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Product Name: **VEG A**

## **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

### **1.1 Product identifier**

*Trade name:*

VEG A

*Identification of the mixture:*

Mineral salts solution containing:

Calcium nitrate (CAS 10124-37-5 / EC 233-332-1)

Ammonium nitrate (CAS 6484-52-2 / EC 229-347-8)

Potassium nitrate (CAS 7757-79-1 / EC 231-818-8)

Boric Acid (CAS 10043-35-3 / EC 233-139-2)

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

*Relevant identified uses:*

Adjuvant for plant growth

### **1.3 Details of the supplier of the safety data sheet**

*Supplier:*

AGRICO C. SRL

Via Roncobasso 9, 26100 Cremona (CR)

Tel +39 (0)372 37846 - Fax +39 (0)372 322229

E-mail address of competent person responsible for the SDS: [info@agricosrl.it](mailto:info@agricosrl.it)

### **1.4 Emergency telephone number**

Centro Antiveleni:

Milano - 0266101029 / Napoli - 0817472870 / Pavia - 038224444 / Bergamo - 800883300

Foggia - 800183459 / Firenze - 0557947819 / Roma - 063054343 - 0649978000 – 0668593726

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## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

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

Eye Dam. 1, H318 – Causes serious eye damage  
Oral Acute Tox. 4, H302 – Harmful if swallowed

*Additional information:*

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

### 2.2 Label elements

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

*Hazard pictograms*



*Signal word:*

**Danger**

*Hazard statements:*

H302 Harmful if swallowed

H318 Causes serious eye damage

*Precautionary statements:*

P264 Wash hands thoroughly after handling

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P270 Do not eat, drink or smoke when using this product

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

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes: Remove contact lenses if present and easy to do. Continue rinsing

*Supplemental Hazard information (EU):*

Not applicable

*Hazardous components for labeling:*

Calcium nitrate

### **2.3 Other hazards**

None

*PBT e vPvB evaluation results:*

PBT: No

vPvB: No

## **SECTION 3: Composition/information on ingredients**

### **3.1 Substances**

Not applicable

### **3.2 Mixtures**







*Substances which present a health or environmental hazard within the meaning of Regulation (EC) No 1272/2008:*

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Quantity	Name	Identifiers	Classification
≥ 30% - < 40%	Calcium nitrate	CAS: 10124-37-5 EC: 233-332-1 REACH No.: 01-2119495093-35-XXXX	 3.1/4/Oral Acute Tox. 4 H302  3.3/1 Eye Dam. 1 H318
≥ 1% - < 2.5%	Ammonium nitrate	CAS: 6484-52-2 EC: 229-347-8 REACH No.: 01-2119490981-27-XXXX	 2.14/3 Ox. Sol. 3 H272  3.3/2 Eye Irrit. 2 H319
≥ 0.5% - < 1%	Potassium nitrate	CAS: 7757-79-1 EC: 231-818-8	 2.14/2 Ox. Sol. 2 H272
≥ 0.1% - < 0.25%	Boric Acid	CAS: 10043-35-3 EC: 233-139-2 Index number: 005-007-00-2	 3.7/1B Repr. 1B H360FD

All the ingredients comply with regulation (EC) No 1907/2006 and are registered by producers/importers/only representative were applicable: registration numbers are available to Authorities within seven days from request. There can be other ingredients under EXEMPTIONS FROM THE OBLIGATION TO REGISTER IN ACCORDANCE WITH ARTICLE 2 or because produced/imported in quantities below than one ton per year

**SVHC substances:**

≥ 0.1% - < 0.25% Boric acid (Index number: 005-007-00-2, CAS: 10043-35-3, EC: 233-139-2)

**SECTION 4: First aid measures**
**4.1 Description of first aid measures**
**Skin contact:**

Remove contaminated clothing. Wash with water and eventually soap the contaminated zones, even if only suspected. IMMEDIATE MEDICAL ATTENTION IS REQUIRED. Completely wash the body (bath or shower). Remove contaminated clothing and dispose of them properly

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*Eye contact:*

Remove contact lenses, if present, and immediately rinse eyes while holding eyelids open for a sufficient period of time (at least 15 minutes) with lukewarm water. Help the victim with the rinsing process. Ophthalmic attention is required. Protect unharmed eye

*Ingestion:*

Do not drink and do not eat

*Inhalation:*

Remove person to fresh air and keep comfortable for breathing

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

None

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

Request medical attention in case of accident or discomfort. If possible show the Safety Data Sheet

*Symptomatic treatment and supportive therapy:* as eventually prescribed by medical care

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

*Suitable extinguishing media:*

Water, Carbon dioxide (CO<sub>2</sub>).

*Unsuitable extinguishing media:*

None

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## 5.2 Special hazards arising from the substance or mixture

During heating or in case of fire, poisonous gases may be produced. Do not inhale. Heavy smoke is produced with combustion

## 5.3 Advice for firefighters

Wear appropriate breathing apparatus. Collect the water/media used to extinguish the fire. Do not dispose of it in the sewage. Move away unharmed containers from the danger zone if safe

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

*For non-emergency personnel:*

Wear suitable protective equipment (including protection listed in Section 8 of the SDS) to prevent contamination of skin, eyes and clothing. Remove persons to safe areas

*For emergency responders:*

Wear suitable protective equipment (including protection listed in Section 8 of the SDS) to prevent contamination of skin, eyes and clothing. Remove persons to safe areas

### 6.2 Environmental precautions

Prevent spills and accidental releases to reach soil, ground water and drains. Collect contaminated flush water and dispose of it properly. Inform relevant Authorities in case of gas formation or release in soil, ground water or drains

### 6.3 Methods and material for containment and cleaning up

*Neutralization techniques:*

Wash with abundant water

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*Decontamination techniques:*

Wash with abundant water

*Adsorbent materials:*

Organic, sand

**6.4 Reference to other sections**

See also Sections 8 and 13

## **SECTION 7: Handling and storage**

### **7.1 Precautions for safe handling**

Avoid skin and eye contact. Avoid vapor and mist inhalation. Do not reuse empty containers before careful washing. Ensure recipient container is clean and/or does not contain incompatible substances/mixtures before transferring. Do not smoke, eat or drink during use. See also Section 8 for recommended protection.

*Advice on general occupational hygiene:*

Remove contaminated clothing and protective equipment before entering eating areas. Do not eat, drink or smoke in work areas.

### **7.2 Conditions for safe storage, including any incompatibilities**

*Incompatible substances or mixtures:*

None

*Ventilation requirement:*

Maintain a good ventilation in storage areas/rooms

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*Generic requirements:*

Keep away from foods and drinks

**7.3. Specific end use(s)**

*Specific end use(s):*

None

**SECTION 8: Exposure controls/personal protection**

**8.1 Control parameters (Italy)**

*Legislation framework:*

OEL EU

Directive (CE) 2017/2398; Directive (CE) 2017/164; Directive 2009/161/CE; Directive 2006/15/CE; Directive 2004/37/CE; Directive 2000/39/CE; Directive 91/322/CE

TLV-ACGIH

ACGIH 2017

Boric acid - CAS: 10043-35-3

- OEL Type: ACGIH - TWA(8h): 2 mg/m<sup>3</sup> - STEL: 6 mg/m<sup>3</sup> - Note: (I), A4 - URT irr

Occupational Exposure Limits DNEL

Calcium nitrate - CAS: 10124-37-5

Consumer: 10 mg/Kg bw/day - Exposure: Human Oral

- Frequency: Short term (acute)

Ammonium nitrate - CAS: 6484-52-2

Professional worker: 36 mg/m<sup>3</sup> - Consumer: 8.9 mg/m<sup>3</sup> - Exposure: Human Inhalation

- Frequency: Long term (chronic)

Professional Worker: 5.12 mg/kg - Consumer: 2.56 mg/kg

- Exposure: Human Skin - Frequency: Long term (chronic)

Consumer: 2.56 mg/kg - Exposure: Human Oral - Frequency: Long term (chronic)

Limit exposure levels PNEC

Calcium nitrate - CAS: 10124-37-5

Target: Microorganisms in sewage treatment - Value: 18 mg/l



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## 8.2 Exposure controls

*Appropriate engineering controls:* None

*Individual protection measures, such as personal protective equipment:*

Eye/Face protection: Use face shields, do not use contact lenses.

Skin protection: use total protection clothing in, i.e., PVC, cotton, rubber, viton

Hands protection: use total protection gloves in, i.e., PVC, neoprene, rubber

Respiratory protection: not required for normal use

Thermal hazards: none

*Environmental exposure controls:* None

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

PROPERTY	VALUE	METHOD	NOTES
Appearance	Liquid	-	-
Odour	Characteristic	-	-
Odour threshold	Not relevant	-	-
pH	5.7	-	-
Melting point/freezing point	Not relevant	-	-
Initial boiling point and boiling range	Not relevant	-	-
Flash point	Not relevant	-	-
Evaporation rate	Not relevant	-	-
Flammability (solid, gas)	Not relevant	-	-
Upper/lower flammability or explosive limits	Not relevant	-	-
Vapour pressure	Not relevant	-	-
Vapour density	Not relevant	-	-
Relative density	1.3	-	-

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Solubility in water	Not relevant	-	-
Solubility in pil	Not relevant	-	-
Partition coefficient: n-octanol/water	Not relevant	-	-
Auto-ignition temperature	Not relevant	-	-
Decomposition temperature	Not relevant	-	-
Viscosity	Not relevant	-	-
Explosive properties	Not relevant	-	-
Oxidizing propertiies	Not relevant	-	-

## 9.2 Other information

PROPERTY	VALUE	METHOD	NOTES
Mischibility	N.A.	-	-
Fat solubility	N.A.	-	-
Conductivity	N.A.	-	-
Characteristic properties of the group of substances	N.A.	-	-

## SECTION 10: Stability and Reactivity

- 10.1. Reactivity:** Stable in normal conditions  
**10.2. Chemical stability:** Stable in normal conditions  
**10.3. Possibilities of hazardous reactions:** None  
**10.4. Conditions to avoid:** Stable in normal conditions  
**10.5. Incompatible materials:** Stable in normal conditions  
**10.6. Hazardous decomposition products:** None

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Relevant hazard classes for product VEG A

**(a) acute toxicity:** Acute Tox. 4 H302

**(b) skin corrosion/irritation:** based on available data, the classification criteria are not met

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- (c) **serious eye damage/irritation:** Eye Dam. 1 H318  
(d) **respiratory or skin sensitisation:** based on available data, the classification criteria are not met  
(e) **germ cell mutagenicity:** based on available data, the classification criteria are not met  
(f) **carcinogenicity:** based on available data, the classification criteria are not met  
(g) **reproductive toxicity:** based on available data, the classification criteria are not met  
(h) **STOT-single exposure:** based on available data, the classification criteria are not met  
(i) **STOT-repeated exposure:** based on available data, the classification criteria are not met  
(j) **aspiration hazard:** based on available data, the classification criteria are not met

*Toxicological information on main substances of the product:*

Calcium nitrate CAS: 10124-37-5

a) acute toxicity

Test: LD50 – Path: Oral – Species: Rat = 300mg/kg

Ammonium nitrate - CAS: 6484-52-2

a) acute toxicity

Test: LD50 – Path: Oral – Species: Rat = 2950mg/kg

Test: LD50 – Path: Skin – Species: Rat > 5000mg/kg

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Use with good work practices, avoid environmental dispersion. Based on available data, the classification criteria for environmental hazards are not met

**Calcium nitrate CAS: 10124-37-5**

**a) Acute toxicity water:**

Endpoint: LC50 - Fish = 100 mg/l

Endpoint: EC50 - Water flea = 490 mg/l

**c) Toxicity bacteria:**

Endpoint: EC50 - Bacteria = 1 g/L

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Endpoint: NOEC - Bacteria = 180 mg/l

**e) Plant toxicity:**

Endpoint: EC50 - Algae = 1.7 g/L

Endpoint: NOEC - Algae= 1.7 g/L

**Ammonium nitrate - CAS: 6484-52-2**

**a) Acute toxicity water:**

Endpoint: LC50 - Fish = 447 mg/l - h: 48

Endpoint: EC50 - Water flea = 490 mg/l - h: 24

**c) Toxicity bacteria:**

Endpoint: EC50 - Bacteria = 1 g/L - h: 3

Endpoint: NOEC - Bacteria = 180 mg/l - h: 3

**e) Plant toxicity:**

Endpoint: EC50 - Algae = 1.7 g/L - h: 240

Endpoint: NOEC - Algae= 1.7 g/L- h: 240

**Potassium nitrate - CAS: 7757-79-1**

**a) Acute toxicity water:**

Endpoint: LC50 - Fish = 100 mg/l - h: 96

Endpoint: EC50 - Water flea = 490 mg/l - h: 24

**c) Toxicity bacteria:**

Endpoint: EC50 - Bacteria = 1 g/L - h: 3

Endpoint: NOEC - Bacteria = 180 mg/l - h: 3

**e) Plant toxicity:**

Endpoint: EC50 - Algae = 1.7 g/L

Endpoint: NOEC - Algae= 1.7 g/L

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**12.2. Persistence and degradability:** N.A.

**12.3. Bioaccumulative potential:** Calcium nitrate - CAS: 10124-37-5. Low bioaccumulation potential

**12.4. Mobility in soil:** N.A.

**12.5. Results of PBT and vPvB assessment:**

PBT: No.

vPvB: No.

**12.6. Other adverse effects:** None

## **SECTION 13: Disposal considerations**

### **13.1 Waste treatment methods**

Recover wastes if possible and send to authorized waste treatment or incineration centers or according local and national legislation

## **SECTION 14: Transport Information**

**14.1. UN number:** Non hazardous in accordance to transport legislation

**14.2. UN proper shipping name:** N.A.

**14.3. Transport hazard class(es):** N.A.

**14.4. Packing group:** N.A.

**14.5. Environmental hazards:**

ADR- Environmental pollutant: No

IMDG-Marine pollutant: No

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**14.6. Special precautions for user: N.A.**

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code: N.A.**

## **SECTION 15: Regulatory information**

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

D.Lgs. 9/4/2008 n. 81

D.M. Lavoro 26/02/2004 (Professional exposure limits)

Regulation (EC) No 1907/2006 (REACH) and subsequent modifications and supplements

Regulation (EC) No 1272/2008 (CLP) and subsequent modifications and supplements

Required Label elements according to REACH Annex XVII (CE) of regulation (EC) No 1907/2006 (REACH) and subsequent modifications and supplements

**Restrictions relative to the products:** Restriction 3

**Restrictions relative to the substances:** Restriction 30, Restriction 58

**Health controls:** Workers exposed to this chemical agent hazardous for health are subject to health control according to Art. 41 of D.Lgs. 81 of 09/04/2008, with the exclusion of cases as designated by Art. 224 comma 2 of the same regulation

*Where applicable, refer to the following regulations:*

Ministry Circulars 46 and 61 (aromatic amines)

Directive 2012/18/EU (Seveso III)

Regulation 648/2004/EU (Safer detergents for European consumers).

D.L. 3/4/2006 n. 152 (Environmental Regulations)

Directive 2004/42/EU (COV)

**SVHC Substances:** List candidate substances (Art. 59 (EC) No 1907/2006): boric acid, toxic for reproduction

**Restriction relevant to EC Directive 2012/18 (Seveso III):** None

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## 15.2 Chemical Safety Assessment

No chemical safety assessment available for the mixture. Chemical safety assessments for substances available

## SECTION 16: Other information

### 16.1 Abbreviations

Legend to abbreviations and acronyms used in the SDS:

H360FD May damage the unborn child

H302 Harmful if swallowed

H318 Causes serious eye damage

H272 May intensify fire; oxidizer

H319 Causes serious eye irritation

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS: Chemical Abstracts Service (divisione della American Chemical Society)

CLP: Classification, Labeling, Packaging

DNEL: Derived No Effect Level

EINECS: European INventory of Existing Commercial chemical Substances

GefStoffVO: Germany Hazardous Substances Ordinance

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

IATA: International Air Transport Association

IATA-DGR: International Air Transport Association Dangerous Goods Regulamentation

ICAO: International Civil Aviation Organization

ICAO-TI: International Civil Aviation Organization Technical Information

IMDG: International Maritime Dangerous Goods Code

INCI: International Nomenclature of Cosmetic Ingredients

KSt: Explosion Coefficient

LC50: Median lethal concentration

LD50: Median lethal dose

PNEC: Predicted no-effect concentration

RID: Regulation concerning the International Carriage of Dangerous Goods by Rail

STA: Acute toxicity estimation

STAmix: Acute toxicity estimation (Mixtures)

STEL: Short Term Exposure Limit

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STOT: Specific target organ toxicity  
 TLV: Threshold Limit Value  
 TWA: Time-weighted average  
 WGK: German Water Endangerment Class

HAZARD CLASS	CODE	DESCRIPTION
Ox. Sol. 2	2.14/2	May intensify fire; oxidizer; Cat. 2
Ox. Sol. 3	2.14/3	May intensify fire; oxidizer; Cat. 3
Acute Tox. 4	3.1/4/Oral	Oral acute toxicity, Cat. 4
Eye Dam. 1	3.3/1	Eye Damage, Cat. 1
Eye Irrit. 2	3.3/2	Eye Irritation, Cat. 2
Repr. 1B	3.7/1B	Toxic for reproduction, Cat. 1B

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

Classification according to Regulation (EC) 1272/2008	Classification procedure
Acute Tox. 4, H302	Calculation method
Eye Dam. 1, H318	Calculation method

### 16.3 Key literature references and sources for data

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities  
 SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold; CCNL - Allegato 1;  
 Istituto Superiore di Sanità - Inventario Nazionale Sostanze Chimiche

### 16.4 Further information

Given information are based upon the knowledge to the date reported in the SDS. Information refers exclusively to the specified product and do not constitute guarantee of particular quality. The user must ensure the appropriateness of the information in relation with the intended use. This SDS cancels and replaces previous versions.