dsm-firmenich

GHS Safety Data Sheet

According to Regulation ST/SG/AC.10/30/Rev.8 UN GHS

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

909120
AMBROX® DL
dsm-firmenich product

CAS No:	3738-00-9
EC No:	
EU REACH No:	01-2120094518-45

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

Fragrance ingredient for use in consumer products.
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 Asia Private Ltd
No 10 Tuas West Road
Singapore 638377
SINGAPORE
Tel: +(65) 6347 2888

P&B.RA.ASIA@dsm-firmenich.com

1.4 Emergency telephone number

+65 3158 1074 NCEC - Available 24/7

2 HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

2.1.1 Classification according to Regulation ST/SG/AC.10/30/Rev.8 [UN/GHS]

Reproductive Toxicity - Cat. 2	H361
Environmental Hazard (chronic) - Cat. 2	H411

2.1.2 Additional information

Full text of listed statements : See section 16

2.2 Label elements

Hazard pictograms:





Signal Word:
Warning

Hazard Statements:

H361	Suspected of damaging fertility or the unborn child.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statements:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P391	Collect spillage.

2.3 Other hazards

No data available at this time.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Chemical substance.

Contains :
>= 99.0 <= 100.0%
Dodecahydrotetramethylnaphthofuran
N° CAS : 0003738-00-9
N° EC: --
N° EU REACH: 01-2120094518-45

GHS Classification:
Reproductive Toxicity - Cat. 2 [H361]
Environmental Hazard (chronic) - Cat. 2 [H411]

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:

Irrigate copiously with water for at least 10 minutes. Obtain medical advice if any irritation or evidence of tissue damage persists.

In case of inhalation:
Remove the individual to fresh air and keep at rest. Obtain medical advice immediately.

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:
Rinse mouth with water. Obtain medical advice immediately.

4.2 Most important symptoms and effects, both acute and delayed
No specific data available.

4.3 Indication of immediate medical attention and special treatment needed
No specific data available.

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.

5.2 Special hazard arising from the substance or mixture
No specific hazard known.

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 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:

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 adequate protective gloves protection 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.

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

Contains no substances with occupational exposure limit values

Derived No Effect Level (DNEL)
Hazard conclusion Worker (dermal), 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 (dermal), No hazard identified.

Predicted No Effect Concentration (PNEC)
PNEC Aqua (freshwater) = 0.027 mg/l
PNEC Aqua (marine water) = 2.7 µg/l
PNEC Water (intermittent release) freshwater = 14 µg/l

PNEC Water (intermittent release) marine water = 27 µg/l
PNEC Sediment (freshwater) = 14.27 mg/kg sediment dw
PNEC Sediment (marine water) = 1.43 mg/kg sediment dw
PNEC STP = 100 mg/l
PNEC Soil = 2.84 mg/kg soil dw
PNEC Air No hazard identified.
PNEC Oral (secondary poisoning) = 53.33 mg/kg food

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: Where ventilation (LEV) is inadequate to prevent any inhalation of substances, use adequate respiratory apparatus.
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 :	SOLID
Colour :	COLOURLESS TO VERY PALE YELLOW
Odour :	Characteristic strong odour according to the commercial description of the substance.
Melting point/range (°C) :	= 65 °C
Initial boiling point/range (°C) :	= 318 °C
Flammability :	Not expected
Explosive properties (St class) :	Not applicable, the product is a solid.
Flash point (closed cup) :	> 100°C
Auto-ignition temperature (°C) :	Not applicable, the product is a solid.
Decomposition temperature :	No decomposition if stored and applied as directed.
pH :	Not determined
Water solubility (20°C) :	= 1.87 mg/l at 20°C (OECD 105)
Partition coef. (n-octanol/water) :	Data on analogue - Log Kow = 5.09 (OECD 123)
Vapour pressure (Pa) :	VP = 0.236 Pa at 25°C (OECD 104)
Relative density (d 20/20) :	= 1.04 at 20.6°C (OECD 109)

9.2 Other safety information

9.2.1 Explosive properties (Measured)

No data available at this time.

10 STABILITY AND REACTIVITY

10.1 Reactivity
No reaction known with water.

10.2 Chemical stability
Good stability at standard temperature.

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
Not known.

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 420, Gavage): LD50 > 2000 mg/kg
Data on analogue - Acute dermal toxicity (Rabbit, Occlusive): LD50 > 2000 mg/kg

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

(c) serious eye damage/irritation
Acute Eye irritation (Rabbit, OECD 405, No washout): Non irritant

(d) respiratory or skin sensitisation
Buehler test (OECD 406) (Guinea pig): Non-sensitising to skin

(e) germ cell mutagenicity
Bacterial Reverse Mutation test (Ames) (Salmonella, OECD 471, With and without S9, 7 strains): Non mutagenic
In vitro Mammalian Cell Micronucleus Test (Human, OECD 487, With and without S9): Non mutagenic
In vitro Mammalian Cell Gene Mutation Tests Using the Thymidine Kinase Gene (OECD 490, ACD/ST): Non mutagenic

(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
Data on analogue - Prenatal development toxicity study (Rat, OECD 414):
NOAEL (maternal) = 400 mg/kg/day
NOAEL (development) = 400 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
QSAR - Alga, Growth Inhibition Test (iSafeRat® HA-QSAR):
72 h EL50 > 2.73 mg/l (Based on nominal concentrations)
72 h NOELR > 2.7 mg/l (Based on nominal concentrations)
QSAR - Daphnia sp. Acute Immobilisation Test (iSafeRat® HA-QSAR): 48h EL50 > 2.73 mg/l (Based on nominal concentrations)
QSAR - Fish, Acute Toxicity Test (iSafeRat® HA-QSAR): 96h LL50 > 2.73 mg/l (Based on nominal concentrations)
Activated Sludge, Respiration Inhibition Test (OECD 209):
3h EC50 > 1000 mg/l
3h NOEC > 1000 mg/l
Daphnia magna Reproduction Test (OECD 211, 21 day(s)):
NOEL = 0.128 mg/l (Based on nominal concentrations)
EL10 = 0.268 mg/l (Based on nominal concentrations)
QSAR - Fish, Early-Life Stage Toxicity Test (QSAR-OECD210, 32 day(s)): EC10 = 0.46 mg/l (Based on nominal concentrations)

12.2 Persistence and degradability

Ready Biodegradation - Closed Bottle Test (OECD 301D, Sludge):
Non readily biodegradable (32% in 28 day(s))
Not persistent (62% in 60 day(s))

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

12.4 Mobility in soil
Adsorption coefficient (OECD 121): Log Koc = 3.72

12.5 Results of PBT and vPvB assessment
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

14.1 UN-No:	3077
14.2 Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Dodecahydro-3a,6,6,9a-tetramethylnaphtho(2,1-b)furan)
14.3 Class:	9
14.4 Packing Group:	III
14.5 Environmental hazards:	Yes

Land transport (ADR/RID)

14.1 UN-No:	3077
14.2 Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DODECAHYDRO-3A,6,6,9A-TETRAMETHYLNAPHTHO(2,1-B)FURAN)
14.3 Class:	9
14.4 Packing Group:	III
14.5 Environmental hazards:	Yes

14.6 Special precautions for user:	Refer to section 7

Sea transport (IMDG-Code)

14.1 UN-No:	3077
14.2 Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (DODECAHYDRO-3A,6,6,9A-TETRAMETHYLNAPHTHO(2,1-B)FURAN)
14.3 Class:	9
14.4 Packing Group:	III
14.5 Environmental hazards:	Yes
Marine pollutant:	Yes
14.6 Special precautions for user:	Refer to section 7
14.7 Maritime transport in bulk according to IMO instruments:	Not applicable

Air transport (ICAO-IATA)

14.1 UN-No:	3077
14.2 Proper Shipping Name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Dodecahydro-3a,6,6,9a-tetramethylnaphtho(2,1-b)furan)
14.3 Class:	9
14.4 Packing Group:	III
14.5 Environmental hazards:	Not applicable
14.6 Special precautions for user:	Refer to section 7
14.7 Maritime transport in bulk according to IMO instruments:	Not applicable

15 REGULATORY INFORMATION

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

No relevant information available at this time.

15.2 Chemical Safety Assessment

No data available at this time.

16 OTHER INFORMATION

16.1 Revisions

March-2025 : Version 14.0 - Updates to sections 2, 3, 9, 14, 16

16.2 Key literature references

RIFM database
OECD SIDS
EU IUCLID
Supplier information

16.3 Full text of phrases used under section 2

H361	Suspected of damaging fertility or the unborn child.
H411	Toxic to aquatic life with long lasting effects.
P201	Obtain special instructions before use.
P273	Avoid release to the environment.
P202	Do not handle until all safety precautions have been read and understood.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P391	Collect spillage.
P308+P313	IF exposed or concerned: Get medical advice/attention.

16.4 Full text of phrases used under section 3

H361	Suspected of damaging fertility or the unborn child.
H411	Toxic to aquatic life with long lasting effects.

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 dsm-firmenich, it is the user's obligation to determine conditions of safe use of the product.

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