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VALAGRO Safety Sheet

Date: Monday, October 12, 2015 Rev. 1.0

Product: 10968

Code: Boroplus

Print Date: 12 October 2015

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## **SAFETY SHEET**

### **Boroplus**

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#### **SECTION 1: IDENTIFICATION**

1.1. Product Identifier used on the label

Substance identification:

Chemical name: orthoboric acid, compound with 2-aminoethanol

Numero CAS: 26038-87-9

Numero EC: 247-421-8

Trade name: Boroplus

1.2. Other means of identification

Trade code: 10968

1.3. Recommended use of the chemical and restrictions on use:

Fertilizer

1.4. Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:

Produced and packed by:

VALAGRO Spa

Via Cagliari, 1 Zona Industriale

66041 Atessa (CH) ITALY

Tel. (+39) 08728811 Fax (+39) 0872881382

www.valagro.com

Distributed and guaranteed by:

Valagro USA Inc.

19500 Hwy 249, suite 245 - Houston TX 77070

Tel (281) 664 8700 - Fax (281) 664 8701

Competent person responsible for the safety data sheet:

[regulatory@valagro.com](mailto:regulatory@valagro.com)

1.4. Emergency phone number

Valagro USA Inc

Tel (281) 664 8700 - Fax (281) 664 8701

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#### **SECTION 2: HAZARD(S) IDENTIFICATION**

2.1. Classification of the substance or mixture

Classification according to OSHA Hazard Communication Standard (29 CFR 1910.1200):

The product is not classified as dangerous

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

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Other Hazards:

No other hazards

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### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substances

Orthoboric acid, compound with 2-aminoethanol

Nr. CAS : 26038-87-9 ; Nr. CE : 247-421-8

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do not under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

Inhalation:

The inhalation of the product is unlikely under normal working conditions;

Eyes and skin:

May cause irritation to skin and eyes according to the contact time with the product

Ingestion:

may cause irritation to the gastrointestinal tract

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

In case of incident seek medical advice showing the safety data sheet

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media:

Water.

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

Extinguishing media which must not be used for safety reasons:

None in particular.

#### 5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

#### 5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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### SECTION 6: Accidental release measures

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

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For non-emergency personnel:

No action shall be taken involving any personal risk or without suitable training

Wear protective clothes giving a total skin protection, gloves and safety glasses.

Keep away from the affected area people not involved in the emergency intervention.

Ensure adequate ventilation.

Alert the internal emergency team.

For emergency responders:

Wear protective clothes giving a total skin protection, PVC gloves and safety glasses.

See protective measures under point 7 and 8.

Remove people to safety.

6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Dilute with water and retain contaminated wash water and dispose in authorized facilities or pick up in clean plastic labeled containers and reuse as fertilizer.

In case of seepage into waterways, soil or sewage system inform authorities responsible.

Material suitable for collecting: absorbent material, soil, sand

Collect the product absorbed for example using shovel and broom

In case of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

Wash with plenty of water.

Collect the product absorbed for example using shovel and broom

6.4. Reference to other sections

See also section 8 and 13

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**SECTION 7: Handling and storage**

7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

Oxidizing and reducing agents

Instructions as regards storage premises:

Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

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

8.1. Control parameters

No occupational exposure limit available

8.2. Exposure controls

The personal protective equipment must be compliant to the regulation UNI –EN in force

Eye protection:

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Wear safety glasses according to the standard EN 166, don't use contact lenses..

Protection for skin:

Use clothing that provides comprehensive protection to the skin

Protection for hands:

Wear PVC (polyvinyl chloride) or PVC gloves according to the standard EN 374

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

N.A.

Environmental exposure controls:

None

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**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Appearance and colour:	Yellow liquid
Odour:	N.A.
Odour threshold:	N.A.
pH at 20°C:	7.7
Melting point / freezing point:	N.A.
Initial boiling point and boiling range:	N.A.
Solid/gas flammability:	N.A.
Upper/lower flammability or explosive limits:	N.A.
Vapour density:	N.A.
Flash point:	N.A.
Evaporation rate:	N.A.
Vapour pressure:	N.A.
Density:	1,4 Kg/dm <sup>3</sup> at 20°C
Solubility in water:	soluble
Solubility in oil:	N.A.
Partition coefficient (n-octanol/water):	N.A.
Auto-ignition temperature:	N.A.
Decomposition temperature:	N.A.
Viscosity:	N.A.
Explosive properties:	N.A.
Oxidizing properties:	N.A.

**9.2. Other information**

Miscibility:	N.A.
Fat Solubility:	N.A.
Conductivity:	N.A.
Substance Groups relevant properties	N.A.

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**SECTION 10: Stability and reactivity****10.1. Reactivity**

Stable under normal conditions of handling and storage.

**10.2. Chemical stability**

Stable under normal conditions of handling and storage.

**10.3. Possibility of hazardous reactions**

N.A.

**10.4. Conditions to avoid**

Stable under normal conditions.

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- Avoid high temperatures
- 10.5. Incompatible materials
  - Oxidizing and reducing agents
- 10.6. Hazardous decomposition products
  - Monoethanolamine and boric acid.

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**SECTION 11: Toxicological information**

11.1. Information on toxicological effects

Orthoboric acid, compound with 2-aminoethanol; Nr. CAS: 26038-87-9

a) acute toxicity:

LD50/LC50:

Dermal, Rat

Value: > 2000 mg/kg

Dermal, Pig

Value: <2000 mg/kg

LD50

Oral, Rat

Value > 2000 mg/kg

NOAEL (oral toxicity, repeated dose)

Oral, Rat ,28 days

Value: = 1000 mg/kg

b) skin corrosion / irritation;

Rabbits (New Zealand White): non-irritating, (1993).

c) serious eye damage / eye irritation;

Rabbits (New Zealand White): moderately irritating, 1998

d) respiratory or skin sensitization

Sensitization: (Guinea Pig): negative

e) germ cell mutagenicity;

Mammalian chromosome aberration test: Negative.

f) carcinogenicity;

Mammalian chromosome aberration test: Negative.

g) Not classified as carcinogenic reproductive toxicity;

Mammalian chromosome aberration test: Negative.

h) Specific target organ toxicity (STOT) - single exposure;

N.A.

i) Specific target organ toxicity (STOT) - repeated exposure;

N.A.

j) Aspiration hazard.

N.A.

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**SECTION 12: Ecological information**

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.

Orthoboric acid, compound with 2-aminoethanol; Nr. CAS: 26038-87-9

aquatic toxicity

EC50 24 h

Daphnia magna

Value > 1000 mg / l

EC50 48 h

Daphnia magna

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Value = 496 mg / l

EC50 72 h

Alga Pseudokirchneriella subcapitata

Value = 26 mg / l

IC50 3 h

aquatic microorganisms, activated sludge

Value > 100 mg / l

LC50 3 h

Fish Brachydanio rerio

Value ≥ 100 mg / l

LC50 96 h

Fish Cyprinus carpio

Value = 617 mg / l

12.2. Persistence and degradability

The product contains biodegradable organic substance

Biodegradation 28 Days

Value ca. 73%

Biodegradazione 10 days

Value > 60%

Readily biodegradable.

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

The product is soluble and mobile in both terrestrial and aquatic compartments

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None known

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**SECTION 13: Disposal considerations**

13.1. Waste treatment methods

- Product: Recover if possible. Operate according to local and national.

Contact local authorities who will provide guidance regarding the disposal of special waste.

- Packaging: Dispose according to current regulations

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**SECTION 14: Transport information**

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

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

14.6. Special precautions for user

N.A.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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N.A.

**SECTION 15: Regulatory information**

Hazard Communication Standard (HCS) Haz Com 2012

OSHA, 29 CFR 1910.1200(g) and Appendix D. United Nations Globally Harmonized System of Classification and Labelling of Chemicals (GHS), third revised edition, United Nations, 2009. Hazard Communication Standard

United Nations Recommendations on the Transport of Dangerous Goods.

OSHA Permissible Exposure Limit

[29 CFR 1926.55 Appendix A](#)

American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Value (TLV)

National Institute for Occupational Safety and Health (NIOSH) Recommended Exposure Limit (REL)

Chemical Abstracts Service (CAS) Registry Number

**SECTION 16: Other information**

Date of preparation of the SDS: revision 1.0, date 12 October 2015.

This document was prepared by a competent person who has received appropriate training.

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This SDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
LTE:	Long-term exposure.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STE:	Short-term exposure.
STEL:	Short Term Exposure limit.

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STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day.  
(ACGIH Standard).  
WGK: German Water Hazard Class.  
N.A.: No data available