Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH)
regulation (EU) No 453/2010 and regulation (EC) No 830/2015

Version: 1.1 *Revision date: 14/09/2017*
Date of previous issue:

Fertilizer Nutrifert poly-bor Golden 12-8-18+12SO_3+2MgO+0,3B

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Commercial Product Name : Fertilizer Nutrifert poly-bor Golden 12-8-18+12SO_3+2MgO+0,3B

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

Use of the Substance/Mixture : Fertilizer. For consumers and professional users.

1.3 Details of the supplier of the safety data sheet

Company (Distributor) : HELLAGROLIP SA
Pentelis 34A
175 64, Palaio Faliro
e-mail: g.director@hellagrolip.com
www.hellagrolip.com

Telephone : +30 2510 317127 και +30 2130 037616

Fax : +30 210 9408198

1.4 Emergency telephone number

In case of medical emergencies, please contact your local poison control center.
Company's Telephone: +30 2510 317127 και +30 2130 037616 (08:30 to 16:30)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008) - CLP

Eye Irrit. 2	H319: Causes serious eye irritation.
Aquatic Chronic 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements CLP

Hazard pictograms:

GHS07

Signal word

Warning

Hazard Statements:

H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements:

General:

P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.

Prevention

P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

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

Storage:

Disposal

P501: Dispose of contents/container to local/regional/national/international regulations.

Hazardous components which must be listed on the label:

- Ammonium nitrate

2.3 Other hazards

None known.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Mixtures

Classified components according to EU Chemicals Legislation:

Chemical name	CAS No EINECS No Registration No	Classification (1272/2008/EC)	Concentration [%]
Ammonium nitrate	6484-52-2 229-347-8 01-2119490981-27-XXXX	Ox. Sol. 2, H272 Eye Irrit. 2, H319	15 %
Magnesium Oxide	1309-48-4 215-171-9 ---	Aquatic Chronic 1 , H410	2 %

Further information

The components in this formulation do not meet the criteria for classification according to Regulation (EC)No. 1907/2006 as PBT or vPvB.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

General advice : In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Take off contaminated clothing and shoes immediately.

If inhaled : Avoid dust formation during use.
Inhalation of dust may cause irritation of the respiratory system.
In case of respiratory tract irritation, consult a physician.

In case of skin contact : After contact with skin, first remove product with a dry cloth and then wash the skin with plenty of water.

Take off immediately all contaminated clothing and wash it before reuse.

In case of eye contact : In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids open.

If swallowed : Typically no exposure pathway.
If accidentally swallowed, rinse the mouth with plenty of water (only if the person is conscious) and ask immediately for medical help..

4.2 Most important symptoms and effects, both acute and delayed

Symptoms upon:

- **Inhalation:** Cough, Headache, Sore throat
- **Skin contact:** Redness
- **Eye contact:** Causes serious eye irritation.
- **Ingestion:** Abdominal pain, Convulsions, Diarrhoea, Dizziness, Vomiting, Weakness

4.3 Indication of any immediate medical attention and special treatment needed

Provide symptomatic treatment..

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media : Water, water spray.

Unsuitable extinguishing media : Powder, foam or sand.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting : In case of a fire or decomposition involving various nitrogen-based fertilizers, hazardous decomposition products will be formed, such as: irritating, corrosive and/or toxic gases. Exposure to decomposition products may cause serious damage to health.
No action shall be taken involving any personal risk or without suitable training. Keep away all personnel not involved in firefighting team.
Approach the fire from upwind to avoid exposure to toxic fumes.
If it is possible move the product containers from the fire area without risk. Use self-contained breathing apparatus when entering fumes.
For cooling of packages that are close to the fire area use: water spray.

5.3 Advice for firefighters

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for incidents with chemical substances.

Further information : Attention! The product contains oxidizing agent at a rate below the classification limit (see section 3), which may

intensify fire.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local authority requirements.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

See protective measures under point 7 and 8.

Avoid inhalation of dust. Ensure sufficient ventilation especially in enclosed spaces.

Eliminate all ignition sources. Keep all unnecessary personnel away. Wear gloves and overalls. Do not touch or walk through spilt material.

6.2 Environmental precautions

Heavy spillage may cause adverse environmental impact in surface waters, such as eutrophication or contamination by nitrates. In case of contamination of rivers and lakes or drains, inform respective authorities.
Create mounds with suitable materials e.g. sand, to prevent molten ammonium nitrate from entering the drains.

6.3 Methods and material for containment and cleaning up

If it is possible stop leak of the product without risk. Keep combustibles (wood, paper, oil, etc.) away from spilled material.
During cleanup, you should wear appropriate PPE, to prevent any skin/eye contact and inhalation of dust.
Avoid creating dust during clean-up. Do not use compressed air to clean up spills.
Environmental manager must be informed immediately of all major spillages. Collect the uncontaminated dispersed product with a clean shovel and place the material into a clean, dry container/bag for re-use, ONLY if it is not contaminated by substances such as organic materials, metal powders, compounds containing chlorine and alkalis which may reduce the resistance of AN to explosion. Otherwise, carry out a risk assessment, as the risk depends on the nature and quantity of the contaminant.
Products which are out-of-specification or contaminated by incompatible materials (see 10.5), should be disposed of as hazardous waste according to national regulations.

6.4 Reference to other sections

Refer to section: 7, 8, 11, 12 and13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling : Avoid eye and excessive skin contact. Use only with adequate ventilation.
Wear personal protection equipment (Refer to section 8).
Do not eat, drink or smoke when handling.
Wash hands after handling.

Advice on protection against fire and explosion : Keep away from heat and sources of ignition - No smoking. The risk of fire (or decomposition) can increase particularly if the product is spilled and contaminated with combustible materials such as coal, grain, sawdust, oil, grease or elemental sulphur.

Dust explosion class : Not applicable.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Store in accordance with local regulations.
Store away from combustible materials. Handle bags with care. Store in original container protected from direct

sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10).
Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

Advice on common storage : Separate from reducing agents, combustible or flammable materials.
Keep away from food, drink and animal feedingstuffs.

Storage Temperature : Ambient temperature (5 - 30°C).

Other data : The product is hygroscopic.

7.3 Specific end use(s)
Fertilizer.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Chemical name	EINECS (1)	CAS-No (2)	Note: (3)	WEL-TWA (4)		WEL-STEL (5)		Source
				ppm(6)	mg/m³ (7)	ppm(6)	mg/m³ (7)	
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(1) *EINECS: European Inventory of Existing Chemical Substances*
(2) *CAS: Chemical Abstract Service Registry Number.*
(3) *The notation "skin" (D), implies the possibility of a significant absorption through the skin when in direct contact with the substance.*
(4) *WEL-TWA: Workplace Exposure Limit - Time-Weighted Average value of exposure over the course of an 8 hour work shift.*
(5) *WEL-STEL: Workplace Exposure Limit - Short-term exposure limit (15-minute reference period)*
(6) *ppm: parts per million volume in air (ml/m3).*
(7) *mg/m³: measured at a temperature of 20 °C and atmospheric pressure (101,3 kPa).*

8.2 Exposure controls
Appropriate engineering controls
Prevent generation of dust. Provide adequate ventilation in work and storage areas.

Personal protective equipment

Respiratory protection : Special respiratory protection measures are not required when applied under normal or reasonably foreseeable conditions of use and in a well ventilated area. In case of inadequate ventilation and/or dust formation wear respiratory protection.
Recommended: half-mask for dust/particles (EN 149) or half-mask (EN 140) with filter type P1 or FFP1 for dust (EN 143).

Hand protection
Material : Impervious chemical resistant protective gloves (EN 374, EN 420) and gloves for protection from mechanical risks (EN 388).

Glove thickness : ---
Break through time : ---

General remarks : Final selection of glove material must be made taking the breakthrough times, permeation rates and degradation

into account.

Eye/face protection : In case of splash risk. wear safety glasses with side-shields conforming to EN166.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Recommended protection measures which should be taken into account, when handling chemicals:
- General practical hygiene measures.
- Do not breathe vapour /cloud /gas /dust.
- When using do not eat, drink or smoke.
- Wash hands before breaks and at the end of work.
- Avoid contact with skin, eyes and clothing. Take off contaminated clothing and wash before reuse.

Environmental exposure controls

General advice : Do not dispose into surface water or sanitary sewer system. Prevent entry into sewers and waterways, dispose of in accordance with all federal, state and local environmental regulation.
Prevent further leakage or spillage if possible without risk.
If the product contaminates rivers and lakes, inform respective authorities.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	: Solid
Colour	: Yellow
Odour	: Characteristic
Flash point	: The product itself is not combustible
Lower Flammable Limit	: No data available
Upper Flammable Limit	: No data available
Autoignition temperature	: No data available
Explosive properties	: Ammonium nitrate melts on heating and further heating can cause decomposition, releasing toxic fumes containing nitrogen oxides. Heating under strong confinement can lead to explosive behaviour. This product has high resistance to detonation
Lower explosive limit	: Not applicable
Upper explosive limit	: Not applicable
pH (20 °C)	: No data available
Boiling point/boiling range (°C)	: Not applicable
Vapour pressure	: Not applicable
Density	: Not applicable
Relative density	: Not applicable
Solubility in water	: No data available
Solubility in other solvents	: No data available
Partition coefficient n-	: No data available

octanol/water:
Viscosity, dynamic : Not applicable
Viscosity, kinematic : Not applicable
Oxidising properties : The product contains oxidizing agent at a rate below the classification limit (see section 3), which may intensify fire.

9.2 Other information
None known.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity
Contamination with incompatible materials such as acids, chromates, chlorinated chemicals and various metals such as zinc and copper and their salts may increase the risk of decomposition.

10.2 Chemical stability
The material is stable under normal conditions of use and storage and will not decompose spontaneously. Though, may decompose when heated. The risk of decomposition dependents upon the temperature of the heat source, the duration of exposure to the heat source and the containment of the fertilizer.

10.3 Possibility of hazardous reactions
No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid
May decompose when heated. Cross-contamination of the fertilizer with other chemicals must be avoided.

10.5 Incompatible materials
Materials to avoid: Reducing agents, Powdered metals, Strong acids.

10.6 Hazardous decomposition products
Under normal conditions of storage and use, hazardous decomposition products is not possible to be produced. May decompose when heated. Decomposition may release toxic gases such as NOx, N_2O, ammonia, or nitric acid vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects
Dangerous health implications
In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits (see section 8), it may result in adverse effects on health depending on the means of exposure.

11.1.1. Ingestion:
Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for ingestion (see section 3).

11.1.2. Inhalation:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation (see section 3).

11.1.3. Contact with the skin and the eyes:
Causes serious eye irritation. (see section 3).

11.1.4. CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned (see section 3).

11.1.5. Respiratory or skin sensitisation:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensibilizing effects (see section 3).

11.1.6. Specific target organ toxicity (STOT)-single exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. (see section 3).

11.1.7. Specific target organ toxicity (STOT)-repeated exposure:
Based on available data, the classification criteria are not met, as it does not contain substances classified, as dangerous for inhalation (see section 3).

11.1.8. Aspiration hazard:
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect (see section 3).
Given the available data of the individual components

Acute toxicity (oral)
Ammonium nitrate : LD50 (oral-rat): 2.950 mg/kg (OECD 401)
Magnesium Oxide : LD50 (oral-rat): 3870-3990 mg/kg.

Acute toxicity (inhalant)
Ammonium nitrate : LC50 (inhalation-rat): 88,8 mg/L
Magnesium Oxide : No data available

Acute toxicity (dermal)
Ammonium nitrate : LD50 (dermal-rat): > 5.000 mg/kg (OECD 402)
Magnesium Oxide : No data available

Acute toxicity (other routes of administration)
Ammonium nitrate : No data available
Magnesium Oxide : No data available

Skin corrosion/irritation
Skin irritation
Ammonium nitrate : No data available
Magnesium Oxide : No data available

Serious eye damage/eye irritation
Ammonium nitrate : No data available
Magnesium Oxide : No data available

Respiratory or skin sensitization
Ammonium nitrate : No data available
Magnesium Oxide : No data available

CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction)
Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned (see section 3).

STOT - single exposure
Ammonium nitrate : No data available
Magnesium Oxide : No data available

STOT - repeated exposure
Ammonium nitrate : No data available
Magnesium Oxide : No data available

Aspiration hazard
Aspiration toxicity
Ammonium nitrate : No data available
Magnesium Oxide : No data available

Neurological effects

Ammonium nitrate : No data available
Magnesium Oxide : No data available

Toxicology Assessment

Toxicology, Metabolism, Distribution
No data available

Acute effects
No data available

Further information
No data available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish
Ammonium nitrate : No data available
Magnesium Oxide : No data available

Toxicity to daphnia and other aquatic invertebrates
Ammonium nitrate : EC50 (Daphnia): 490 mg/kg
Magnesium Oxide : No data available

Toxicity to bacteria:
Ammonium nitrate : LC50: 1.700 mg/L
Magnesium Oxide : No data available

12.2 Persistence and degradability

Biodegradability : The product is expected to be biodegradable.

12.3 Bioaccumulative potential

Bioaccumulation : No data available

12.4 Mobility in soil

Surface tension : No data available

12.5 Results of PBT and vPvB assessment

The product does not meet the criteria for classification as PBT or vPvB.

12.6 Other adverse effects

Additional ecological information : Prevent surface and ground-water infiltration, as well as ground penetration.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Advice on disposal and packaging : Disposal:
According to National and European regulations. It should not be disposed of with household wastes. The appropriate waste code(s) should be assigned by the user, based on the product usage.

The following Waste Codes are only suggestions:

Waste Code (EWC) : EWC disposal code no. (unused product):
06 10 02 wastes containing dangerous substances
(M) = Mirror entry

Disposal of uncleaned packaging (EWC) : EWC disposal code no. (uncleaned packaging):
15 01 10*(M) packaging containing residues of or

contaminated by dangerous substances
(M) = Mirror entry
Note: After rinsing with plenty of water, empty bags can be transported to licensed units / management organizations for recycling.

SECTION 14: TRANSPORT INFORMATION

The product is not subject to international regulations governing the transport of dangerous goods (ADR/RID, IMDG, ICAO/IATA).

SECTION 15: REGULATORY INFORMATION

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

VOC (1999/13/EC) : Not applicable.

Seveso III - DIRECTIVE 2012/18/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on the control of major-accident hazards involving dangerous substances : Not applicable.

Further information : Fertilizer. For use by professional users and the general public.

15.2 Chemical safety assessment

The Chemical Safety Assessments of the mixture's components have been performed.

SECTION 16: OTHER INFORMATION

This product is not subject to Regulation (EU) 98/2013, but all suspicious transactions, disappearances and thefts should be reported to the relevant authority.

Full text of H-Statements referred to under sections 2 and 3

H272: May intensify fire; oxidiser.
H302: Harmful if swallowed.
H318: Causes serious eye damage.
H319: Causes serious eye irritation.
H410: Very toxic to aquatic life with long lasting effects.
H412: Harmful to aquatic life with long lasting effects.

Revised points:

SECTION 16

Acronyms and abbreviations

ADR:	European **A**greement concerning the International Carriage of **D**angerous Goods by **R**oad (2015)
CAS No:	**C**hemical **A**bstracts **S**ervice Number
EmS:	**Em**ergency **S**chedules
EINECS No:	**E**uropean **I**nventory of **E**xisting **C**ommercial **C**hemical **S**ubstances Number
GHS:	**G**lobally **H**armonized **S**ystem of Classification and Labelling of Chemicals
IATA-DGR:	**I**nternational **A**ir **T**ransport **A**ssociation's-**D**angerous **G**oods **R**egulations (56th edition)
ICAO-TI:	**I**nternational **C**ivil **A**viation **O**rganization's-**T**echnical **I**nstructions
IMDG Code:	**I**nternational **M**aritime **D**angerous **G**oods Code (36th - 37th amendment)
RID:	**R**egulations Concerning the **I**nternational Transport of Dangerous Goods by **R**ail

This Safety Data Sheet was elaborated on the basis of information provided by the manufacturer, as well as, suppliers of individual components and on the basis of data in publicly accessible databases.
All information provided herein is deemed reliable and is intended to ensure optimal protection during transport, handling and storage of our products.
However, the present should not be considered as a warranty or quality specification.

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