

SECTION 1. Identification of the substance/mixture and of the company/enterprise

1.1. Product identifier

Product name : AROMAX B4 Liquid
Product code: refer to sales department

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

Specific Treatment
Sectors of use:
Manufacture of food products[SU4]
Product category:
Process aid for enological use

Not recommended uses
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

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1.4. Emergency telephone number

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SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:
GHS05

Hazard Class and Category Code(s):
Skin Corr. 1, Eye Dam. 1

Hazard statement Code(s):
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.

Corrosive product: causes severe skin burns and eye damage.
If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):
GHS05 - Danger

Hazard statement Code(s):
H314 - Causes severe skin burns and eye damage.

Supplemental Hazard statement Code(s):
not applicable

Precautionary statements:

Prevention

P260 - Do not breathe vapours/spray.

P280 - Wear protective gloves/clothing and eye/face protection.

Response

P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.



P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

P304+P340 - IF INHALED: Remove person to fresh air and keep 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.

Contains:

L-(+)-tartaric acid, L-Malic Acid

Ingredients: aL-Ascorbic Acid 5,5%, L-Malic Acid 3,3%, L-(+)-tartaric acid 2,7%, mixture of ellagic tannin and gall tannin. Food use, oenological use. Not intended for the final consumer. In accordance with current regulation on the specific matter. Only for industrial use.

2.3. Other hazards

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

SECTION 3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
L-Malic acid	>= 3 < 5%	Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335		97-67-6	202-601-5	
L-(+)-tartaric acid	>= 2,5 < 3%	Eye Dam. 1, H318		87-69-4	201-766-0	01-2119537 204-47-xxxx

SECTION 4. First aid measures

4.1. Description of first aid measures

Inhalation:

Ventilate the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product):

Take off immediately contaminated clothing.
In case of contact with skin, wash immediately with water.
Immediately consult a physician.

Direct contact with eyes (of the pure product):

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately

Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

Ingestion:

Drink water with egg white; do not give bicarbonate.

Absolutely do not induce vomiting or emesis. Seek medical advice immediately.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

Immediately call a POISON CENTER or a doctor.

SECTION 5. Firefighting measures

5.1. Extinguishing media

Suggested extinguishing media:

Water spray, CO₂, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing media to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

Use protection for the breathing apparatus

Safety helmet and full protective clothing.

The water spray can be used to protect the people involved in the extinction.

You may also use self-contained breathing apparatus, especially when working in confined and poorly ventilated areas.

Keep containers cool with water spray

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke

Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Provide a sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spills with earth or sand.

If the product has entered a watercourse, sewers or has contaminated soil or vegetation, notify the authorities.
Dispose of the waste material in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 Containment:

Rapidly recover the product, wear a mask and protective clothing (for specifications refer to section 8.2. SDS)
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material or suck it.
Prevent it from entering the sewer system.

6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapors
Wear protective gloves/clothing and eye/face protection.
In residential areas do not use on large surfaces.
At work do not eat or drink.
See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabelled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Store in a cool and dry place, away from heat sources and direct exposure to sunlight.

7.3. Specific end use(s)

Manufacture of food products:
Handle with care.
Store in a clean, dry, ventilated area away from heat and direct sunlight.
Keep container tightly closed.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

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Related to contained substances:
L-(+)-tartaric acid:

Limit value - Eight hours

(ppm)/(mg/m³)
Germany (AGS): x/2(1)
Germany (DFG): x/2(1)
Switzerland: x/2(1)

Limit value - Short term
(ppm)/(mg/m³)

Germany (AGS): x/4(1)(2)
Germany (DFG): x/4(1)(2)
Switzerland: x/4(1)(2)

Remarks

Germany (AGS): (1) Inhalable fraction (2) 15 minutes average value
Germany (DFG): (1) Inhalable fraction (2) 15 minutes average value
Switzerland: (1) Inhalable fraction (2) 15 minutes average value

- Substance: L-(+)-tartaric acid
DNEL

Systemic effects Long term Workers inhalation = 5,2 (mg/m³)
Systemic effects Long term Workers dermal = 2,9 (mg/kg bw/day)
Systemic effects Long term Consumers inhalation = 1,3 (mg/m³)
Systemic effects Long term Consumers dermal = 1,5 (mg/kg bw/day)
Systemic effects Long term Consumers oral = 8,1 (mg/kg bw/day)

8.2. Exposure controls



Appropriate engineering controls:
Manufacture of food products:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

8.2.2 Individual protection measures:

(a) Eye / face protection

When handling the pure product use safety glasses (EN 166).

(b) Skin protection

(i) Hand protection

When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

(ii) Other

When handling the pure product, wear full protective clothing (generic workwear / antacid, safety shoes S3-EN ISO 20345) or other protective equipment, according to the instructions of the employer

(c) Respiratory protection

Not needed for normal use.

During manual operations in case of insufficient ventilation, use suitable protective mask (EN 143) unless otherwise specified by the employer and / or by evaluations of environmental hygiene investigations

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

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Related to contained substances:

L-Malic acid:

Personal protective equipment

General protective and hygienic measures

When using do not eat, drink or smoke.

Hand protection: Use protective gloves.

Eye Protection: Use safety glasses snug.

Additional information about design of technical systems

The workplace must be adequately ventilated. Where possible, install sources of local exhaust ventilation and good general extraction bulk material. If these measures are not sufficient to maintain concentrations of particulates and solvent vapors below the exposure limit, you will need to make use of appropriate respiratory protection.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	liquid	
Colour	Brown	
Odour	not determined as it is considered not relevant for the characterization of the product	
Odour threshold	not determined as it is considered not relevant for the characterization of the product	
pH	2.0 ± 0.5 (20 ° C)	
Melting point/freezing point	not determined as it is considered not relevant for the characterization of the product	
Initial boiling point and boiling range	not determined as it is considered not relevant for the characterization of the product	
Flash point	not determined as it is considered not relevant for the characterization of the product	ASTM D92
Evaporation rate	not determined as it is considered not relevant for the characterization of the product	
Flammability (solid, gas)	not determined as it is considered not relevant for the characterization of the product	
Upper/lower flammability or explosive limits	not determined as it is considered not relevant for the characterization of the product	
Vapour pressure	not determined as it is considered not relevant for the characterization of the product	
Vapour density	not determined as it is considered not relevant for the characterization of the product	
Relative density	1.05 ± 0.05 (20 ° C)	
Solubility	in water	
Water solubility	miscible in all proportions	
Partition coefficient: n-octanol/water	not determined as it is considered not relevant for the characterization of the product	

Physical and chemical properties	Value	Determination method
Auto-ignition temperature	not determined as it is considered not relevant for the characterization of the product	
Decomposition temperature	not determined as it is considered not relevant for the characterization of the product	
Viscosity	not determined as it is considered not relevant for the characterization of the product	
Explosive properties	not determined as it is considered not relevant for the characterization of the product	
Oxidising properties	not determined as it is considered not relevant for the characterization of the product	

9.2. Other information

No data available.

SECTION 10. Stability and reactivity

10.1. Reactivity

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Related to contained substances:

L-Malic acid:

There is no specific information about this product.

L-(+)-tartaric acid:

Reacts with the basics

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

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Related to contained substances:

L-Malic acid:

Avoid exposing the product to high temperatures. Avoid moisture.

L-(+)-tartaric acid:

None

10.5. Incompatible materials

Acids, oxidants, NaNO₂, NaNO₃

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11. Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

ATE(mix) oral = ∞
ATE(mix) dermal = ∞
ATE(mix) inhal = ∞

(a) acute toxicity: L-Malic acid: Ingestion - LD50 rat (mg / kg / 24h bw): not available

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): not available

Inhalation - LD50 rat (mg / l / 4h): not available

L-(+)-tartaric acid: Ingestion - LD50 rat (mg / kg / 24h bw):> 2000

Skin contact - LC50 rat / rabbit (mg / kg / 24h bw):> 2000

Inhalation - LD50 rat (mg / l / 4h): nd

(b) skin corrosion/irritation: Corrosive product: causes severe skin burns and eye damage.

L-(+)-tartaric acid: Not corrosive

L-(+)-tartaric acid: Not Irritant in vivo test OECD 404: acute skin irritation / corrosion. The study can be classified as Klimisch code 1: unrestricted reliability. The results showed that no toxic effects were found and two other in vitro studies also support this finding. Hence the irritative effect of tartaric acid can be concluded as non-irritating.

(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage. - If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

L-(+)-tartaric acid: Corrosive in vitro test OECD 437: This study is considered a key study as it can be classified as Klimisch code 1: unrestricted reliability. Therefore the test result showed that tartaric acid is highly irritating.

L-(+)-tartaric acid: Irritant in vitro test OECD 437: This study is considered a key study as it can be classified as Klimisch Code 1: Unrestricted Reliability Therefore the test result showed that tartaric acid is highly irritating.

(d) respiratory or skin sensitisation: L-(+)-tartaric acid: Not sensitizing

(e) germ cell mutagenicity: L-(+)-tartaric acid: Not mutagenic

(f) carcinogenicity: L-(+)-tartaric acid: Not available

(g) reproductive toxicity: L-(+)-tartaric acid: Non toxic

(h) specific target organ toxicity (STOT) single exposure: L-(+)-tartaric acid: Non toxic

(i) specific target organ toxicity (STOT) repeated exposure: L-(+)-tartaric acid: Non toxic

(j) aspiration hazard: L-(+)-tartaric acid: Non toxic

11.2. Information on other hazards

No data available.

SECTION 12. Ecological information

12.1. Toxicity

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Related to contained substances:

L-Malic acid:

Acute toxicity - fish LC50 (mg / l / 96h): not available

Acute toxicity - crustaceans EC50 (mg / l / 48h): not available

Acute toxicity algae ErC50 (mg / l / 72-96h): not available

Chronic toxicity - fish NOEC (mg / l): not available

Chronic toxicity - shellfish NOEC (mg / l): not available

Chronic toxicity algae NOEC (mg / l): not available

L-(+)-tartaric acid:

Acute toxicity-fish LC50 (mg/l/83d): 1385.96

Acute toxicity-crustacea EC50 (mg/l/48 h): 766.22

Acute algae toxicity ErC50 (mg/l/72-69): 600

Chronic toxicity-fish NOEC (mg/l): n.a.

Chronic toxicity-crustaceans NOEC (mg/l): n.a.

Chronic toxicity algae NOEC (mg/l): n.a.

Use according to good working practices and avoid to disperse the product into the environment.

12.2. Persistence and degradability

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Related to contained substances:

L-Malic acid:

Unavailable

L-(+)-tartaric acid:

OECD guideline 301 C (determination of the ready biodegradability) essay M.I.T.I. (method c. 4-F)

76% after 14 days ' consumption of O2:

TOC: 100% after 14 days

Material tested: 100% after 14 days

Readily biodegradable

OECD guideline 301 C (determination of the ready biodegradability) essay M.I.T.I. (method c. 4-F)

O2 consumption: 75% after 14 days

TOC: 92% after 14 days

Material tested: 100% after 14 days

Readily biodegradable

12.3. Bioaccumulative potential

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Related to contained substances:

L-Malic acid:

Not bioaccumulative

L-(+)-tartaric acid:

Tartaric acid is an organic acid naturally present in many plants, particularly grapes, abundant both in its free form that the form of salt. Bioaccumulation data are not available on the relevant aquatic species. However, with a measured value of octanol/water partition coefficient logKow < 3, do not expect that the substance is bioaccumulative.

12.4. Mobility in soil

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Related to contained substances:

L-Malic acid:

Unavailable

L-(+)-tartaric acid:

There are no data about the mobility in the soil of the substance. Such data were not generated in that direct or indirect exposure of soil is unlikely given that working conditions provided, guarantee the absence of environmental release of the substance. Furthermore, as indicated in column 2 of annex VIII of the REACH regulation, the study shall not be accomplished as tartaric acid and its salts have a low potential for adsorption, octanol water coefficient confirmed by a low.

12.5. Results of PBT and vPvB assessment

No PBT/vPvB ingredient is present

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No adverse effects

SECTION 13. Disposal considerations

13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.

Recover if possible. Operate according to local or national regulations

SECTION 14. Transport information

14.1. UN number or ID number

ADR/RID/IMDG/ICAO-IATA: 3265

If subject to the following characteristics is ADR exempt:

Combination packagings: per inner packaging 1 L per package 30 Kg

Inner packaging placed in shrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 Kg



14.2. UN proper shipping name

ADR/RID/IMDG: LIQUIDO ORGANICO CORROSIVO, ACIDO, N.A.S. (Acido Tartarico e Acido Malico in miscela)

ADR/RID/IMDG: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Tartaric Acid and Malic Acid in mixture)

ICAO-IATA: CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Tartaric Acid and Malic Acid in mixture)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 8
ADR/RID/IMDG/ICAO-IATA: Label : 8
ADR: Tunnel restriction code : E
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 L
IMDG - EmS : F-A, S-B

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: II

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous
IMDG: Marine polluting agent : No

14.6. Special precautions for user

The transport must be carried out by authorized vehicles for the transport of dangerous goods in accordance with the requirements of the applicable Edition of the agreement A.D.R. and national provisions. The transport must be carried out in the original packaging and in packages that are made from materials resistant to content and not likely to generate with this dangerous reactions. The process of loading and unloading of dangerous goods have received adequate training on the risks presented by prepared and on possible procedures to be taken in the event of emergency situations

14.7. Maritime transport in bulk according to IMO instruments

Transport in bulk is not foreseen

SECTION 15. Regulatory information

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

Restrictions relating to the product or contained substances (All. XVII Reg. EC 1907/2006): not applicable
Substances in Candidate List (art. 59 Reg. EC 1907/2006): the product does not contain SVHC
Substances subject to authorisation (Ann. XIV Reg. CEC 1907/2006): the product does not contain SVHC
Reg. EC 648/04: see 2.2
Reg. (EU) n. 1169/2011: see 2.2
Reg (UE) 528/2012: see.to 2.2

REGULATION (EU) No 1357/2014 - waste:
HP8 - Corrosive

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION 16. Other information

16.1. Other information

Description of hazard statements set out in paragraph 3

H315 = Causes skin irritation.

H319 = Causes serious eye irritation.

H335 = May cause respiratory irritation.

H318 = Causes serious eye damage.

Classification based on data of all mixture components

Main normative references:

Reg. (CE) n. 1907 del 18/12/06 REACH (Registration, Evaluation and Authorisation of CHemicals) et seq.

Reg. (CE) 1272/2008 CLP (Classification Labelling and Packaging) et seq.

Regulation (EC) n. 648 of 31/03/04 (on detergents) et seq.

Regulation (UE) n. 1169/2011 (on the provision of food information to consumers)

Directive 2012/18/EU (on the control of major-accident hazards involving dangerous substances) et seq.

Regulation (UE) 528/2012 (Biocides) et seq.

Procedure used to classify under CLP mixture (Reg . EC 1272/2008):

H314 Skin. Corr. 1A: On the basis of experimental data / Calculation Method

Other hazards: Calculation Method

Training required: This document must be submitted to the employer to determine the possible need for appropriate training for workers to ensure protection of human health and the environment.

n.a.: not applicable

n.d.: not available

ADR: Accord européen relative au transport International des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

ATE: Acute Toxicity Estimati

BFC: BioconCentration Factor

BOD: Biochemical Oxigen Demand

CAS: Chemical Abstract Service number

CAP: Centre AntiPoison

CE/EC number EINECS (European Inventory of existing Commercial Substances) e ELINCS (European List of notified Chemical Substances)

CL50/LC50: Lethal Concentration 50

DL50/LD50: Lethal Dose 50

COD: Chemical Oxygen Demand

DNEL: Derived No Effect Level

EC50: half maximal Effective Concentration

ERC: Enviroment Release Classes

EU/UE: European Union

IATA: International Air Transport Association

ICAO: International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods code

Kow: Octanol water partition coefficient

NOEC: No Observed Effect Concentration

OEL: Occupational Exposure Limit

PBT: Persistent Bioaccumulative and Toxic

PC: Product Categories

PNEC: Predicted No Effect Concentration

PROC: Process Categories

RID: Règlement concernant le transport International ferroviaire des marchandises dangereuses (Regulations concerning International rail transport of dangerous goods)

STOT: Target Organ Systemic Toxicity

STOT (RE): Repeated Exposure

STOT (SE): Single Exposure

STP: Sewage Treatment Plants

SU: Sector of Use

SVCH: Substance of Very High Concern

TLV: Threshold Limit Value

vPvB: Very Persistent Very Bioaccumulative

References and Sources:

- ECHA Registered Substances:
- <https://echa.europa.eu/web/guest/information-on-chemicals/registered-substances>
- SDS supplier
- GESTIS DNEL Database: <http://www.dguv.de/ifa/gestis/gestis-dnel-datenbank/index-2.jsp>
- GESTIS International Limit Value: <http://limitvalue.ifa.dguv.de>

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Changes to the previous edition: label variation.
