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

1.1. Product identifier

Product name : VE-GEL Liquid
Product code: refer to sales department

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

Clarifying Agents
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
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Produced by
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1.4. Emergency telephone number

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AEB USA
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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):
Non hazardous

Hazard statement Code(s):
Non hazardous

2.2. Label elements

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

Pictogram, Signal Word Code(s):
None

Hazard statement Code(s):
Non hazardous

Supplemental Hazard statement Code(s):
EUH210 - Safety data sheet available on request.

Precautionary statements:
None in particular.

Ingredients: vegetable proteins (pea proteins) and activated bentonite, in a solution stabilized with citric acid and potassium bisulfite(a) (10 g/hL bring about 0,35 mg/L SO2).
Food use. Also for oenological use. Not intended for the final consumer. In accordance with current regulations on the specific matter.

(a)=sulfites

(<Sulphur dioxide and sulphites at concentrations of more than 10 mg/kg or 10 mg/litre expressed as SO2>in compliance with Regulation (EU) No 1169/2011 - Annex II and subsequent additions and modifications)

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

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

SECTION 3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
Citric acid	>= 3 < 5%	Eye Irrit. 2, H319		5949-29-1	201-069-1	01-2119457026-42-XXXX
ACTIVED BENTONITE substance for which there are Community workplace exposure limits	>= 1 < 2,5%			1302-78-9	215-108-5	

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 thorougly 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

No data available.

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 gloves and protective clothing

6.1.2 For emergency responders:
Eliminate all unguarded flames and possible sources of ignition. No smoking.
Privide 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:
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert materia or sucked 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
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

==========
Related to contained substances:
Citric acid:
TLV - TWA (Threshold Limit Value - Time Weighted Average) - Eight hours (ppm)/(mg/m³)
Germany (AGS): x/2(1) Remarks: (1) Inhalable fraction
Germany (DFG); x/2(1) Remarks: (1) Inhalable fraction and vapour
Switzerland: x/2(1) Remarks:(1) Inhalable fraction

TLV-STEL Threshold limit value − short-term exposure limit (ppm)/(mg/m³)
Germany (AGS): x/4(1)(2) Remarks: (1) Inhalable fraction (2) 15 minutes average value
Germany (DFG): x/4(1)(2) Remarks: (1) Inhalable fraction and vapour (2) 15 minutes average value
Switzerland: x/4(1)(2) Remarks: (1) Inhalable fraction(2) 15 minutes average value

ACTIVED BENTONITE:
INHALABLE, DUST

TLV - TWA (Threshold Limit Value - Time Weighted Average) - Eight hours (ppm)/(mg/m³)
Austria: x/10
Belgium: x/10
Denmark: x/10
France: x/4 (1) General remarks: Bold type: Restrictive statutory limit values - Remarks: (1) Inhalable fraction

Germany (AGS): x/10(1)(2)(3) Remarks: (1) Insoluble particulates (2) not applicable for ultra-fine dusts and dusts with specific toxicity (3) the limit value is a general upper limit for technical measures, as long as no specific regulations for toxic or carcinogenic substances are available
Germany (DFG): x/4
Hungary: x/10
Ireland: x/10
Poland: x/10
Singapore: x/10
Spain: x/10
Sweden: x/10
Switzerland: x/10

TLV-STEL Threshold limit value − short-term exposure limit (ppm)/(mg/m³)
Austria: x/20
Denmark: x/20
Germany (AGS): x/20(1)(2)(3) Remarks: (1) Insoluble particulates (2) not applicable for ultra-fine dusts and dusts with specific toxicity (3) the limit value is a general upper limit for technical measures, as long as no specific regulations for toxic or carcinogenic substances are available

RESPIRABLE DUST

TLV - TWA (Threshold Limit Value - Time Weighted Average) - Eight hours (ppm)/(mg/m³)
Austria: x/5
Belgium: x/3
France: x/0,9 Remarks: (1) type: Restrictive statutory limit values
Germany (AGS): x/1,25 (1)(2)(3)(4)(5) Remarks: (1) Insoluble particulates (2) not applicable for ultra-fine dusts and dusts with specific toxicity (3) the limit value is a general upper limit for technical measures, as long as no specific regulations for toxic or carcinogenic substances are available (4) the limit value was derived for dusts with an average density of 2.5 mg/m³ (5) at work areas where all technical and further measures are state of the art but the LV is still not adhered, the old LV can be applied for a transitional period until 31st December 2018 (8 h-LV: 3.0 mg/m³, 15 minutes average value: 6.0 mg/m³)
Germany (DFG): x/0,3 (1) Remarks: (1) For granular, bio-resistant dusts, except ultra-fine particles (2) 15 minutes average value
Hungary: x/6
Ireland: x/4
Spain: x/3
Switzerland: x/3
USA – OSHA: x/5

TLV-STEL Threshold limit value − short-term exposure limit (ppm)/(mg/m³)
Austria: x/10
Germany (DFG): x/2,4 (1)(2) Remarks: (1) For granular, bio-resistant dusts, except ultra-fine particles (2) 15 minutes average value

- Substance: Citric acid
PNEC
Sweet water = 0,44 (mg/l)
sediment Sweet water = 34,6 (mg/kg/sediment)
Sea water = 0,044 (mg/l)
sediment Sea water = 3,46 (mg/kg/sediment)
STP = 1000 (mg/l)
ground = 33,1 (mg/kg ground)

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	Cloudy liquid	
Colour	Beige	
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	
Melting point/freezing point	not determined as it is considered not relevant for the characterization of the product	
Boiling point or initial boiling point and boiling range	not determined as it is considered not relevant for the characterization of the product	
Flammability	not determined as it is considered not relevant for the characterization of the product	
Lower and upper explosion limit	not determined as it is considered not relevant for the characterization of the product	

Physical and chemical properties	Value	Determination method
Flash point	not determined as it is considered not relevant for the characterization of the product	ASTM D92
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	
pH	3,5 ± 0,5 (20°C)	
Kinematic viscosity	not determined as it is considered not relevant for the characterization of the product	
Solubility	not determined as it is considered not relevant for the characterization of the product	
Water solubility	not determined as it is considered not relevant for the characterization of the product	
Partition coefficient n-octanol/water (log value)	not determined as it is considered not relevant for the characterization of the product	
Vapour pressure	not determined as considered not relevant for the characterization of the product	
Density and/or relative density	1,05 ± 0,05 (20°C)	
Relative vapour density	not determined as it is considered not relevant for 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

Irrilevant

9.2.2 Other safety characteristics

Irrilevant

SECTION 10. Stability and reactivity

10.1. Reactivity

==========
Related to contained substances:
Citric acid:
It is not pyrophoric

ACTIVED BENTONITE:
Inert - Non-reactive

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

==========
Related to contained substances:
Citric acid:
Keep away from direct sunlight and heat. Avoid extreme humidity conditions.

ACTIVED BENTONITE:
Minimize dust formation in inadequately ventilated indoor areas. Slippery if wet

10.5. Incompatible materials

Nne in particular

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

(a) acute toxicity: Citric acid: Ingestion - LD50 rat (mg/kg/24h bw): nd
Contact with skin - LD50 rabbit (mg/kg/24h bw): nd
Inhalation - LD50 rat (mg/l/4h): nd
ACTIVED BENTONITE: Ingestion-rat LD50 (mg/kg/bw 24h): > 2000

Skin contact-LC50 rat/coniglio (mg/kg/bw 24h): n.a.

Inhalation-rat LD50 (mg/l/4h): > 5.27
(b) skincorrosion/irritation: Citric acid: Not corrosive
ACTIVED BENTONITE: Non-corrosive
Citric acid: Not irritating
ACTIVED BENTONITE: Non-irritating
(c) serious eye damage/irritation: Citric acid: Not corrosive
ACTIVED BENTONITE: Non-corrosive
Citric acid: Irritating
ACTIVED BENTONITE: Slightly irritating
(d) respiratoryorskinsensitisation: Citric acid: Not available

ACTIVED BENTONITE: Non-sensitizing
(e) germ cell mutagenicity: Citric acid: Not mutagenic
ACTIVED BENTONITE: Non-mutagenic
(f) carcinogenicity: Citric acid: Not carcinogenic
ACTIVED BENTONITE: Non-carcinogenic
(g) eproductivetoxicity: Citric acid: Non-toxic for reproduction
ACTIVED BENTONITE: Non-toxic for reproduction
(h) specific target organ toxicity (STOT) single exposure: Citric acid: Not available
ACTIVED BENTONITE: Non-toxic
(i) specific target organ toxicity (STOT) repeated exposureCitric acid: Rat: NOAEL: 4,000 mg / kg
LOAEL: 8,000 mg / kg
Application method: Oral
Exposure time: 10 d
Doses: 2, 4, 8, 16 g / kg bw / day
ACTIVED BENTONITE: Non-toxic
(j) aspiration hazard: Citric acid: Unavailable
ACTIVED BENTONITE: There are no dangers for aspiration

11.2. Information on other hazards

No data available.

11.2.1. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

SECTION 12. Ecological information

12.1. Toxicity

==========
Related to contained substances:
Citric acid:
Acute toxicity - fish LC50 (mg / l / 96h): 440
Acute toxicity - crustaceans EC50 (mg / l / 48h): 1535
Acute toxicity algae ErC50 (mg / l / 72-96h): 425
C(E)L50 (mg/l) = 1535 Acute toxicity M-factor = 1
Chronic toxicity M-factor = 1

ACTIVED BENTONITE:
Acute toxicity - fish LC50 (mg / l / 96h): 16000
Acute toxicity - crustaceans EC50 (mg / l / 48h): nd
Acute algae toxicity ErC50 (mg / l / 72-96h):> 100

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

12.2. Persistence and degradability

==========
Related to contained substances:
Citric acid:
Easily biodegradable

ACTIVED BENTONITE:
Not persistent

12.3. Bioaccumulative potential

==========
Related to contained substances:
Citric acid:
Not bioaccumulative

ACTIVED BENTONITE:
Not bioaccumulative

12.4. Mobility in soil

==========
Related to contained substances:
Citric acid:
Unavailable

ACTIVED BENTONITE:
Not available

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

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

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

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 the substances contained (Annex XVII EC Reg. 1907/2006): not applicable
Substances in Candidate list (art. 59 EC Reg. 1907/2006): the product does not contain SVHC in percentage = a 0.1 %.

Regulation (EU) 1169/2011: see point 2.2
Regulation (EU) 1308/2013; see point 2.2
Regulation (EC) 1333/2008; see point 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: 9. Physical and chemical properties.
Description of hazard statements set out in paragraph 3
H319 = Causes serious eye irritation.

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

No hazard to report. 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.
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 europèen relative au transport International des merchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE: Acute Toxicity Estimat
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 concernent le transport International ferroviaire des merchandises 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 raw material supplier

- GESTIS International Limit Value: http://limitvalue.ifa.dguv.de

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*** this tab annuls and replaces any previous edition.

Changes to the previous edition: general update.