

[MSDS GENIUS 12-12-36 +TE](#)

[MSDS GENIUS 5-10-40+TE](#)

[MSDS GENIUS 8-16-32 +2MgO+TE](#)

[MSDS GENIUS 12-8-24 +4MgO +TE](#)

[MSDS GENIUS 12-48-8 +TE](#)

[MSDS GENIUS 15-5-35 +TE](#)

[MSDS GENIUS 15-30-15 +TE](#)

[MSDS GENIUS 18-9-27 +TE](#)

[MSDS GENIUS 18-18-18+TE](#)

[MSDS GENIUS 20-5-30+TE](#)

[MSDS GENIUS 20-20-20+TE](#)

[MSDS GENIUS 30-10-10+TE](#)



Clicking on the title will take you automatically to the product you are interested in.

SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 12-12-36 + TE

Catalogue No: PR.183.258

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Solid oxidizing (Category 2), H272

Severe eye damage (Category 1), H318

2.2 Labeling

According to EU Regulation No.1272/2008 [CLP]:



Pictogram :

GHS05

GHS03

Edition Date: 24/8/2022

Edition: 1st

Warning word: **DANGER**

Hazard declarations :

H272: May rekindle fire- oxidizer..

H318: Causes severe eye damage

Protection - Prevention:

P210: Keep away from heat /fires / warm surfaces / flame. — Do not smoke

P221: Take every precaution in order not to avoid mix with gas

P280: Wear protective gloves / protective clothes / means of protection for the eyes / face

Protection-action in case of danger

P378 + P378: In case of a fire: Use water (spray), dry powder, carbon dioxide foam

P305 + P351 + P338: In case of contact with eyes: Wash thoroughly with water. If there are contact lens, remove them, as long as it is easy. Keep washing out.

P310: Call immediately the Poison Centre or a doctor.

Other information:

«It contains: **Potassium nitrate & Potassium sulfate**».

Other dangers

Not known

3 - Composition / Information about the components

3.1. Substance

3.2. Mixture

4 – First Aid

4.1. Description of First Aid measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, carbon dioxide foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

Contact with επαφή με καύσιμο υλικό μπορεί να προκαλέσει πυρκαγιά. Το προϊόν αυτό αυξάνει τον κίνδυνο πυρκαγιάς και μπορεί να συντελέσει σε καύση.

5.3. Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: The product is not flammable. The product is oxidizing and may rekindle the fire. When extinguishing the fire, take into account the prevailing conditions and the immediate environment. Move containers away from the fire area if possible without risk. Contaminated firefighting water must be disposed of in accordance with official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form: Water soluble powder
Color: Blue

Odor:	Odorless
pH in 10% solution (25°C):	3.0-3.5
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	It is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate.
Flammability:	Non flammable
Lower explosion limit:	Not applicable
Upper explosion limit:	>>
Vapor pressure:	Not applicable
Density:	>>
Solubility:	100% water soluble (25°C)
Oxidizing properties:	Non oxidizing
Viscosity:	Not applicable

9.2. Other information

10 – Stability and reactivity

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There are is no information about the product

Swallowing: >>

Skin contact: >>

Comntact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/lt

12 – Ecological information

12.1 Toxicity

Evaluation of the toxicity in aquatic environments: It is very likely that the product does not demonstrate acute toxic effect on aquatic organisms. These declarations derive from the hazardous properties of the single ingredients, as well as from their concentrations in the mixture.

Toxicity on fish: The product has not been tested.

Toxicity in daphnias and other aquatic invertebrates:. The product has not been tested

Toxicity on aquatic plants: The product has not been tested.

Microorganisms/ Effect on activated sludge: No inhibition of the degradative capacity of activated sludge is expected when introduced into biological treatment plants at sufficiently low concentrations. The product has not been tested.

Chronic toxicity on fish: The product has not been tested.

Chronic toxicity on aquatic invertebrates: The product has not been tested.

Evaluation of earth toxicity: The product has not been tested.

12.2 Persistence and degradability

The product has been tested. No persistence is observed. It is degradable.

12.3 Bioaccumulation potential

The product has not been tested. No bioaccumulation is expected in organisms.

12.4 Results of PBT and vPvB assessment

The product does not meet the criteria in order to be classified as PBTs (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), since the single ingredients do not meet the criteria.

12.5 Other negative effects

The product does not contain substances which are referred in the regulation (EU) 1005/2009 as relevant to the substances which destroy the ozone layer.

13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

14 – Transport information

	14.1. UN Number	14.2. Familiar expedition name according UN	14.3. Danger order/orders during transportation	14.4. Packaging group	14.5. Environmental hazards
Land transport ADR /RID	-	-	-	-	-
Sea transport ADN	-	-	-	-	-
Sea transport IMDG	-	-	-	-	-
Air transport IATA/ICAO	-	-	-	-	-

14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

15.1 Regulations/ legislation concerning safety, health and environment about the substance or the mixture

Edition Date: 24/8/2022

Edition: 1st

There is no information available.

15.2 Chemical safety evaluation

There has not been conducted a chemical safety evaluation by the supplier according to Regulation No 1907/2006/EU (REACH).

16 – Other information

The Safety data sheet should be used in combination with the technical documentation of the product. The Safety data sheet is prepared based on information collected up to the day that the Safety Data Sheet is written. It is a guide for the safe use, distribution, storage and transport of the product and it does not intend to provide any warning or detailed description. This information is relevant only for the product. If the product is combined with other material or in procedures other than the ones described this safety data sheet may not be applicable. The Safety data sheet meets the risk criteria of the Regulations of the Tested Products according to the directives of the European Union.

SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 5-10-40 + TE

Catalogue No: PR. 183.261

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLOU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Severe eye damage (Category 1), H318

2.2 Labeling:

According to EU Regulation No.1272/2008 [CLP]:



Pictogram : GHS05

Warning word: DANGER

Hazard declarations:

H318: It causes severe eye damage.

Protection statement – Prevention:

P280: Wear protective gloves / protective clothes / protection for the eyes and face.

Protection

P305 + P351 + P338 : In case of contact with eyes: Wash thoroughly with water. If there are contact lens, remove them, as long as it is easy. Keep washing out.

P310: Call immediately the Poison Centre or a doctor.

Other information :

«It contains: **Potassium sulfate**».

«The product contains Potassium Nitrate at a concentration 21.5% w/w. The product is not oxidizing **given that the product** FAST GROW PLUS 12-12-36 which has a similar chemical composition and concentration of Potassium Nitrate 49,5% w/w was tested regarding its oxidizing behavior (TEST UN Division 5.1: Test O.1 – Test for Oxidizing Solids) and was characterized as non-oxidizing»

2.3. Other hazards

According to the regulation EC No.1272/2008 [CLP]:

Not known

3 - Composition / Information about the components

3.1. Substance

Not applicable

3.2. Mixture

4 – First Aid

4.1 First aids

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known.

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

5.3 Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: This product is not combustible. During fire extinction take into consideration the local circumstances and the surrounding environment. Contaminated fire-extinguishing water must be discarded according to the official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored

separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form:	Water soluble powder
Color:	Blue
Odor:	Odorless
pH in 10% solution (25°C):	3.8 - 4.0
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	The product is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate
Flammability:	MNon flammable
Lower explosion limit:	Not applicable
Upper explosion limit:	>>
Vapor pressure:	Not applicable

Density:	>>
Solubility:	100% soluble in water (25°C)
Oxidizing properties:	Non oxidizing
Viscosity:	Not applicable

9.2. Other information

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There are is no information about the product

Swallowing: >>

Skin contact: >>

Comntact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/l

12 – Ecological information

12.1 Toxicity

Evaluation of the toxicity in aquatic environments: It is very likely that the product does not demonstrate acute toxic effect on aquatic organisms. These declarations derive from the hazardous properties of the single ingredients, as well as from their concentrations in the mixture.

Toxicity on fish: The product has not been tested.

Toxicity in daphnias and other aquatic invertebrates:. The product has not been tested

Toxicity on aquatic plants: The product has not been tested.

Microorganisms/ Effect on activated sludge: No inhibition of the degradative capacity of activated sludge is expected when introduced into biological treatment plants at sufficiently low concentrations. The product has not been tested.

Chronic toxicity on fish: The product has not been tested.

Chronic toxicity on aquatic invertebrates: The product has not been tested.

Evaluation of earth toxicity: The product has not been tested.

12.2 Persistence and degradability

The product has been tested. No persistence is observed. It is degradable.

12.3 Bioaccumulation potential

The product has not been tested. No bioaccumulation is expected in organisms.

12.4 Results of PBT and vPvB assessment

The product does not meet the criteria in order to be classified as PBTs (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), since the single ingredients do not meet the criteria.

12.5 Other negative effects

The product does not contain substances which are referred in the regulation (EU) 1005/2009 as relevant to the substances which destroy the ozone layer.

13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

14 – Transform information

	14.1. UN Number	14.2. Familiar expedition name according UN	14.3. Danger order/orders during transportation	14.4. Packaging group	14.5. Environmental hazards
Land transport ADR /RID	-	-	-	-	-
Sea transport ADN	-	-	-	-	-
Sea transport IMDG	-	-	-	-	-
Air transport IATA/ICAO	-	-	-	-	-

14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

15.1 Regulations/ legislation concerning safety, health and environment about the substance or the mixture

There is no information available.

15.2 Chemical safety evaluation

There has not been conducted a chemical safety evaluation by the supplier according to Regulation No 1907/2006/EU (REACH).

16 – Other information

The Safety data sheet should be used in combination with the technical documentation of the product. The Safety data sheet is prepared based on information collected up to the day that the Safety Data Sheet is written. It is a guide for the safe use, distribution, storage and transport of the product and it does not intend to provide any warning or detailed description. This information is relevant only for the product. If the product is combined with other material or in procedures other than the ones described this safety data sheet

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may not be applicable. The Safety data sheet meets the risk criteria of the Regulations of the Tested Products according to the directives of the European Union.

SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 8-16-32 + 2MgO +TE

Catalogue No: PR.183.260

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLOU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Severe eye damage (Category 1), H318

2.2 Labeling:

According to EU Regulation No.1272/2008 [CLP]:



Pictogram : GHS05

Warning word: DANGER

Hazard declarations:

H318: It causes severe eye damage.

Protection statement – Prevention:

P280: Wear protective gloves / protective clothes / protection for the eyes and face.

Protection

P305 + P351 + P338 : In case of contact with eyes: Wash thoroughly with water. If there are contact lens, remove them, as long as it is easy. Keep washing out.

P310: Call immediately the Poison Centre or a doctor.

Other information:

«It contains:**Potassium sulfate**».

«The product contains Potassium Nitrate in a concentration 30.5% w/w. The product is not oxidizing given the fact that the product FAST GROW PLUS 12-12-36 which has a similar chemical composition and concentration of Potassium Nitrate 49,5% w/w was tested regarding its oxidizing behavior (TEST UN Division 5.1: Test O.1 – Test for Oxidizing Solids) and was characterized as non-oxidizing»

2.3. Other hazards

According to the regulation EC No.1272/2008 [CLP]:

Not known

3 - Composition / Information about the components

3.1. Substance

Not applicable

3.2. Mixture

4 – First Aid

4.1 First aids

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known.

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

5.3 Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: This product is not combustible. During fire extinction take into consideration the local circumstances and the surrounding environment. Contaminated fire-extinguishing water must be discarded according to the official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form:	Water soluble powder
Color:	Blue
Odor:	Odorless
pH in solution 10% (25°C):	3.8 - 4.0
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	The product is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate
Flammability:	Non flammable
Lower explosion limit:	Not applicable

Upper explosion limit:	>>
Vapor pressure:	Not applicable
Density:	>>
Solubility:	100% soluble in water (25°C)
Oxidizing properties:	Non oxidizing
Viscosity:	Not applicable

9.2. Other information

10 – Stability and reactivity

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/l

12 – Ecological information

12.1 Toxicity

Evaluation of the toxicity in aquatic environments: It is very likely that the product does not demonstrate acute toxic effect on aquatic organisms. These declarations derive from the hazardous properties of the single ingredients, as well as from their concentrations in the mixture.

Toxicity on fish: The product has not been tested.

Toxicity in daphnias and other aquatic invertebrates:. The product has not been tested

Toxicity on aquatic plants: The product has not been tested.

Microorganisms/ Effect on activated sludge: No inhibition of the degradative capacity of activated sludge is expected when introduced into biological treatment plants at sufficiently low concentrations. The product has not been tested.

Chronic toxicity on fish: The product has not been tested.

Chronic toxicity on aquatic invertebrates: The product has not been tested.

Evaluation of earth toxicity: The product has not been tested.

12.2 Persistence and degradability

The product has been tested. No persistence is observed. It is degradable.

12.3 Bioaccumulation potential

The product has not been tested. No bioaccumulation is expected in organisms.

12.4 Results of PBT and vPvB assessment

The product does not meet the criteria in order to be classified as PBTs (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), since the single ingredients do not meet the criteria.

12.5 Other negative effects

The product does not contain substances which are referred in the regulation (EU) 1005/2009 as relevant to the substances which destroy the ozone layer.

13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

14 – Transform information

	14.1. UN Number	14.2. Familiar expedition name according UN	14.3. Danger order/orders during transportation	14.4. Packaging group	14.5. Environmental hazards
Land transport ADR /RID	-	-	-	-	-
Sea transport ADN	-	-	-	-	-
Sea transport IMDG	-	-	-	-	-
Air transport IATA/ICAO	-	-	-	-	-

14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

15.1 Regulations/ legislation concerning safety, health and environment about the substance or the mixture

There is no information available.

15.2 Chemical safety evaluation

There has not been conducted a chemical safety evaluation by the supplier according to Regulation No 1907/2006/EU (REACH).

16 – Other information

The Safety data sheet should be used in combination with the technical documentation of the product. The Safety data sheet is prepared based on information collected up to the

Issue date: 23/8/2022

Edition: 1st

day that the Safety Data Sheet is written. It is a guide for the safe use, distribution, storage and transport of the product and it does not intend to provide any warning or detailed description. This information is relevant only for the product. If the product is combined with other material or in procedures other than the ones described this safety data sheet may not be applicable. The Safety data sheet meets the risk criteria of the Regulations of the Tested Products according to the directives of the European Union.

SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 12-8-24 + 4MgO +TE

Catalogue No: PR.183.259

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLOU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Severe eye damage (Category 1), H318

2.2 Labeling:

According to EU Regulation No.1272/2008 [CLP]:



Pictogram : GHS05

Warning word: DANGER

Hazard declarations:

H318: It causes severe eye damage.

Protection statement – Prevention:

P280: Wear protective gloves / protective clothes / protection for the eyes and face.

Protection

P305 + P351 + P338 : In case of contact with eyes: Wash thoroughly with water. If there are contact lens, remove them, as long as it is easy. Keep washing out.

P310: Call immediately the Poison Centre or a doctor.

Other information:

«It contains:**Potassium sulfate**».

«The product contains Potassium Nitrate in a concentration 30.5% w/w. The product is not oxidizing given the fact that the product FAST GROW PLUS 12-12-36 which has a similar chemical composition and concentration of Potassium Nitrate 49,5% w/w was tested regarding its oxidizing behavior (TEST UN Division 5.1: Test O.1 – Test for Oxidizing Solids) and was characterized as non-oxidizing»

2.3. Other hazards

According to the regulation EC No.1272/2008 [CLP]:

Not known

3 - Composition / Information about the components

3.1. Substance

Not applicable

3.2. Mixture

4 – First Aid

4.1 First aids

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known.

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

5.3 Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: This product is not combustible. During fire extinction take into consideration the local circumstances and the surrounding environment. Contaminated fire-extinguishing water must be discarded according to the official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form:	Water soluble powder
Color:	Blue
Odor:	Odorless
pH in solution 10% (25°C):	3.8 - 4.0
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	The product is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate
Flammability:	Non flammable
Lower explosion limit:	Not applicable

Upper explosion limit:	>>
Vapor pressure:	Not applicable
Density:	>>
Solubility:	100% soluble in water (25°C)
Oxidizing properties:	Non oxidizing
Viscosity:	Not applicable

9.2. Other information

10 – Stability and reactivity

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/l

12 – Ecological information

12.1 Toxicity

Evaluation of the toxicity in aquatic environments: It is very likely that the product does not demonstrate acute toxic effect on aquatic organisms. These declarations derive from the hazardous properties of the single ingredients, as well as from their concentrations in the mixture.

Toxicity on fish: The product has not been tested.

Toxicity in daphnias and other aquatic invertebrates: The product has not been tested

Toxicity on aquatic plants: The product has not been tested.

Microorganisms/ Effect on activated sludge: No inhibition of the degradative capacity of activated sludge is expected when introduced into biological treatment plants at sufficiently low concentrations. The product has not been tested.

Chronic toxicity on fish: The product has not been tested.

Chronic toxicity on aquatic invertebrates: The product has not been tested.

Evaluation of earth toxicity: The product has not been tested.

12.2 Persistence and degradability

The product has been tested. No persistence is observed. It is degradable.

12.3 Bioaccumulation potential

The product has not been tested. No bioaccumulation is expected in organisms.

12.4 Results of PBT and vPvB assessment

The product does not meet the criteria in order to be classified as PBTs (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), since the single ingredients do not meet the criteria.

12.5 Other negative effects

The product does not contain substances which are referred in the regulation (EU) 1005/2009 as relevant to the substances which destroy the ozone layer.

13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

14 – Transform information

	14.1. UN Number	14.2. Familiar expedition name according UN	14.3. Danger order/orders during transportation	14.4. Packaging group	14.5. Environmental hazards
Land transport ADR /RID	-	-	-	-	-
Sea transport ADN	-	-	-	-	-
Sea transport IMDG	-	-	-	-	-
Air transport IATA/ICAO	-	-	-	-	-

14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

15.1 Regulations/ legislation concerning safety, health and environment about the substance or the mixture

There is no information available.

15.2 Chemical safety evaluation

There has not been conducted a chemical safety evaluation by the supplier according to Regulation No 1907/2006/EU (REACH).

16 – Other information

The Safety data sheet should be used in combination with the technical documentation of the product. The Safety data sheet is prepared based on information collected up to the

Issue date: 23/8/2022

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SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 12-48-8 + TE

Product identifier: PR. 183.254

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to *EU Regulation No.1272/2008 [CLP]*:

The product is not classified

2.2 Labeling

According to *EU Regulation No.1272/2008 [CLP]*:

The product does not require labeling

Other information:

«The product contains Potassium Nitrate 18,0% w/w. The product is not oxidizing given that the product FAST GROW PLUS 12-12-36 which has a similar chemical composition and concentration of Potassium Nitrate 49,5% w/w was tested regarding its oxidizing behavior (TEST UN Division 5.1: Test O.1 – Test for Oxidizing Solids) and was characterized as non-oxidizing»

2.3. Other hazards

According to the regulation EC No.1272/2008 [CLP]:

Not known

3 - Composition / Information about the components

3.1. Substance

Not applicable

3.2. Mixture

4 – First Aid

4.1 First aids

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known.

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

5.3 Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: This product is not combustible. During fire extinction take into consideration the local circumstances and the surrounding environment. Contaminated fire-extinguishing water must be discarded according to the official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form:	Water soluble powder
Color:	Blue
Odor:	Odorless
pH in 10% solution (25°C):	3.0 - 4.0
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	The product is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate
Flammability:	Non flammable
Lower explosion limit:	Not applicable
Upper explosion limit:	>>
Vapor pressure:	Not applicable
Density:	>>
Solubility:	The product is 100% soluble in water (25°C)
Oxidizing properties:	Non oxidizing
Viscosity:	Not applicable

9.2. Other information

10 – Σταθερότητα και Αντιδραστικότητα

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/l

12 – Ecological information

12.1 Toxicity

Evaluation of the toxicity in aquatic environments: It is very likely that the product does not demonstrate acute toxic effect on aquatic organisms. These declarations derive from the hazardous properties of the single ingredients, as well as from their concentrations in the mixture.

Toxicity on fish: The product has not been tested.

Toxicity in daphnias and other aquatic invertebrates:. The product has not been tested

Toxicity on aquatic plants: The product has not been tested.

Microorganisms/ Effect on activated sludge: No inhibition of the degradative capacity of activated sludge is expected when introduced into biological treatment plants at sufficiently low concentrations. The product has not been tested.

Chronic toxicity on fish: The product has not been tested.

Chronic toxicity on aquatic invertebrates: The product has not been tested.

Evaluation of earth toxicity: The product has not been tested.

12.2 Persistence and degradability

The product has been tested. No persistence is observed. It is degradable.

12.3 Bioaccumulation potential

The product has not been tested. No bioaccumulation is expected in organisms.

12.4 Results of PBT and vPvB assessment

The product does not meet the criteria in order to be classified as PBTs (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), since the single ingredients do not meet the criteria.

12.5 Other negative effects

The product does not contain substances which are referred in the regulation (EU) 1005/2009 as relevant to the substances which destroy the ozone layer.

13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

14 – Transform information

	14.1. UN Number	14.2. Familiar expedition name according UN	14.3. Danger order/orders during transportation	14.4. Packaging group	14.5. Environmental hazards
Land transport ADR /RID	-	-	-	-	-

Sea transport ADN	-	-	-	-	-
Sea transport IMDG	-	-	-	-	-
Air transport IATA/ICAO	-	-	-	-	-

14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

15.1 Regulations/ legislation concerning safety, health and environment about the substance or the mixture

There is no information available.

15.2 Chemical safety evaluation

There has not been conducted a chemical safety evaluation by the supplier according to Regulation No 1907/2006/EU (REACH).

16 – Other information

The Safety data sheet should be used in combination with the technical documentation of the product. The Safety data sheet is prepared based on information collected up to the day that the Safety Data Sheet is written. It is a guide for the safe use, distribution, storage and transport of the product and it does not intend to provide any warning or detailed description. This information is relevant only for the product. If the product is combined with other material or in procedures other than the ones described this safety data sheet may not be applicable. The Safety data sheet meets the risk criteria of the Regulations of the Tested Products according to the directives of the European Union.

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SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 15-5-35 + TE

Catalogue No: PR. 183.257

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLOU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Severe eye damage (Category 1), H318

2.2 Labeling:

According to EU Regulation No.1272/2008 [CLP]:



Pictogram : GHS05

Warning word: DANGER

Hazard declarations:

H318: It causes severe eye damage.

Protection statement – Prevention:

P280: Wear protective gloves / protective clothes / protection for the eyes and face.

Protection

P305 + P351 + P338 : In case of contact with eyes: Wash thoroughly with water. If there are contact lens, remove them, as long as it is easy. Keep washing out.

P310: Call immediately the Poison Centre or a doctor.

Other information :

«It contains: **Potassium sulfate**».

«The product contains Potassium Nitrate at a concentration 21.5% w/w. The product is not oxidizing **given that the product FAST GROW PLUS 12-12-36** which has a similar chemical composition and concentration of Potassium Nitrate 49,5% w/w was tested regarding its oxidizing behavior (TEST UN Division 5.1: Test O.1 – Test for Oxidizing Solids) and was characterized as non-oxidizing»

2.3. Other hazards

According to the regulation EC No.1272/2008 [CLP]:

Not known

3 - Composition / Information about the components

3.1. Substance

Not applicable

3.2. Mixture

4 – First Aid

4.1 First aids

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known.

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

5.3 Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: This product is not combustible. During fire extinction take into consideration the local circumstances and the surrounding environment. Contaminated fire-extinguishing water must be discarded according to the official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored

separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form:	Water soluble powder
Color:	Blue
Odor:	Odorless
pH in 10% solution (25°C):	3.8 - 4.0
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	The product is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate
Flammability:	MNon flammable
Lower explosion limit:	Not applicable
Upper explosion limit:	>>
Vapor pressure:	Not applicable

Density:	>>
Solubility:	100% soluble in water (25°C)
Oxidizing properties:	Non oxidizing
Viscosity:	Not applicable

9.2. Other information

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/l

12 – Ecological information

12.1 Toxicity

Evaluation of the toxicity in aquatic environments: It is very likely that the product does not demonstrate acute toxic effect on aquatic organisms. These declarations derive from the hazardous properties of the single ingredients, as well as from their concentrations in the mixture.

Toxicity on fish: The product has not been tested.

Toxicity in daphnias and other aquatic invertebrates:. The product has not been tested

Toxicity on aquatic plants: The product has not been tested.

Microorganisms/ Effect on activated sludge: No inhibition of the degradative capacity of activated sludge is expected when introduced into biological treatment plants at sufficiently low concentrations. The product has not been tested.

Chronic toxicity on fish: The product has not been tested.

Chronic toxicity on aquatic invertebrates: The product has not been tested.

Evaluation of earth toxicity: The product has not been tested.

12.2 Persistence and degradability

The product has been tested. No persistence is observed. It is degradable.

12.3 Bioaccumulation potential

The product has not been tested. No bioaccumulation is expected in organisms.

12.4 Results of PBT and vPvB assessment

The product does not meet the criteria in order to be classified as PBTs (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), since the single ingredients do not meet the criteria.

12.5 Other negative effects

The product does not contain substances which are referred in the regulation (EU) 1005/2009 as relevant to the substances which destroy the ozone layer.

13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

14 – Transform information

	14.1. UN Number	14.2. Familiar expedition name according UN	14.3. Danger order/orders during transportation	14.4. Packaging group	14.5. Environmental hazards
Land transport ADR /RID	-	-	-	-	-
Sea transport ADN	-	-	-	-	-
Sea transport IMDG	-	-	-	-	-
Air transport IATA/ICAO	-	-	-	-	-

14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

15.1 Regulations/ legislation concerning safety, health and environment about the substance or the mixture

There is no information available.

15.2 Chemical safety evaluation

There has not been conducted a chemical safety evaluation by the supplier according to Regulation No 1907/2006/EU (REACH).

16 – Other information

The Safety data sheet should be used in combination with the technical documentation of the product. The Safety data sheet is prepared based on information collected up to the day that the Safety Data Sheet is written. It is a guide for the safe use, distribution, storage and transport of the product and it does not intend to provide any warning or detailed description. This information is relevant only for the product. If the product is combined with other material or in procedures other than the ones described this safety data sheet

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Edition: 1st

may not be applicable. The Safety data sheet meets the risk criteria of the Regulations of the Tested Products according to the directives of the European Union.

SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 15-30-15 + TE

Catalogue No: PR. 183.253

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLOU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Severe eye damage (Category 1), H318

2.2 Labeling:

According to EU Regulation No.1272/2008 [CLP]:



Pictogram : GHS05

Warning word: DANGER

Hazard declarations:

H318: It causes severe eye damage.

Protection statement – Prevention:

P280: Wear protective gloves / protective clothes / protection for the eyes and face.

Protection

P305 + P351 + P338 : In case of contact with eyes: Wash thoroughly with water. If there are contact lens, remove them, as long as it is easy. Keep washing out.

P310: Call immediately the Poison Centre or a doctor.

Other information :

«It contains: **Potassium sulfate**».

«The product contains Potassium Nitrate at a concentration 21.5% w/w. The product is not oxidizing **given that the product FAST GROW PLUS 12-12-36** which has a similar chemical composition and concentration of Potassium Nitrate 49,5% w/w was tested regarding its oxidizing behavior (TEST UN Division 5.1: Test O.1 – Test for Oxidizing Solids) and was characterized as non-oxidizing»

2.3. Other hazards

According to the regulation EC No.1272/2008 [CLP]:

Not known

3 - Composition / Information about the components

3.1. Substance

Not applicable

3.2. Mixture

4 – First Aid

4.1 First aids

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known.

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

5.3 Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: This product is not combustible. During fire extinction take into consideration the local circumstances and the surrounding environment. Contaminated fire-extinguishing water must be discarded according to the official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored

separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form:	Water soluble powder
Color:	Blue
Odor:	Odorless
pH in 10% solution (25°C):	3.8 - 4.0
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	The product is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate
Flammability:	MNon flammable
Lower explosion limit:	Not applicable
Upper explosion limit:	>>
Vapor pressure:	Not applicable

Density:	>>
Solubility:	100% soluble in water (25°C)
Oxidizing properties:	Non oxidizing
Viscosity:	Not applicable

9.2. Other information

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/lt

12 – Ecological information

12.1 Toxicity

Evaluation of the toxicity in aquatic environments: It is very likely that the product does not demonstrate acute toxic effect on aquatic organisms. These declarations derive from the hazardous properties of the single ingredients, as well as from their concentrations in the mixture.

Toxicity on fish: The product has not been tested.

Toxicity in daphnias and other aquatic invertebrates:. The product has not been tested

Toxicity on aquatic plants: The product has not been tested.

Microorganisms/ Effect on activated sludge: No inhibition of the degradative capacity of activated sludge is expected when introduced into biological treatment plants at sufficiently low concentrations. The product has not been tested.

Chronic toxicity on fish: The product has not been tested.

Chronic toxicity on aquatic invertebrates: The product has not been tested.

Evaluation of earth toxicity: The product has not been tested.

12.2 Persistence and degradability

The product has been tested. No persistence is observed. It is degradable.

12.3 Bioaccumulation potential

The product has not been tested. No bioaccumulation is expected in organisms.

12.4 Results of PBT and vPvB assessment

The product does not meet the criteria in order to be classified as PBTs (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), since the single ingredients do not meet the criteria.

12.5 Other negative effects

The product does not contain substances which are referred in the regulation (EU) 1005/2009 as relevant to the substances which destroy the ozone layer.

13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

14 – Transform information

	14.1. UN Number	14.2. Familiar expedition name according UN	14.3. Danger order/orders during transportation	14.4. Packaging group	14.5. Environmental hazards
Land transport ADR /RID	-	-	-	-	-
Sea transport ADN	-	-	-	-	-
Sea transport IMDG	-	-	-	-	-
Air transport IATA/ICAO	-	-	-	-	-

14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

15.1 Regulations/ legislation concerning safety, health and environment about the substance or the mixture

There is no information available.

15.2 Chemical safety evaluation

There has not been conducted a chemical safety evaluation by the supplier according to Regulation No 1907/2006/EU (REACH).

16 – Other information

The Safety data sheet should be used in combination with the technical documentation of the product. The Safety data sheet is prepared based on information collected up to the day that the Safety Data Sheet is written. It is a guide for the safe use, distribution, storage and transport of the product and it does not intend to provide any warning or detailed description. This information is relevant only for the product. If the product is combined with other material or in procedures other than the ones described this safety data sheet

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SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 18-9-27 + TE

Catalogue No: PR. 183.256

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLOU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Severe eye damage (Category 1), H318

2.2 Labeling:

According to EU Regulation No.1272/2008 [CLP]:



Pictogram : GHS05

Warning word: DANGER

Hazard declarations:

H318: It causes severe eye damage.

Protection statement – Prevention:

P280: Wear protective gloves / protective clothes / protection for the eyes and face.

Protection

P305 + P351 + P338 : In case of contact with eyes: Wash thoroughly with water. If there are contact lens, remove them, as long as it is easy. Keep washing out.

P310: Call immediately the Poison Centre or a doctor.

Other information :

«It contains: **Potassium sulfate**».

«The product contains Potassium Nitrate at a concentration 21.5% w/w. The product is not oxidizing **given that the product** FAST GROW PLUS 12-12-36 which has a similar chemical composition and concentration of Potassium Nitrate 49,5% w/w was tested regarding its oxidizing behavior (TEST UN Division 5.1: Test O.1 – Test for Oxidizing Solids) and was characterized as non-oxidizing»

2.3. Other hazards

According to the regulation EC No.1272/2008 [CLP]:

Not known

3 - Composition / Information about the components

3.1. Substance

Not applicable

3.2. Mixture

4 – First Aid

4.1 First aids

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known.

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

5.3 Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: This product is not combustible. During fire extinction take into consideration the local circumstances and the surrounding environment. Contaminated fire-extinguishing water must be discarded according to the official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored

separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form:	Water soluble powder
Color:	Blue
Odor:	Odorless
pH in 10% solution (25°C):	3.8 - 4.0
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	The product is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate
Flammability:	MNon flammable
Lower explosion limit:	Not applicable
Upper explosion limit:	>>
Vapor pressure:	Not applicable

Density:	>>
Solubility:	100% soluble in water (25°C)
Oxidizing properties:	Non oxidizing
Viscosity:	Not applicable

9.2. Other information

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/l

12 – Ecological information

12.1 Toxicity

Evaluation of the toxicity in aquatic environments: It is very likely that the product does not demonstrate acute toxic effect on aquatic organisms. These declarations derive from the hazardous properties of the single ingredients, as well as from their concentrations in the mixture.

Toxicity on fish: The product has not been tested.

Toxicity in daphnias and other aquatic invertebrates:. The product has not been tested

Toxicity on aquatic plants: The product has not been tested.

Microorganisms/ Effect on activated sludge: No inhibition of the degradative capacity of activated sludge is expected when introduced into biological treatment plants at sufficiently low concentrations. The product has not been tested.

Chronic toxicity on fish: The product has not been tested.

Chronic toxicity on aquatic invertebrates: The product has not been tested.

Evaluation of earth toxicity: The product has not been tested.

12.2 Persistence and degradability

The product has been tested. No persistence is observed. It is degradable.

12.3 Bioaccumulation potential

The product has not been tested. No bioaccumulation is expected in organisms.

12.4 Results of PBT and vPvB assessment

The product does not meet the criteria in order to be classified as PBTs (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), since the single ingredients do not meet the criteria.

12.5 Other negative effects

The product does not contain substances which are referred in the regulation (EU) 1005/2009 as relevant to the substances which destroy the ozone layer.

13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

14 – Transform information

	14.1. UN Number	14.2. Familiar expedition name according UN	14.3. Danger order/orders during transportation	14.4. Packaging group	14.5. Environmental hazards
Land transport ADR /RID	-	-	-	-	-
Sea transport ADN	-	-	-	-	-
Sea transport IMDG	-	-	-	-	-
Air transport IATA/ICAO	-	-	-	-	-

14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

15.1 Regulations/ legislation concerning safety, health and environment about the substance or the mixture

There is no information available.

15.2 Chemical safety evaluation

There has not been conducted a chemical safety evaluation by the supplier according to Regulation No 1907/2006/EU (REACH).

16 – Other information

The Safety data sheet should be used in combination with the technical documentation of the product. The Safety data sheet is prepared based on information collected up to the day that the Safety Data Sheet is written. It is a guide for the safe use, distribution, storage and transport of the product and it does not intend to provide any warning or detailed description. This information is relevant only for the product. If the product is combined with other material or in procedures other than the ones described this safety data sheet

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may not be applicable. The Safety data sheet meets the risk criteria of the Regulations of the Tested Products according to the directives of the European Union.

SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name : GENIUS 18-18-18 + TE

Catalogue No: PR. 183.251

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLOU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Severe eye damage (Category 1), H318

2.2 Labeling:

According to EU Regulation No.1272/2008 [CLP]:



Pictogram : GHS05

Warning word: DANGER

Hazard declarations:

H318: It causes severe eye damage.

Protection statement – Prevention:

P280: Wear protective gloves / protective clothes / protection for the eyes and face.

Protection

P305 + P351 + P338 : In case of contact with eyes: Wash thoroughly with water. If there are contact lens, remove them, as long as it is easy. Keep washing out.

P310: Call immediately the Poison Centre or a doctor.

Other information :

«It contains: **Potassium sulfate**».

«The product contains Potassium Nitrate at a concentration 30.0% w/w. The product is not oxidizing **given that the product** FAST GROW PLUS 12-12-36 which has a similar chemical composition and concentration of Potassium Nitrate 49,5% w/w was tested regarding its oxidizing behavior (TEST UN Division 5.1: Test O.1 – Test for Oxidizing Solids) and was characterized as non-oxidizing»

2.3. Other hazards

According to the regulation EC No.1272/2008 [CLP]:

Not known

3 - Composition / Information about the components

3.1. Substance

Not applicable

3.2. Mixture

4 – First Aid

4.1 First aids

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known.

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

5.3 Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: This product is not combustible. During fire extinction take into consideration the local circumstances and the surrounding environment. Contaminated fire-extinguishing water must be discarded according to the official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored

separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form:	Water soluble powder
Color:	Blue
Odor:	Odorless
pH in 10% solution (25°C):	3.8 - 4.0
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	The product is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate
Flammability:	Non flammable
Lower explosion limit:	Not applicable
Upper explosion limit:	>>

Vapor pressure:	Not applicable
Density:	>>
ΔSolubility:	100% soluble in water (25°C)
Oxidizing properties:	Non oxidizing
Viscosity:	Not applicable

9.2. Other information

10 – Σταθερότητα και Αντιδραστικότητα

10 – Stability and reactivity

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There are is no information about the product

Swallowing: >>

Skin contact: >>

Comntact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/lt

12 – Ecological information

12.1 Toxicity

Evaluation of the toxicity in aquatic environments: It is very likely that the product does not demonstrate acute toxic effect on aquatic organisms. These declarations derive from the hazardous properties of the single ingredients, as well as from their concentrations in the mixture.

Toxicity on fish: The product has not been tested.

Toxicity in daphnias and other aquatic invertebrates: The product has not been tested

Toxicity on aquatic plants: The product has not been tested.

Microorganisms/ Effect on activated sludge: No inhibition of the degradative capacity of activated sludge is expected when introduced into biological treatment plants at sufficiently low concentrations. The product has not been tested.

Chronic toxicity on fish: The product has not been tested.

Chronic toxicity on aquatic invertebrates: The product has not been tested.

Evaluation of earth toxicity: The product has not been tested.

12.2 Persistence and degradability

The product has been tested. No persistence is observed. It is degradable.

12.3 Bioaccumulation potential

The product has not been tested. No bioaccumulation is expected in organisms.

12.4 Results of PBT and vPvB assessment

The product does not meet the criteria in order to be classified as PBTs (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), since the single ingredients do not meet the criteria.

12.5 Other negative effects

The product does not contain substances which are referred in the regulation (EU) 1005/2009 as relevant to the substances which destroy the ozone layer.

13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

14 – Transform information

	14.1. UN Number	14.2. Familiar expedition name according UN	14.3. Danger order/orders during transportation	14.4. Packaging group	14.5. Environmental hazards
Land transport ADR /RID	-	-	-	-	-
Sea transport ADN	-	-	-	-	-
Sea transport IMDG	-	-	-	-	-
Air transport IATA/ICAO	-	-	-	-	-

14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

15.1 Regulations/ legislation concerning safety, health and environment about the substance or the mixture

There is no information available.

15.2 Chemical safety evaluation

There has not been conducted a chemical safety evaluation by the supplier according to Regulation No 1907/2006/EU (REACH).

16 – Other information

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Edition: 1st

The Safety data sheet should be used in combination with the technical documentation of the product. The Safety data sheet is prepared based on information collected up to the day that the Safety Data Sheet is written. It is a guide for the safe use, distribution, storage and transport of the product and it does not intend to provide any warning or detailed description. This information is relevant only for the product. If the product is combined with other material or in procedures other than the ones described this safety data sheet may not be applicable. The Safety data sheet meets the risk criteria of the Regulations of the Tested Products according to the directives of the European Union.

SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 20-5-30 + TE

Catalogue No: PR. 183.255

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLOU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Severe eye damage (Category 1), H318

2.2 Labeling:

According to EU Regulation No.1272/2008 [CLP]:



Pictogram : GHS05

Warning word: DANGER

Hazard declarations:

H318: It causes severe eye damage.

Protection statement – Prevention:

P280: Wear protective gloves / protective clothes / protection for the eyes and face.

Protection

P305 + P351 + P338 : In case of contact with eyes: Wash thoroughly with water. If there are contact lens, remove them, as long as it is easy. Keep washing out.

P310: Call immediately the Poison Centre or a doctor.

Other information :

«It contains: **Potassium sulfate**».

«The product contains Potassium Nitrate at a concentration 21.5% w/w. The product is not oxidizing **given that the product** FAST GROW PLUS 12-12-36 which has a similar chemical composition and concentration of Potassium Nitrate 49,5% w/w was tested regarding its oxidizing behavior (TEST UN Division 5.1: Test O.1 – Test for Oxidizing Solids) and was characterized as non-oxidizing»

2.3. Other hazards

According to the regulation EC No.1272/2008 [CLP]:

Not known

3 - Composition / Information about the components

3.1. Substance

Not applicable

3.2. Mixture

4 – First Aid

4.1 First aids

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known.

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

5.3 Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: This product is not combustible. During fire extinction take into consideration the local circumstances and the surrounding environment. Contaminated fire-extinguishing water must be discarded according to the official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored

separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form:	Water soluble powder
Color:	Blue
Odor:	Odorless
pH in 10% solution (25°C):	3.8 - 4.0
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	The product is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate
Flammability:	MNon flammable
Lower explosion limit:	Not applicable
Upper explosion limit:	>>
Vapor pressure:	Not applicable

Density:	>>
Solubility:	100% soluble in water (25°C)
Oxidizing properties:	Non oxidizing
Viscosity:	Not applicable

9.2. Other information

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/l

12 – Ecological information

12.1 Toxicity

Evaluation of the toxicity in aquatic environments: It is very likely that the product does not demonstrate acute toxic effect on aquatic organisms. These declarations derive from the hazardous properties of the single ingredients, as well as from their concentrations in the mixture.

Toxicity on fish: The product has not been tested.

Toxicity in daphnias and other aquatic invertebrates:. The product has not been tested

Toxicity on aquatic plants: The product has not been tested.

Microorganisms/ Effect on activated sludge: No inhibition of the degradative capacity of activated sludge is expected when introduced into biological treatment plants at sufficiently low concentrations. The product has not been tested.

Chronic toxicity on fish: The product has not been tested.

Chronic toxicity on aquatic invertebrates: The product has not been tested.

Evaluation of earth toxicity: The product has not been tested.

12.2 Persistence and degradability

The product has been tested. No persistence is observed. It is degradable.

12.3 Bioaccumulation potential

The product has not been tested. No bioaccumulation is expected in organisms.

12.4 Results of PBT and vPvB assessment

The product does not meet the criteria in order to be classified as PBTs (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), since the single ingredients do not meet the criteria.

12.5 Other negative effects

The product does not contain substances which are referred in the regulation (EU) 1005/2009 as relevant to the substances which destroy the ozone layer.

13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

14 – Transform information

	14.1. UN Number	14.2. Familiar expedition name according UN	14.3. Danger order/orders during transportation	14.4. Packaging group	14.5. Environmental hazards
Land transport ADR /RID	-	-	-	-	-
Sea transport ADN	-	-	-	-	-
Sea transport IMDG	-	-	-	-	-
Air transport IATA/ICAO	-	-	-	-	-

14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

15.1 Regulations/ legislation concerning safety, health and environment about the substance or the mixture

There is no information available.

15.2 Chemical safety evaluation

There has not been conducted a chemical safety evaluation by the supplier according to Regulation No 1907/2006/EU (REACH).

16 – Other information

The Safety data sheet should be used in combination with the technical documentation of the product. The Safety data sheet is prepared based on information collected up to the day that the Safety Data Sheet is written. It is a guide for the safe use, distribution, storage and transport of the product and it does not intend to provide any warning or detailed description. This information is relevant only for the product. If the product is combined with other material or in procedures other than the ones described this safety data sheet

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may not be applicable. The Safety data sheet meets the risk criteria of the Regulations of the Tested Products according to the directives of the European Union.

SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 20-20-20 + TE

Catalogue No: PR.183.250

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Severe eye damage (Category 1), H318

2.2 Labeling:

According to EU Regulation No.1272/2008 [CLP]:



Pictogram : GHS05

Warning word: DANGER

Hazard declarations:

H318: It causes severe eye damage.

Protection statement – Prevention:

P280: Wear protective gloves / protective clothes / protection for the eyes and face.

Protection

P305 + P351 + P338 : In case of contact with eyes: Wash thoroughly with water. If there are contact lens, remove them, as long as it is easy. Keep washing out.

P310: Call immediately the Poison Centre or a doctor.

Other information :

«It contains: **Potassium sulfate**».

«The product contains Potassium Nitrate at a concentration 30.0% w/w. The product is not oxidizing given that the product FAST GROW PLUS 12-12-36 which has a similar chemical composition and concentration of Potassium Nitrate 49,5% w/w was tested regarding its oxidizing behavior (TEST UN Division 5.1: Test O.1 – Test for Oxidizing Solids) and was characterized as non-oxidizing»

2.3. Other hazards

According to the regulation EC No.1272/2008 [CLP]:

Not known

3 - Composition / Information about the components

3.1. Substance

Not applicable

3.2. Mixture

4 – First Aid

4.1 First aids

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known.

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

5.3 Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: This product is not combustible. During fire extinction take into consideration the local circumstances and the surrounding environment. Contaminated fire-extinguishing water must be discarded according to the official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form:	Water soluble powder
Color:	Blue
Odor:	Odorless
pH in 10% solution (25°C):	3.8 - 4.0
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	The product is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate.
Flammability:	Non flammable
Lower explosion limit:	Not applicable
Upper explosion limit:	>>
Vapor pressure:	Not applicable

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Density:	>>
Solubility:	100% soluble in water (25°C)
Οξειδωτικές Ιδιότητες :	Non oxidizing
Viscosity:	Not applicable

9.2. other information

10 – Stability and reactivity

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/lt

12 – Ecological information

12.1 Toxicity

Evaluation of the toxicity in aquatic environments: It is very likely that the product does not demonstrate acute toxic effect on aquatic organisms. These declarations derive from the hazardous properties of the single ingredients, as well as from their concentrations in the mixture.

Toxicity on fish: The product has not been tested.

Toxicity in daphnias and other aquatic invertebrates:. The product has not been tested

Toxicity on aquatic plants: The product has not been tested.

Microorganisms/ Effect on activated sludge: No inhibition of the degradative capacity of activated sludge is expected when introduced into biological treatment plants at sufficiently low concentrations. The product has not been tested.

Chronic toxicity on fish: The product has not been tested.

Chronic toxicity on aquatic invertebrates: The product has not been tested.

Evaluation of earth toxicity: The product has not been tested.

12.2 Persistence and degradability

The product has been tested. No persistence is observed. It is degradable.

12.3 Bioaccumulation potential

The product has not been tested. No bioaccumulation is expected in organisms.

12.4 Results of PBT and vPvB assessment

The product does not meet the criteria in order to be classified as PBTs (persistent, bioaccumulative and toxic) and vPvBs (very persistent and very bioaccumulative), since the single ingredients do not meet the criteria.

12.5 Other negative effects

The product does not contain substances which are referred in the regulation (EU) 1005/2009 as relevant to the substances which destroy the ozone layer.

13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

14 – Transform information

	14.1. UN Number	14.2. Familiar expedition name according UN	14.3. Danger order/orders during transportation	14.4. Packaging group	14.5. Environmental hazards
Land transport ADR /RID	-	-	-	-	-
Sea transport ADN	-	-	-	-	-
Sea transport IMDG	-	-	-	-	-
Air transport IATA/ICAO	-	-	-	-	-

14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

15.1 Regulations/ legislation concerning safety, health and environment about the substance or the mixture

There is no information available.

15.2 Chemical safety evaluation

There has not been conducted a chemical safety evaluation by the supplier according to Regulation No 1907/2006/EU (REACH).

16 – Other information

The Safety data sheet should be used in combination with the technical documentation of the product. The Safety data sheet is prepared based on information collected up to the day that the Safety Data Sheet is written. It is a guide for the safe use, distribution, storage and transport of the product and it does not intend to provide any warning or detailed

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description. This information is relevant only for the product. If the product is combined with other material or in procedures other than the ones described this safety data sheet may not be applicable. The Safety data sheet meets the risk criteria of the Regulations of the Tested Products according to the directives of the European Union.

SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 30-10-10 + TE

Catalogue No: PR.183.252

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLOU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Severe eye damage (Category 1), H318

2.2 Labeling:

According to EU Regulation No.1272/2008 [CLP]:



Pictogram : GHS05

Warning word: DANGER

Hazard declarations:

H318: It causes severe eye damage.

Protection statement – Prevention:

P280: Wear protective gloves / protective clothes / protection for the eyes and face.

Protection

P305 + P351 + P338 : In case of contact with eyes: Wash thoroughly with water. If there are contact lens, remove them, as long as it is easy. Keep washing out.

P310: Call immediately the Poison Centre or a doctor.

Other information :

«It contains: **Potassium sulfate**».

«The product contains Potassium Nitrate at a concentration 18.0% w/w. The product is not oxidizing given that the product FAST GROW PLUS 12-12-36 which has a similar chemical composition and concentration of Potassium Nitrate 49,5% w/w was tested regarding its oxidizing behavior (TEST UN Division 5.1: Test O.1 – Test for Oxidizing Solids) and was characterized as non-oxidizing»

2.3. Other hazards

According to the regulation EC No.1272/2008 [CLP]:

Not known

3 - Composition / Information about the components

3.1. Substance

Not applicable

3.2. Mixture

4 – First Aid

4.1 First aids

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, seek medical advice.

Swallowing: Drink a lot of water. Do not induce vomiting. If symptoms persist, seek medical advice. Immediately call a POISON CENTER or doctor/physician.

Skin contact: Wash with soap and plenty of water. Remove immediately all contaminated clothing. Seek medical advice if necessary.

Contact with eyes: Rinse with water for about 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If symptoms persist, seek medical advice.

4.2 Most significant symptoms and impacts, acute or subsequent

Symptoms: Not known.

4.3 Indication of any required immediate medical treatment and special cure

Treat symptomatically. No specific antidote is known.

5 – Firefighting measures

5.1 Extinguishing means

Suitable extinguishing means: Water (spray), dry powder, foam

5.2 Special hazards arising from the substance or mixture

In case of fire harmful gases may be produced, such as nitrogen oxides.

5.3 Recommendations to the firemen

In case of fire put on a suitable fire-extinguishing-protective equipment a self-contained breathing apparatus.

Additional information: This product is not combustible. During fire extinction take into consideration the local circumstances and the surrounding environment. Contaminated fire-extinguishing water must be discarded according to the official regulations.

6 – Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: It is recommended to use protective gloves (protection according to EN374). Use work uniform. Avoid contact with skin, eyes and mouth.

6.2 Environmental Precautions

Restrain spreading of contaminated water/fire-extinction water. Do not allow it to enter the sewage system and contaminate superficial and underground waters.

6.3 Methods and materials for restriction and cleaning

Methods for cleaning up: In case of leakage absorb with a suitable, inactive absorbent material. Sweep. Transfer the waste in suitable (labeled) containers for obliteration. Clean well the whole area with plenty of water.

6.4 Reference to other sections

More information in sections: 7 for handling, 8 for personal protection and 13 for disposal.

7 – Handling and Storage

7.1 Protections for safe handling

Recommendation for safe handling: Avoid contact with eyes and skin. Handle in accordance with good industrial hygiene and safety practice.

Recommendation for fire prevention and explosion protection: No special precautions are required for fire prevention.

7.2 Safe storage conditions, including possible non-compatibilities

Storage and packaging requirements: Store the product with its label on it, tightly closed. Store the product in a cool, dry and well-ventilated place. It must be stored

separately from food. It is not a hazardous product if transferred according to the proper rules of transport (P405), (P403+P233).

Storage recommendation: the product should be stored separately from food.

Other clues: it is not a hazardous product if transferred according to the proper rules of transport.

8 – Exposure Control

8.1 Control parameters

Components with occupational exposure limit values

Not known occupational exposure limit values. The general limit value for dust should be obeyed.

8.2 Exposure controls

Individual protection measures:

Eyes/face protection: Use appropriate protective glasses (EN166).

Hands protection: It is recommended to use appropriate protective gloves when using the product (The selected protective gloves must satisfy the specifications of EU Directive 89/689/EEC and the standard EN 374 deriving from it).

Respiratory system protection: Be sure to work in a well-ventilated area. In case inhalable dust is formed, you should use a dust protective filter mask (EN 143 or 149, type P1 or FFP1).

Personal hygiene measures: Avoid contact with eyes, skin and clothing. The use of self-contained work uniform is recommended. It is not allowed to drink or smoke or use smoke in the working area. Work clothes should be stored away from foods and drinks. Handle in accordance with good industrial hygiene and safety practice.

Environmental exposure controls: Prevent the material from entering the sewage system.

9 – Physical and chemical properties

9.1. Basic physical and chemical properties information

Form:	Water soluble powder
Color:	Blue
Odor:	Odorless
pH in 10% solution (25°C):	3,8 – 4,0
Boiling point:	Not applicable
Melting point:	>>
Flammability temperature:	The product is not flammable
Flash point:	>>
Vaporization rate:	The product does not evaporate
Flammability:	Not flammable
Lower explosion limit:	Not applicable
Upper explosion limit:	>>
Vapor pressure:	Not applicable

Density:	>>
Solubility:	100% water soluble (25°C)
Oxidizing properties:	Non oxidizing
Viscosity:	Not applicable

9.2. Other information

10 – Stability and reactivity

10.1 Reactivity

Stable product

10.2 Chemical Stability

Stable product under the recommended handling and storage conditions (section 7).

10.3 Hazardous reactions possibility

Reactive with some bases. Also with oxidizing substances and Magnesium.

10.4 Conditions to avoid

High temperature, avoid humidity.

10.5 Not compatible materials

Alkaline, oxidizing materials, Magnesium.

10.6 Hazardous decomposition products

In case of fire hazardous nitrogen oxides may be formed.

11 – Toxicological information

11.1 Information about toxicological effects

The product has not been tested. The information arises from the hazardous properties of the individual ingredients, considering cut-off values, generic or specific concentration limits, applying cumulative methods and using multiplying factors when required.

Acute toxicity

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Irritating effect

Inhalation: There is no information about the product

Swallowing: >>

Skin contact: >>

Contact with the eyes: >>

Chronic toxicity

Carcinogenicity: There is no information about the product

Mutagenicity: >>

Teratogenic potential: >>

Effects on growth: >>

Effect on fertility: >>

Other relevant information about toxicity

Potassium sulfate

LD₅₀ (Oral) rat: >2000mg/kg

LD₅₀ (Skin) mouse: >2000mg/kg

LC₅₀ (Inhalation) mouse :> 1200 mg/lt

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13 – Information regarding disposal

13.1 Waste handling methods

Product: Chemical waste material must be disposed according to the directive 2008/98/EC about wastes as well as to the relative national regulations.

Packages with remaining product: Packages must be disposed according to the special regulations of each country or must be returned to packages recycling entity (P501).

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14.6 Special precautions for the user

Not known.

14.7 Transportation of bulk material according to Appendix II of MARPOL contract 73/78 and of code IBC.

Not applicable.

15 – Regulatory information

This MSDS complies with the Regulation No 1907/2006/EU (REACH) & the Regulation (EU) No.1272/2008 [CLP].

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SAFETY DATA SHEET

Material Safety Data Sheet

Safety Data Sheet according to regulation No 1907/2006/EU, as it has been adjusted and is currently in vigor

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

1.1 Product identifier

Product name: GENIUS 12-12-36 + TE

Catalogue No: PR.183.258

Relevant identified uses of the substance or mixture and non-indicated uses

Identified uses

Use : Fertilizer

Details of the supplier of the safety data sheet

Company Identity - : DEMIRTZOGLU & ASSOCIATES SA -HUMOFERT S.A.

Address: 1 Ermou & Theotokopoulou str.,
ZIP. 144 52, Metamorphosis

Telephone: +30 210 284 5891

email : info@humofert.gr

1.4 Emergency call number:

Poison Center num: +30 210 7793777

2 – Hazard identification

2.1. Classification of the substance or mixture

According to EU Regulation No.1272/2008 [CLP]:

Solid oxidizing (Category 2), H272

Severe eye damage (Category 1), H318

2.2 Labeling

According to EU Regulation No.1272/2008 [CLP]:



Pictogram :

GHS05

GHS03