

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

1.1. Product identifier

Product name : FERMOTAN Thermo
Product code: refer to sales department

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

Tannins
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

AEB SpA - Via Vittorio Arici 104 S.Polo - 25134 Brescia (BS) Italy
Tel. +39.030.2307.1 Fax +39.030.2307281
E-mail: info@aeb-group.com - Internet: www.aeb-group.com
E-mail tecnico competente/technical dept.: sds@aeb-group.com

AEB USA
111 N Cluff Avenue
Lodi CA 95240 (USA)
Tel: +1 2096258139 Fax: +1 2092248953
Email: info@aebusa.com - Internet: www.aeb-group.com

AEB AFRICA (PTY) LTD
18 Track Crescent, Cor. Station Road
Montague Gardens 7441
Cape Town (South Africa)
Tel.: +27 215512700 - Fax: +27 (0) 215511919
Email: info@aeb.co.za - Internet: www.aeb-group.com

AEB OCEANIA PTY LTD
178A Wakaden Street
Griffith NSW 2680
T: 1300 704 971
Email: aeboceania@aeb-group.com - Internet: www.aeb-group.com

Produced by
AEB SpA
Via Vittorio Arici 104 S. Polo
25134 Brescia

1.4. Emergency telephone number

AEB SpA
Centralino/Switchboard: +39.030.2307.1 - (h 8.30-12.00 13.30-18.00 GMT +1; Lingua/Language: Italiano, English)

AEB USA

Switchboard: +1 2096258139 (GMT -8; Language: English)

AEB AFRICA (PTY) LTD
Switchboard: +27 215512700 (GMT +1; Language: English, Afrikaans)

AEB OCEANIA PTY LTD
Switchboard: +61 1300 704 971 (GMT +9; Language: English)

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

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

Pictograms:
None

Hazard Class and Category Code(s):
Aquatic Chronic 3

Hazard statement Code(s):
H412 - Harmful to aquatic life with long lasting effects.

The product is dangerous to the environment as it is harmful to aquatic life with long lasting effects

2.2. Label elements

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

Pictogram, Signal Word Code(s):
None

Hazard statement Code(s):
H412 - Harmful to aquatic life with long lasting effects.

Supplemental Hazard statement Code(s):
not applicable

Precautionary statements:
Prevention
P273 - Avoid release to the environment.
Disposal
P501 - Dispose of contents/container to local/regional/national/international regulations

Contains:
Ingredients: mix of ellagic, gall and proanthocyanidinic tannins.
Food use, oenological use. Not intended for the final consumer. In accordance with current regulations on the specific matter. Only for industrial use.

2.3. Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 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 |
|-------------------|---------------------|---|-------|------------|-----------|-------|
| GRAPE SEED TANNIN | >= 5 < 10% | Aquatic Chronic 2, H411 Acute toxicity M-factor = 1 Chronic toxicity M-factor = 1 | | 85594-37-2 | 287-896-9 | |

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):

Wash thoroughly with soap and running water.

Direct contact with eyes (of the pure product):

Wash immediately and thoroughly with running water for at least 10 minutes.

Ingestion:

Not dangerous. In case of malaise consult a doctor.

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

In contact with skin may cause irritation.

Contact with eyes may cause irritation, including redness and tearing.

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

No data available.

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

Inform the competent 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:

Recover the product for reuse, if possible, or for elimination.

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

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

No data available.

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
Not needed for normal use, unless otherwise provided by the employer and / or by assessments of environmental hygiene investigations
- (b) Skin protection
 - (i) Hand protection
Not needed for normal use, unless otherwise provided by the employer and / or by assessments of environmental hygiene investigations
 - (ii) Other
Wear normal work clothing.
- (c) Respiratory protection
Not needed for normal use, unless otherwise provided by the employer and / or by assessments of environmental hygiene investigations
- (d) Thermal hazards
No hazard to report

Environmental exposure controls:
Use according to good working practices and avoid to disperse the product into the environment.

SECTION 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

| Physical and chemical properties | Value | Determination method |
|--|---|----------------------|
| Physical state | Powder mixed with granules | |
| Colour | Brown - beige | |
| Odour | not determined as deemed not relevant to the characterization of the product | |
| Odour threshold | not determined as deemed not relevant to the characterization of the product | |
| Melting point/freezing point | not determined as deemed not relevant to the characterization of the product | |
| Boiling point or initial boiling point and boiling range | not determined as deemed not relevant to the characterization of the product | |
| Flammability | not determined as deemed not relevant to the characterization of the product | |
| Lower and upper explosion limit | not determined as deemed not relevant to the characterization of the product | |
| Flash point | not determined as deemed not relevant to the characterization of the product | ASTM D92 |
| Auto-ignition temperature | not determined as deemed not relevant to the characterization of the product | |
| Decomposition temperature | not determined as deemed not relevant to the characterization of the product | |
| pH | 4,5 ± 0,5 (20°C; Sol. 5%) | |
| Kinematic viscosity | not determined as deemed not relevant to the characterization of the product | |
| Solubility | in water | |
| Water solubility | miscible in all proportions | |
| Partition coefficient n-octanol/water (log value) | not determined as deemed not relevant to the characterization of the product | |
| Vapour pressure | not determined as deemed not relevant to the characterization of the product | |
| Density and/or relative density | 0,50 ± 0,05 (20°C) | |
| Relative vapour density | not determined as deemed not relevant to the characterization of the product | |
| Particle characteristics | not determined as considered not relevant for the characterization of the product | |

9.2. Other information

9.2.1 Information with regard to physical hazard classes

No data available.

9.2.2 Other safety characteristics

No data available.

SECTION 10. Stability and reactivity

10.1. Reactivity

=====
Related to contained substances:
GRAPE SEED TANNIN:
Stable under normal conditions

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

Avoid exposure to heat source

10.5. Incompatible materials

Iron, heavy metal salts, alkaloids, gelatin albumins, starches, oxidizing materials, lime water.

10.6. Hazardous decomposition products

Combustion conditions you have smoke emission acres and irritating, with the possibility of development of toxic gas.

SECTION 11. Toxicological information

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

- (a) acute toxicity: GRAPE SEED TANNIN: Ingestion - LD50 rat (mg / kg / 24h bw):> 5000
Skin contact - LC50 rat / rabbit (mg / kg / 24h bw): not available
Inhalation - LD50 rat (mg / l / 4h): not available
(b) skin corrosion/irritation: GRAPE SEED TANNIN: Non-corrosive
GRAPE SEED TANNIN: Non-irritating
(c) serious eye damage/irritation: GRAPE SEED TANNIN: Non-corrosive
GRAPE SEED TANNIN: Non-irritating
(d) respiratory or skin sensitisation: GRAPE SEED TANNIN: Non-sensitizing
(e) germ cell mutagenicity: GRAPE SEED TANNIN: Non-mutagenic
(f) carcinogenicity: GRAPE SEED TANNIN: Non-carcinogenic
(g) reproductive toxicity: GRAPE SEED TANNIN: Non-toxic for reproduction
(h) specific target organ toxicity (STOT) single exposure: GRAPE SEED TANNIN: Non-toxic
(i) specific target organ toxicity (STOT) repeated exposure GRAPE SEED TANNIN: Non-toxic
(j) aspiration hazard: GRAPE SEED TANNIN: Not dangerous in case of aspiration

11.2. Information on other hazards

No data available.

SECTION 12. Ecological information

12.1. Toxicity

=====
Related to contained substances:
GRAPE SEED TANNIN:
Acute toxicity - fish LC50 (mg / l / 96h): 1.2
Acute toxicity - crustaceans EC50 (mg / l / 48h): 73.32
Acute toxicity algae ErC50 (mg / l / 72-96h): not available
Chronic toxicity - fish NOEC (mg / l): not available
Chronic toxicity - crustaceans NOEC (mg / l): not available
Chronic toxicity algae NOEC (mg / l): not available
C(E)L50 (mg/l) = 1,2

The product is dangerous for the environment as it is toxic for aquatic organisms following acute exposure.

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

12.2. Persistence and degradability

=====
Related to contained substances:
GRAPE SEED TANNIN:
Not rapidly biodegradable

12.3. Bioaccumulative potential

=====
Related to contained substances:
GRAPE SEED TANNIN:
Not applicable

12.4. Mobility in soil

=====
Related to contained substances:
GRAPE SEED TANNIN:
Not applicable

12.5. Results of PBT and vPvB assessment

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

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. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

SECTION 14. Transport information

14.1. UN number or ID number

Not included in the field of application of regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

14.2. UN proper shipping name

None

14.3. Transport hazard class(es)

None

14.4. Packing group

None

14.5. Environmental hazards

None

14.6. Special precautions for user

No data available.

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 in a proportion $\geq 0.1\%$.
Substances subject to authorisation (Ann. XIV Reg. CEC 1907/2006): the product does not contain SVHC in a proportion $\geq 0.1\%$.
Reg. (EU) n. 1169/2011: see 2.2

15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

SECTION 16. Other information

16.1. Other information

Points modified compared to previous release: 1.2. Relevant identified uses of the substance or mixture and uses advised against, 2.1. Classification of the substance or mixture, 2.2. Label elements, 8.2. Exposure controls
Description of hazard statements set out in paragraph 3

H411 = Toxic to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008

H412 - Harmful to aquatic life with long lasting effects. Classification procedure: Calculation method

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 (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.

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 Oxygen 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>

This msds was made in good faith by technical Office on the basis of the information available at the date of the last revision. The person in charge must regularly inform the employees about the specific risks they encounter when using this substance/product. The information contained here relate only to the substance/the preparation indicated and may not apply if the product is used improperly or in combination with others. Nothing contained herein shall be construed as a guarantee, either express or implied. It is the responsibility of the user to ensure the opportunities and completeness of the information contained herein for their own particular use.

*** this tab annuls and replaces any previous edition. (IIXX)

Changes to the previous edition: labeling variation.
