



MATERIAL SAFETY DATA SHEET (MSDS)

ECOBİGEN Agriculture Food Trade Industry Co. Ltd.

Version 1.0

Issued February 2022

"In accordance with the Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures published in the Official Journal numbered 29204 on December 13, 2014 (R.G. 13.12.2014-29204)."

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

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

Product Name AGROBİGEN® -PK 0-27-18 +(2 MgO) +me

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

Material Uses NPK Blended Fertilizer plus micronutrients

1.3. Details of the supplier of the safety data sheet

Manufacturer Name ECOBİGEN Gübre Tarım Gıda Tic. San. Ltd. Şti
Address Alparslan Mah. Samsun 1.Sok. No.13 Bafra, Samsun, TURKEY
Telephone +90 362 365 95 82
Web Address www.ecobigen.com.tr
E-Mail Address info@ecobigen.com.tr

1.4. Emergency Information

Contact Person Rıdvan KIZILKAYA
Contact Telephone +90 537 620 32 34

Section 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Oxidizing Solids Category	3; H272
Skin Corrosion/Irritation Category	2; H315
Eye Damage/Irritation Category	1; H318
Hazardous To The Aquatic Environment - Long-Term Hazard Category	2; H411

2.2 Label elements

Hazard pictograms (SEA)



Signal word (SEA)

Danger, Warning



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Hazard statements (SEA):

H272 May intensify fire; oxidizer.

H318 Causes serious eye damage.

Precautionary statements (SEA):

P210 Keep away from heat.

P273 Avoid release to the environment.

P280 Wear protective gloves/eye protection/face protection.

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

P370 + P378 In case of fire: Use carbon dioxide foam, water spray or dry chemical extinguishers. to extinguish.

P501 Dispose of contents/container in accordance with local/ regional/ national/ international regulations (to be specified).

2.3 Other hazards

Other effects are mentioned on Section 16.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Composition/information on ingredients

Not available

3.2 Information on Ingredients

Name	Chemical formula	EC No	CAS No
Monoammonium phosphate	$(\text{NH}_4)_2\text{H}_2\text{PO}_4$	231-764-5	7722-76-1
Potassium nitrate	KNO_3	231-818-8	7757-79-1
Magnesium sulfate	MgSO_4	231-298-2	7487-88-9
Disodium octaborate tetrahydrate	$\text{Na}_2\text{B}_8\text{O}_{13} \cdot 4\text{H}_2\text{O}$	234-541-0	12280-03-4
Ferrous sulfate	FeSO_4	231-753-5	7782-63-0
Manganese sulfate	MnSO_4	232-089-9	7785-87-7
Zinc sulfate	ZnSO_4	231-793-3	7446-20-0
Copper sulfate	CuSO_4	231-847-6	7758-98-7
Sodium molybdate	Na_2MoO_4	231-551-7	7631-95-0

See toxicological information (Section 16)



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Section 4: FIRST AID MEASURES

In case of eye contact	Rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If need get medical advice/attention.
In case of skin contact	Clean skin with soap and plenty of water.
If swallowed	Rinse mouth with water. Call a Poison Center or get medical advice/attention.
If inhaled	Remove person to fresh air and keep comfortable for breathing.

Section 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Carbon dioxide foam, water spray or dry chemical extinguishers.

5.2. Special hazards arising from the substance or mixture

Avoid contact with other combustible materials.

5.3. Advice for firefighters

Use NIOSH-approved respirator including the full face and eye protection and wear rubber gloves.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipments which are mentioned on Section 8.

6.2. Environmental precautions

Keep out off overground and underground waters.

6.3. Methods and materials for containment and cleaning up

Absorb spills with inert material and put chemicals into waste containers.

6.4. Reference to other sections

Reference to other sections are mentioned on Section 13.



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Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Keep away from heat/sparks/open flames/hot surfaces. Store in a cool and dry place. It should

not be exposed to direct sunlight. Keep away from extreme heat. Avoid formation of dust and aerosols. Avoid exposure

7.2. Conditions for safe storage, including any incompatibilities

Keep away from heat/sparks/open flames/hot surfaces. Store in tightly closed containers. Store in a cool and dry place away from nonconcurrent materials. Keep container tightly closed in a dry and well-ventilated place.

7.3. Specific end use(s)

There is not use of the product other than that specified in Section 1.2

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No data available.

8.2.2. Personal protective equipment



Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Respiratory protection

Wear respiratory protective mask (type N100 (US) or type P3 (EN 143) during operation.



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Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance	: Solid	
Colour	: White	
Odour	: Odourless	
pH (20°C, 1:10)	: 4-5,5	
Melting point/freezing point	: Not available	
Flash point	: Not available	
Initial boiling point	: Not available	
Solubility	: Soluble in water, acids	
Viscosity	: Not available	
Bulk density	: 800-1100 kg/m ³	
Plant Nutrient Contents	: Phosphorus Pentaoxide (P ₂ O ₅)	27 %
	: Potassium Oxide (K ₂ O)	18 %
	: Magnesium Oxide	2 %
	: Boron (B)	2 %
	: Copper (Cu)	0.1%
	: Iron (Fe)	0.04 %
	: Manganese (Mn)	1%
	: Molybdenum (Mo)	0.01%
	: Zinc (Zn)	2 %

9.2. Other safety information

Other information is not available.

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

Not available.

10.2. Chemical stability

The product is stable under normal conditions during transportation, storage and use.

10.3. Possibility of hazardous reactions

Not available.

10.4. Conditions to avoid

Exposure to moisture.

10.5. Incompatible materials

Strong reducing agents, strong acids, strong bases.



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10.6. Hazardous decomposition products

Hazardous decomposition products formed under fire conditions: Carbon oxides, oxides of potassium, Borane/boron oxides

Section 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	: LD 50 >2000 mg/kg Oral – Rate (OECD - 401)
Skin corrosion/irritation	: Prolonged exposure may cause skin irritation.
Serious eye damage/irritation	: May cause eye irritation on direct contact.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

Section 12: ECOLOGICAL INFORMATION

It has low aquatic toxicity to aquatic organisms. Does not meet the classification criteria.

TLM, 96 hours	: 10-1000 ppm
LC ₅₀ , Fish, 96 hours	: 6000 mg/l (<i>Sakmo gairdneri</i>)
EC ₅₀ , Daphnia	: 83 mg/l (<i>Daphnia magna</i>)

12.1 Bioaccumulative potential

No data available.

12.2 Mobility in soil

No data available.

12.3 Results of PBT and vPvB assessment

No data available.

12.4 Other adverse effects

Another negative effect is not expected.



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Section 13: DISPOSAL CONSIDERATION

13.1. Disposal considerations

Dispose of waste in accordance with national legislation.

Dispose of package in accordance with national legislation.

Section 14: TRANSPORT INFORMATION

RID: 1479 Oxidizing Solid, N.O.S.

ADR: 1479 Oxidizing Solid, N.O.S.

ADNR:-

IMDG Code: 1479 Oxidizing Solid, N.O.S.

ICAO-TI:-

IATA-DGR 1479 Oxidizing Solid, N.O.S.

14.1 UN number

1479

14.2 UN proper shipping name

Oxidizing Solid, B. B. B..

14.3. Transport hazard class(es)

5.1; O2

14.4. Packaging group

ADR/RID/ADN III

IMDG III

ICAO III

14.5. Environmental hazards

Toxic to aquatic life with long lasting effects.

14.6. Special precautions for user

Limited quantity	5 kg
EMS	F-H, S-Q
Emergency code	1Z
Hazard No. (ADR)	50
Tunnel restriction code	(E)



14.7. MARPOL 73/78 Annex II and IBC Code



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Section 15: REGULATORY INFORMATION

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

Regulation on Safety Data Sheets Regarding Hazardous Substances and Mixtures published in the Official Journal numbered 29204 on December 13, 2014

Globally Harmonized System Of Classification And Labelling Of Chemicals (Ghs), ST/SG/AC.10/30/Rev.4

Regulation on Restriction and Prohibition of Hazardous Substances and Mixtures published in the Official Journal numbered 27092 on December 26, 2008

Section 16: OTHER INFORMATION

Signal word (SEA) : Danger, Warning

Hazard statements (SEA):

H272: May intensify fire; oxidizer.

H315: Causes skin irritation.

H318: Causes serious eye damage.

H414: Toxic to aquatic life with long lasting effects.

GHS Code: GHS03, GHS05, GHS09



Precautionary statements (SEA):

Prevention

P210: Keep away from heat.

P220: Keep/Store away from clothing/.../combustible materials.

P221: Take any precaution to avoid mixing with combustibles/...

P264: Wash with plenty of water thoroughly after handling.

P273: Avoid release to the environment.

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

Response

P302 + P352: IF ON SKIN: Wash with plenty water.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER/doctor.



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P321: Specific treatment (see ... on this label).

P332 + P313: If skin irritation occurs: Get medical advice/attention.

P362 + P364: Take off contaminated clothing and wash it before reuse.

P370 + P378: In case of fire: Use carbon dioxide foam, water spray or dry chemical extinguishers. to extinguish.

P391: Collect spillage.

Disposal

P501: Dispose of contents/container in accordance with local/regional/ national/ international regulations (to be specified).

Appendix

ADR	European Agreement on the International Carriage of Dangerous Goods by Road.
ADN	European Agreement on the International Carriage of Dangerous Goods by Inland Waterways
RID	European Agreement on the International Carriage of Dangerous Goods by Rail
EC No	European Community number
CAS	Chemical Theories Service
LD ₅₀	50% (half) dose of substance causing death in the group of test animals (Median lethal Dose)
LC ₅₀	50% (half) lethal concentration of substance in the group of test animals
EC ₅₀	50% Effective Concentration of the substance causing the maximum response
PBT	Persistent, Bioaccumulative and Toxic
vPvB	Very Persistent, very Bioaccumulative
ACGIH	American Conference of State Industrial Hygienists
TWA	Time-weighted average
STEL	Short term exposure limit

Additional information

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