Soil Insufficient hazard data available Air No hazard identified. Oral (secondary poisoning) No potential to cause toxic effects if accumulated via food chain

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

According to Regulation HCS 2012

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

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. OSHA has established limits for Respirable dust (PEL of 5 mg/m3) TWA and Total dust (PEL of 15 mg/m3)TWA. It is recommended that when using powders that air monitoring of the workplace be conducted to ensure that these levels are not exceeded.

Hand protection: Gloves impervious to the chemical substance 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

CRYSTALLINE POWDER Appearance : Colour: WHITE Odour : Characteristic strong odour according to the commercial description of the substance. pH: Not applicable Melting point/range (°C) : = 63.6 °C (OECD 102) = 316 °C at 97.4kPa (OECD 103) Initial boiling point/range (°C) : Flash point (closed cup) : > 212 Fahrenheit (> 100 Centigrade) Evaporation rate : Not available Not applicable Flammability (solid/gas) : Explosive properties (St class) : N/A Vapor pressure (At 20°C in mm Hg): < 0.1 mm Vapour density : Not available = 1.052 at 20°C (OECD 109) Relative density (d 20/20) : Water solubility (20°C) : Data on analogue - = 1.88 mg/l at 20°C (OECD 105) Partition coef. (n-octanol/water) : Data on analogue - Log Kow = 5.09 (OECD 123) Auto-ignition temperature (°C) : Not available Decomposition temperature : Not available Viscosity : Not available Not available Oxidizing properties :

9.2 Other safety information

9.2.1 Explosive properties (Measured)

No data available at this time.

10 STABILITY AND REACTIVITY

Reference : US 21102632

Revised on : 26 February 2022 / v 11 Date of printing : 26-JUL-2022 Product : 909158 - AMBROX® SUPER

According to Regulation HCS 2012

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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

11.1 Information on toxicological effects

(a) acute toxicity Acute oral toxicity (Rat, OECD 401, Gavage): LD50 > 2000 mg/kg Acute dermal toxicity (Rabbit, Occlusive): LD50 > 2000 mg/kg Acute Toxicity by inhalation (Rat, Mist): LC50 > 1 % (nominal)

(b) skin corrosion/irritation Primary Skin irritation (Rabbit, OECD 404, Semi-static): Non irritant

(c) serious eye damage/irritation Acute Eye irritation (Rabbit, OECD 405): Non irritant

(d) respiratory or skin sensitisation Skin sensitization : Non-sensitising to skin (Conclusion of weight of evidence based 2 studies)

(e) germ cell mutagenicity Bacterial Reverse Mutation test (Salmonella + E. Coli, With and without S9): Non mutagenic (Conclusion of weight of evidence based 2 studies)

According to Regulation HCS 2012

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

Data on analogue - In vitro mammalian cell gene mutation test (Chinese hamster, OECD 476, With and without S9): Non mutagenic

Data on analogue - In vitro Mammalian Chromosome Aberration Test (Chinese hamster, OECD 473): No chromosomal aberration

(f) carcinogenicity No data available

(g) reproductive toxicity
Data on analogue - Combined Repeat. Dose Tox. & Reprod./Develop. Tox. Screening (Rat, OECD 422, Gavage, 28 day(s)):
NOAEL = 800 mg/kg/day
NOAEL (fertility) = 800 mg/kg/day
NOAEL (development) = 800 mg/kg/day

(h) STOT-single exposure No data available

(i) STOT-repeated exposure No data available

(j) aspiration hazard No data available

12 ECOLOGICAL INFORMATION

12.1 Toxicity

Data on analogue - Alga, Growth Inhibition Test (Pseudokirchneriella subcapitata, OECD 201, Static):

72 ErC50 > 1.4 mg/l (Based on average measured concentrations)

72 NOEC > 1.4 mg/l (Based on average measured concentrations)

Daphnia sp. Acute Immobilisation Test (OECD 202, Static): 48h EC50 > 0.92 mg/l (Based on nominal concentrations)

Data on analogue - Fish, Acute Toxicity Test (Zebra fish, OECD 203, Static): 96 LL50 > 100 mg/l (Based on nominal concentrations)

12.2 Persistence and degradability Ready Biodegradation - Manometric Respirometry Test (OECD 301F, Sludge): Readily biodegradable (71% in 28 day(s))

12.3 Bioaccumulative potential Data on analogue - Log Kow = 5.09 (OECD 123)

12.4 Mobility in soil No data available

12.5 Results of PBT and vPvB assessment

According to Regulation HCS 2012

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

Not applicable

12.6 Other adverse effects No data available

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

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

According to Regulation HCS 2012

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

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

This chemical is NOT 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

Revisions

February-2022 : Version 11 - Updates to sections 1, 2, 3 ,8 ,9, 11, 12, 14, 15, 16

Key literature references RIFM database OECD SIDS EU IUCLID Supplier information

Full text of phrases used under section 2

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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