Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)

Trade name :	VITALIZE		
Revision date :	31.03-2015	**Version :**	3.1.2
Date of print :	03-04-2015		

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier
AB YELLOW

1.2 Relevant identified uses of the substance or mixture and uses advised against
Relevant identified uses
EC FERTILIZER: Mixture of micro-nutrients Boron(B), Copper(Cu), Molybdenum(Mo), Zinc(Zn)
Micro-nutrients (percentage by weight):
Boron(B) water-soluble: 0.2%
Copper(Cu) water-soluble: 0.2%
Molybdenum(Mo) water-soluble: 0.1%
Zinc(Zn) water-soluble: 1.5%

NON-HAZARDOUS COMPONENTS
Polyethylene Glycol: 44,4%
Silicon Dioxide (hydrated): 5,1%
H2O (Demi water): 48,5%

Uses advised against
This product should not be used for purposes other than the applications referred to above.

1.3
Details of distributor
Mills Nutrients b.v.
Street: Aalsmeerderweg 249k
Postal code / City: 1432 CM Aalsmeer
Country: the Netherlands
Mobil: 0031 (0)6 24512470
Telephone: 0031 (0)20 2233957
Web: www.Mills-nutrients.com

1.4 Emergency Telephone Number
0031 (0)20 2233957

2. Hazards identification

2.1 Classification of the substance or mixture
Classification according to Directive 67/548/EEC or 1999/45/EC
Causes severe burns. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
C ; R 35 · R 52/53

Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hazard classes and hazard categories
Skin Corr. 1A · Aquatic Chronic 3
Physical hazards
Flammable Liquids : No classification
Health hazards
Skin Corrosion / Irritation : Category 1A
Environmental hazards
Chronic aquatic toxicity : Category 3

Skin Corr. 1A · Aquatic Chronic 3

Skin Corr. 1A ; H314 - Skin corrosion/irritation : Category 1A ; Causes severe skin burns and eye damage.

Aquatic Chronic 3 ; H412 - Hazardous to the aquatic environment : Category 3 ; Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (67/548/EEC or 1999/45/EC)

Hazard symbols and hazard statements of dangerous substances and preparations

R-phrases

35	Causes severe burns.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases

61	Avoid release to the environment. Refer to special instructions / safety data sheet.
1/2	Keep locked up and out of the reach of children.
35	This material and its container must be disposed of in a safe way.
36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
64	If swallowed, rinse mouth with water (only if the person is conscious).
45	In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

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

Hazard pictograms

Corrosion (GHS05)

Signal word

Danger

Hazard Statements

H314	Causes severe skin burns and eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P310	Immediately call a POISON CENTER or doctor/physician.
P405	Store locked up.
P501	Dispose of contents/container to hazardous waste in accordance with local, state or national legislation.

2.3 Other hazards

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

2.4 Additional information

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII

3. Composition/information on ingredients

3.2 Mixtures

Ingredients

PEG 400 ; EC No : 500-038-2; CAS No. : 25322-68-3

AQUA ; REACH registration No. : Annex IV ; EC No : 231-791-2; CAS No. : 7732-18-5

POTASSIUM CHLORIDE ; EC No : 231-211-8; CAS No. : 7447-40-7

ZINC CHLORIDE ; EC No : 231-592-0; CAS No. : 7646-85-7

Classification 67/548/EEC :	N ; R50/53 C ; R34 Xn ; R22
Classification 1272/2008 [CLP] :	Skin Corr. 1B ; H314 Acute Tox. 4 ; H302 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

BORIC ACID ; EC No : 233-139-2; CAS No. : 10043-35-3

Classification 67/548/EEC :	Repr. Cat.2 ; R60 Repr. Cat.2 ; R61
Classification 1272/2008 [CLP] :	Repr. 1A ; H360FD

COPPER-II-SULFAT-5-HYDRAT ; EC No : 231-847-6; CAS No. : 7758-99-8

Classification 67/548/EEC :	N ; R50/53 Xn ; R22 Xi ; R36/38
Classification 1272/2008 [CLP] :	Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Eye Irrit. 2 ; H319 Aquatic Acute 1 ; H400 Aquatic Chronic 1 ; H410

SODIUM MOLYBDATE DIHYDRATE ; EC No : 231-551-7; CAS No. : 10102-40-6

Classification 67/548/EEC :	Xn ; R20/21/22 Xi ; R36/37/38
Classification 1272/2008 [CLP] :	Acute Tox. 3 ; H311 Acute Tox. 4 ; H302 Acute Tox. 4 ; H332 Skin Irrit. 2 ; H315 Eye Irrit. 2 ; H319 STOT SE 3 ; H335

Additional information
Full text of R-, H- and EUH-phrases: see section 16.

4. First aid measures

4.1 Description of first aid measures

General information
When in doubt or if symptoms are observed, get medical advice.

After inhalation
No special measures are necessary.

In case of skin contact
Wash immediately with: Water and soap. Change contaminated, saturated clothing. Wash contaminated clothing prior to re-use.

After eye contact
Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion
Call a physician in any case! Do not induce vomiting. If major quantitiy of dust is swallowed or inhaled, immediately drink: Water

4.2 Most important symptoms and effects, both acute and delayed
The following symptoms may occur: No known symptoms to date. Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed
None

5. Firefighting measures

5.1 Extinguishing media
None

5.2 Special hazards arising from the substance or mixture
None

5.3 Advice for firefighters
None

5.4 Additional information
Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
For non-emergency personnel
Protective equipment
Avoid contact with skin, eyes and clothes. Use personal protection equipment.
Emergency procedures
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.2 Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Make sure spills can be contained, e.g. in sump pallets or kerbed areas. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3 Methods and material for containment and cleaning up
For containment
Collect in closed and suitable containers for disposal. Treat the recovered material as prescribed in the section on waste disposal.
For cleaning up
Suitable material for taking up: Sand. Absorbing material, organic.

6.4 Reference to other sections
See protective measures under point 7 and 8.

7. Handling and storage



7.1 Precautions for safe handling
None

7.2 Conditions for safe storage, including any incompatibilities
Technical measures and storage conditions
Keep/Store only in original container. Suitable container/equipment material: Stainless steel. Polyethylene (PE)
Unsuitable container/equipment material: Butyl caoutchouc (butyl rubber).
Hints on storage assembly
Storage class : 8B
Storage class (TRGS 510) : 8B

7.3 Specific end use(s)
None

8. Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

POLYETHYLENE GLYKOLS > 400 ; CAS No. : 25322-68-3

Limit value type (country of origin) :	TRGS 900 (D)
Parameter :	E: respirable fraction
Limit value :	1000 mg/m^3
Peak limitation :	8(II)
Remark :	Y
Version :	01-03-2011

BORIC ACID ; CAS No. : 10043-35-3

Limit value type (country of origin) :	TRGS 900 (D)
Limit value :	0,5 mg/m^3
Peak limitation :	2(I)
Remark :	Y
Version :	01-03-2011

8.2 Exposure controls

Personal protective equipment



Eye / face protection

Eye glasses with side protection

Skin protection

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. DIN-/EN-Norms DIN EN 374 DIN EN 420 Suitable material NBR (Nitrile rubber). PVA (Polyvinyl alcohol). PVC (Polyvinyl chloride)

General health and safety measures

Immediately remove any contaminated clothing, shoes or stockings. Wash contaminated clothing prior to re-use.

Environmental exposure controls

See chapter 7. No additional measures necessary.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Odour threshold

No data available

Safety relevant basis data

Physical state :		liquid	
Colour :		light green	
Odour :		acidic	
Boiling temperature/boiling range :	(1013 hPa)	No data available	
Flash point :		No data available	
Vapour pressure :	(50 °C)	No data available	
Density :	(20 °C)	1 - 1,1	g/cm^3

Solvent separation test :	(20 °C)	No data available
pH value :		< 1,5

9.2 Other information
None

10. Stability and reactivity

10.1 Reactivity
not applicable

10.2 Chemical stability
Stable under normal conditions of use

10.3 Possibility of hazardous reactions
No information available.

10.4 Conditions to avoid
No information available.

10.5 Incompatible materials
Strong oxidizers

10.6 Hazardous decomposition products
No information available.

11. Toxicological information

11.1 Information on toxicological effects

Irritant and corrosive effects

Primary irritation to the skin
Irritant.

Irritation to eyes
Irritant.

Irritation to respiratory tract
No data available

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Carcinogenicity
This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Germ cell mutagenicity/Genotoxicity
No indications of human germ cell mutagenicity exist.

Reproductive toxicity
This substance does not meet the criteria for classification as CMR category 1A or 1B according to CLP.

Specific target organ toxicity (single exposure)
not applicable

Specific target organ toxicity (repeated exposure)
Prolonged or repeated contact with skin or mucous membrane result in irritation symptoms such as redness, blistering, dermatitis, etc.

12. Ecological information

12.1 Toxicity
Harmless to aquatic organisms up to the tested concentration

12.2 Persistence and degradability
Biodegradable.

12.3 Bioaccumulative potential
No indication of bioaccumulation potential.

12.4 Mobility in soil
No information available.

12.5 Results of PBT and vPvB assessment
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII

12.6 Other adverse effects
None

12.7 Further ecological information
None

13. Disposal considerations

13.1 Waste treatment methods
Delivery to an approved waste disposal company. Contaminated packages must be completely emptied and can be re-used following proper cleaning. Handle contaminated packages in the same way as the substance itself.

14. Transport information

14.1 UN number
The product isn't dangerous for this category

14.2 UN proper shipping name
Land transport (ADR/RID)
The product isn't dangerous for this category
Sea transport (IMDG)
The product isn't dangerous for this category
Air transport (ICAO-TI / IATA-DGR)
The product isn't dangerous for this category

14.3 Transport hazard class(es)
The product isn't dangerous for this category

14.4 Packing group
The product isn't dangerous for this category

14.5 Environmental hazards
Land transport (ADR/RID) : No
Sea transport (IMDG) : No
Air transport (ICAO-TI / IATA-DGR) : No

14.6 Special precautions for user
None

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
not applicable

15. Regulatory information

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

National regulations

Water hazard class (WGK)

Class : 2 (Hazardous to water) Classification according to VwVwS

15.2 Chemical safety assessment

Chemical safety assessments for substances in this preparation were not carried out.

16. Other information

16.1 Indication of changes

None

16.2 Abbreviations and acronyms

None

16.3 Key literature references and sources for data

None

16.5 Relevant R-, H- and EUH-phrases (Number and full text)

H302	Harmful if swallowed.
H314	Causes skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
22	Harmful if swallowed.
34	Causes burns.
36/38	Irritating to eyes and skin.
52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

16.6 Training advice

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.