



SAFETY DATA SHEET

ACCORDING TO REGULATION (EC) 1907/2006

Product name: Manzanate

Creation date: 04.03.2026, Revision: 04.03.2026, Version: 1.0

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product name

Manzanate

Product code

[AC00038]

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

Relevant identified uses

Fragrances / Cosmetic / Flavours

Uses advised against

No information.

1.3 Details of the supplier of the safety data sheet

Supplier/Distributor

Farmadria DOO
Heroja Pinkija 44
26300 Vršac, Serbia
+381695565029
info@avenalab.com

1.4 Emergency Telephone Number

Emergency

112

Supplier/Distributor

+381695565029

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Flam. Liq. 3; H226 Flammable liquid and vapour.



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2.2 Label elements

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



Signal word: **WARNING**

Hazard statements:

H226 Flammable liquid and vapour.

Supplemental hazard information (EU):

Not applicable.

Precautionary statements:

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P240 Ground and bond container and receiving equipment.

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

P370 + P378 In case of fire: Use... to extinguish.

P403 + P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with national regulation.

2.3 Other hazards

PBT/vPvB

No information.

Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

Additional information

No information.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

For mixtures see 3.2.

3.2 Mixtures



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Name	CAS EC Index REACH	%	Classification according to Regulation (EC) No 1272/2008 (CLP)	Specific Concentration Limits	Notes for substances
Ethyl 2- methylpentano ate	39255-32-8 254-384-1 - 01- 2119969448- 19	> 50 %	Flam. Liq. 3; H226	/	/

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General notes

Never give anything by mouth to an unconscious person. Place patient in recovery position and ensure airway patency. When in doubt or if feeling unwell seek medical assistance. Show the safety data sheet and label to the physician.

Following inhalation

Remove patient to fresh air - move out of dangerous area. Obtain professional medical help!

Following skin contact

Take off all contaminated clothing. Areas of the body that have come into contact with the product must be rinsed with water. If symptoms develop and persist, seek medical attention.

Following eye contact

Immediately flush eyes with running water, keeping eyelids apart. If irritation persists, seek professional medical attention.

Following ingestion

Do not induce vomiting! Rinse mouth thoroughly with water. Never give anything by mouth to an unconscious person. Consult a physician! Show the physician the safety data sheet or label.

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation

Excessive exposure to spray mist, fog, or vapours may cause respiratory irritation.

Following skin contact

Contact with skin may cause irritation (redness, itching).



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Following eye contact

Contact with eyes can cause irritation (redness, tearing, pain).

Following ingestion

May cause nausea/vomiting and diarrhea. May cause abdominal discomfort.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Carbon dioxide. Dry chemical powder. Water spray. Alcohol resistant foam.

Unsuitable extinguishing media

Full water jet.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of a fire toxic gases can be generated; do not inhale gases/smoke.

5.3 Advice for firefighters

Protective actions

In case of fire or heating do not breathe fumes/vapours. No action shall be taken involving any personal risk or without suitable training. Prolonged heating can cause an explosion. Vapours can form explosive mixtures with air. Cool containers at risk with water spray. If possible remove containers from endangered area.

Special protective equipment for fire-fighters

Firefighters should wear appropriate protective clothing for firefighters (including helmets, protective boots and gloves) (BS EN 469) and self-contained breathing apparatus (SCBA) with a full face-piece (BS EN 137).

Additional information

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment

No information.

Precautionary measures

Ensure adequate ventilation. Keep away from sources of ignition and/or heat; No smoking!

Emergency procedures

No action shall be taken involving any personal risk or without suitable training. Prevent access to unprotected personnel. Evacuate the danger zone. Do not breathe vapour or mist. Avoid contact with skin, eyes and clothing.

For emergency responders

Use personal protective equipment.

6.2 Environmental precautions

Do not allow product to reach water/drains/sewage systems or permeable soil. In case of release into the environment, inform the relevant authorities.

6.3 Methods and material for containment and cleaning up

For containment

Stem the spill if this does not pose risks.

For cleaning up

Absorb product (with inert material), collect it in special container and dispose it to a licensed hazardous-waste disposal contractor. Use only explosion-proof instruments and equipment. Use spark-proof tools. Prevent release into the sewer, water, basements or confined areas. Ventilate the premises. Clean contaminated area with plenty of water.

Other information

No information.

6.4 Reference to other sections

See also sections 8 and 13.

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SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Protective measures

Measures to prevent fire

Ensure adequate ventilation. Keep away from sources of ignition - no smoking. Use spark-proof tools. Take precautionary measures against static discharges. Vapours are heavier than air and spread along the floor. They form explosive mixtures with air.

Measures to prevent aerosol and dust generation

Use general or local exhaust ventilation to prevent inhaling vapours and aerosols.

Measures to protect the environment

Do not discharge into drains, surface water and soil. After use immediately close container tightly.

Other measures

No information.

Advice on general occupational hygiene

Use good personal hygiene practices – wash hands at breaks and when done working with material. Do not eat, drink or smoke while working. Do not breathe vapours/mist. Avoid contact with skin, eyes and clothes. Remove contaminated clothes and wash them before reuse. Wear suitable protective equipment; see Section 8.

7.2 Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions

Keep in a cool, dry and well ventilated place. Protect from open fire, heat and direct sunlight. Keep away from food, drink and animal feeding stuffs. Keep away from oxidising substances. Keep away from sources of ignition - no smoking.

Packaging materials

Store only in original container.

Requirements for storage rooms and vessels

Close opened containers after use. Put the containers upright to prevent from leaking. Do not store in unlabelled containers.

Storage temperature

No information.

Storage class

No information.

Further information on storage conditions



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No information.

7.3 Specific end use(s)

Recommendations

No information.

Industrial sector specific solutions

No information.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure limit values

No information.

Information on monitoring procedures

BS EN 14042:2003 Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents. BS EN 689:2018 Workplace exposure. Measurement of exposure by inhalation to chemical agents. Strategy for testing compliance with occupational exposure limit values. BS EN 482:2021 Workplace exposure. Procedures for the determination of the concentration of chemical agents. Basic performance requirements.

DNEL/DMEL values

For product

No information.

For components

No information.

PNEC values

For product

No information.

For components

No information.

8.2 Exposure controls

Appropriate engineering control

Substance/mixture related measures to prevent exposure during identified uses

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Use good personal hygiene practices – wash hands at breaks and when done working with material. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothes. Do not eat, drink or smoke while working. Do not breathe vapours/aerosols.

Structural measures to prevent exposure

No information.

Organisational measures to prevent exposure

Remove all contaminated clothes immediately and wash them before reuse.

Technical measures to prevent exposure

Provide good ventilation and local exhaust in areas with increased concentration. Keep away from food, drink and animal feeding stuffs.

Personal protective equipment

Eye and face protection

Safety glasses with side protection (BS EN ISO 16321-1:2022/A1:2025).

Hand protection

Protective gloves (EN ISO 374). Observe the manufacturer's instructions regarding the use, storage, maintenance and replacement of gloves. In case of damage or at the first signs of wear and tear, change the gloves immediately. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. The penetration time is determined by the protective glove manufacturer and must be observed.

Appropriate materials

No information.

Skin protection

Protective antistatic clothing EN 1149 (1:2006, 2:1998 and 3:2004, 5:2008), protective antistatic shoes (EN 20345:2022). At high risk of skin exposure chemical suits (BS EN 13034:2005+A1:2009) and boots may be required (BS EN ISO 20345:2022+A1:2024).

Respiratory protection

In case of insufficient ventilation wear suitable respiratory protection. Wear suitable protective breathing mask (BS EN 136) with filter A2-P2 (BS EN 14387).

Thermal hazards

No information.

Environmental exposure controls

Substance/mixture related measures to prevent exposure

No information.

Instruction measures to prevent exposure

No information.

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Organisational measures to prevent exposure

No information.

Technical measures to prevent exposure

Do not allow product to reach drains, sewage systems or ground water.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Important health, safety and environmental information

Physical state	liquid
Shape	No information.
Colour	colorless to pale yellow colorless to pale yellow
Odour	Fruity, green, melon, waxy
Odour threshold	No information.
Melting/freezing point or softening point	No information.
Boiling point or initial boiling point and boiling range	152 °C
Flammability	No information.
Lower and upper explosion limit	No information.
Flash point	39 °C (close cup)
Auto-ignition temperature	No information.
Decomposition temperature	No information.
pH	No information.
Viscosity	No information.
Solubility (Water)	insoluble



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Solubility (Organic solvent)	soluble
Partition coefficient n-octanol/water (log value)	2.09
Vapour pressure	(est)
Relative density	0.861 at 25 °C
Relative vapour/gas density	No information.
Particle characteristics	No information.

9.2 Other information

Information with regard to physical hazard classes

No information.

Other safety characteristics

No information.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Avoid powerful oxidising agents

10.2 Chemical stability

No information.

10.3 Possibility of hazardous reactions

No information.

10.4 Conditions to avoid

Avoid any potential source of heat.



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10.5 Incompatible materials

Strong oxidizing agents, strong alkali and strong acids

10.6 Hazardous decomposition products

Thermal decomposition / conditions to be avoided: Avoid contact with any flame or spark, flame, Overheat. Avoid Direct rays of the sun. No decomposition if used according to specifications. Dangerous decomposition products: No dangerous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION

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

(a) Acute toxicity

No information.

Additional information

The product is not classified as acutely toxic.

(b) Skin corrosion/irritation

No information.

Additional information

The product is not classified as irritating to skin.

(c) Serious eye damage/irritation

No information.

(d) Respiratory or skin sensitisation

No information.

Additional information

The product is not classified as sensitising.

(e) (Germ cell) mutagenicity

No information.

(f) Carcinogenicity

No information.



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(g) Reproductive toxicity

No information.

Summary of evaluation of the CMR properties

The product is not classified as carcinogenic, mutagenic or toxic for reproduction.

(h) STOT-single exposure

No information.

Additional information

STOT SE (single exposure): Not classified.

(i) STOT-repeated exposure

No information.

Additional information

STOT RE (repeated exposure): Not classified.

(j) Aspiration hazard

No information.

Additional information

Aspiration hazard: Not classified.

Symptoms related to the physical, chemical and toxicological characteristics

No information.

Interactive effects

No information.

11.2 Information on other hazards

Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

Other information

No information.



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12.1 Toxicity

Acute (short-term) toxicity

No information.

Chronic (long-term) toxicity

No information.

12.2 Persistence and degradability

Abiotic degradation, physical- and photo-chemical elimination

No information.

Biodegradation

No information.

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log value)

For product

Value	Temperature °C	pH	Concentration	Method
2.09	/	/	/	/

Bioconcentration factor (BCF)

No information.

12.4 Mobility in soil

Known or predicted distribution to environmental compartments

No information.

Surface tension

No information.

Adsorption/Desorption

No information.



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12.5 Results of PBT and vPvB assessment

No evaluation.

12.6 Endocrine disrupting properties

The product does not contain substances with the potential for endocrine disorders.

12.7 Other adverse effects

No information.

12.8 Additional information

For product

Product is not classified as hazardous for environment. Do not allow to reach ground water, water courses or sewage system.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product / Packaging disposal

Waste chemical

Do not allow product to reach drains/sewage systems. Disposal must be made according to official regulations: deliver it to authorised collector/remover/transformer of hazardous waste.

Waste codes / waste designations according to LoW

No information.

Packaging

Deliver completely emptied containers to approved waste disposal authorities. Uncleaned containers are classified as hazardous waste - they should be handled in the same manner as the contents. Uncleaned containers should not be perforated, cut or welded. Empty containers represent a fire hazard as they may contain flammable product residues and vapours.

Waste codes / waste designations according to LoW

No information.

Waste treatment-relevant information

No information.

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No information.

Other disposal recommendations

No information.

SECTION 14: TRANSPORT INFORMATION

14.1 UN number or ID number

ADR/RID	IMDG	IATA	ADN
UN 3272	UN 3272	UN 3272	UN 3272

14.2 UN proper shipping name

ADR/RID	IMDG	IATA	ADN
ESTERS, N.O.S.	ESTERS, N.O.S.	ESTERS, N.O.S.	ESTERS, N.O.S.

14.3 Transport hazard class(es)

ADR/RID	IMDG	IATA	ADN
3	3	3	3
			

14.4 Packing group

ADR/RID	IMDG	IATA	ADN
III	III	III	III

14.5 Environmental hazards



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ADR/RID	IMDG	IATA	ADN
NO	NO	NO	NO

14.6 Special precautions for user

ADR/RID	IMDG	IATA	ADN
Limited quantities: 5 L Special provisions: 274, 601 Packing Instructions: P001, IBC03, LP01, R001 Transport category: 3 Tunnel restriction code: (D/E) Classification code: F1	Limited quantities: 5 L EmS: F-E, S-D Flash point: 39 °C	Limited Quantity, Packing Instructions (Ltd Qty, Pkg Inst): Y344 Limited Quantity, Maximum Net Quantity/Package (Ltd Qty, Max Net Qty/Pkg): 10 L Packing Instructions (Pkg Inst): 355 Maximum Net Quantity/Package (Max Net Qty/Pkg): 25 L Special provisions: A3	Limited quantities: 5 L

14.7 Maritime transport in bulk according to IMO instruments

ADR/RID	IMDG	IATA	ADN
/	Goods may not be carried in bulk in bulk containers, containers or vehicles.	/	/

SECTION 15: REGULATORY INFORMATION

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



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- Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (including last amendment Commission Regulation (EU) 2020/878)
- Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
- EH40/2005 Workplace exposure limits (Fourth Edition 2020)

Information according 2004/42/EC about limitation of emissions of volatile organic compounds (VOC-guideline)

not applicable

Ingredients according to Regulation (EC) No 648/2004 on detergents

No information.

Special instructions

Observe the regulations on employment and protection against dangerous substances for young people, pregnant women and nursing mothers.

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION

Indication of changes

No information.

Key literature references and sources for data

No information.

Abbreviations and acronyms

ATE - Acute Toxicity Estimate
ADR - Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CEN - European Committee for Standardisation
C&L - Classification and Labelling
CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
CAS# - Chemical Abstracts Service number
CMR - Carcinogen, Mutagen, or Reproductive Toxicant
CSA - Chemical Safety Assessment
CSR - Chemical Safety Report
DMEL - Derived Minimal Effect Level
DNEL - Derived No Effect Level



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DSD - Dangerous Substances Directive 67/548/EEC

DU - Downstream User

EC - European Community

ECHA - European Chemicals Agency

EC-Number - EINECS and ELINCS Number (see also EINECS and ELINCS)

EEA - European Economic Area (EU + Iceland, Liechtenstein and Norway)

EEC - European Economic Community

EINECS - European Inventory of Existing Commercial Substances

ELINCS - European List of notified Chemical Substances

EN - European Standard

EQS - Environmental Quality Standard

EU - European Union

Euphrac - European Phrase Catalogue

EWG - European Waste Catalogue (replaced by LoW – see below)

GES - Generic Exposure Scenario

GHS - Globally Harmonized System

IATA - International Air Transport Association

ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air

IMDG - International Maritime Dangerous Goods

IMSBC - International Maritime Solid Bulk Cargoes

IT - Information Technology

IUCLID - International Uniform Chemical Information Database

IUPAC - International Union for Pure Applied Chemistry

JRC - Joint Research Centre

Kow - octanol-water partition coefficient

LC50 - Lethal Concentration to 50 % of a test population

LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)

LE - Legal Entity

LoW - List of Wastes (see <http://ec.europa.eu/environment/waste/framework/list.htm>)

LR - Lead Registrant

M/I - Manufacturer / Importer

MS - Member States

MSDS - Material Safety Data Sheet

OC - Operational Conditions

OECD - Organization for Economic Co-operation and Development

OEL - Occupational Exposure Limit

OJ - Official Journal

OR - Only Representative

OSHA - European Agency for Safety and Health at work

PBT - Persistent, Bioaccumulative and Toxic substance

PEC - Predicted Effect Concentration

PNEC(s) - Predicted No Effect Concentration(s)

PPE - Personal Protection Equipment

(Q)SAR - Qualitative Structure Activity Relationship

REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals (Regulation (EC) No 1907/2006)

RID - Regulations concerning the International Carriage of Dangerous Goods by Rail

RIP - REACH Implementation Project

RMM - Risk Management Measure

SCBA - Self-Contained Breathing Apparatus



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SDS - Safety data sheet

SIEF - Substance Information Exchange Forum

SME - Small and Medium sized Enterprises

STOT - Specific Target Organ Toxicity

(STOT) RE - Repeated Exposure

(STOT) SE - Single Exposure

SVHC - Substances of Very High Concern

UN - United Nations

vPvB - Very Persistent and Very Bioaccumulative

List of relevant H phrases

H226 Flammable liquid and vapour.

