

SAFETY DATA SHEET

according to Reg. (EC) No 1907/2006 modified by Reg. (EU) No 2020/878

Section 1: Identification of mixture and of the company/undertaking

- 1.1. Product identifier:** **ORGANIT – Magnesium**
- 1.2. Relevant identified use:** EK fertilizer, liquid
containing magnesium sulphate enriched with chelated micro nutrients
Uses advised against: used other than above
- 1.3. Details of the distributor and supplier of the safety data sheet:**
ALPHAVET Állatgyógyászati Zrt.
Headquarters: H-1194 Budapest, Hofherr Albert u. 42, Hungary
Location: H-8000 Székesfehérvár, Homoksor 7. Hungary
Phone: +36 22 516 408
www.alphavet.hu
- E-mail address of the person responsible for the safety data sheet:** info@alpha-vet.hu

- 1.4. Emergency telephone numbers:**
Poison Control Centres in EU: <https://poisoncentres.echa.europa.eu/appointed-bodies>
Hungary: Health & Toxicological Information Service: 24 hr service: +36 1476 64 64

Section 2: Hazard identification

2.1. Classification of the mixture: the product is a **non-hazardous mixture** according to manufacturer and in compliance with Reg. (EC) No 1272/2008 and its modifications.

Product is not classified into physical, health and environmental hazard classes.

2.2. Label elements

Pictogram: not necessary
Signal word: not necessary
Hazard statement: not necessary
Precautionary statements

P102 KEEP OUT OF REACH OF CHILDREN.
P264 Wash hands thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.

Supplemental information: EUH210 – Safety data sheet available on request.

2.3. Other hazards

None under normal handling and use.

The product does not contain SVHC (Substances of Very High Concern) or SVHC candidate substances greater than $\geq 0.1\%$. Boric acid is toxic for reproduction and it is on the candidate list of substances of very high concern (SVHC). Boric acid concentration is 0.06% in the product.

List is available: <http://echa.europa.eu/candidate-list-table>

Components of the product satisfy neither the PBT (persistent, bio-accumulative and toxic), nor the vPvB (very persistent, very toxic) criteria in accordance with Annex XIII of Reg. (EC) No 1907/2006.

Components of the product are not listed in the endocrine disruptor and potential endocrine disruptor databases.

Section 3: Composition/information on ingredients

3.1. Substance: does not apply.

3.2. Mixture: the product is a mixture, aqueous solution.

Composition: magnesium ions (Mg^{2+}) in form of sulphate salts
 micro nutrients: copper (Cu^{2+}), manganese (Mn^{2+}), zinc (Zn^{2+}) and iron (Fe^{2+}) ions in form of sulphate salts or chelates formed with EDDHSA (ethylenediamine-N,N'-di[(2-hydroxy-5-sulphophenyl)acetic acid]; CAS No: 57368-07-7 and 642045-40-7).
 Boric acid content: 0.06%

Hazardous components of the product which must be listed according to Reg (EU) No 2020/8780:

Hazardous components	Concentration	Hazard class, category, H-statement
Copper (II) sulphate pentahydrate ($CuSO_4 \times 5H_2O$)* CAS No: 7758-99-8 EC No: 231-847-6 Index No.: 029-023-00-4	0.008%	Acute Tox. (oral) 4, H302; Eye Dam. 1, H318; Aquatic Acute 1, H400, $M_{(acute)}$: 10; Aquatic Chronic 1, H410, $M_{(chronic)}$: 1 ATE (oral): 481 mg/kg bw
Manganese (II) sulphate hydrate ($MnSO_4 \times H_2O$)* CAS No: 10034-96-5 EC No: 232-089-9 Index No: 025-003-00-4	0.06%	STOT RE 2, H373; Aquatic Chronic 2, H411

* Substance has workplace exposure limit, see Section 8

The other components of the product are not hazardous, or their concentrations are low enough not to be taken into consideration in the classification and labelling of the product according to the relevant regulations.

Hazard classes, H statements relate to pure components. Hazard classification of the product is given in Section 2. Full texts of the H statements and hazard classes, categories are listed in Section 16.

Section 4: First Aid measures

4.1. Description of first aid measures

Fast and professional first aid measures can largely diminish progress and severity of the symptoms.

AFTER INHALATION: after inhalation of high volume of spray/mist move to fresh air and consult physician in case of persistent complaints.

SKIN CONTACT: wash the contaminated skin with running water and soap. If irritation and complaints persist call a physician.

EYE CONTACT: thoroughly flush eyes with large amount of water at least 5 minutes while holding the eyelids wide open and moving the eyeballs. Remove contact lenses if easy to do it. If eye irritation, pain and lacrimation persist consult an eye specialist.

INGESTION: rinse mouth with water and drink 1-2 glasses of water. Contact a physician immediately, show label or safety data sheet of the product.

4.2. Most important symptoms and effect, both acute and delayed: specific symptoms are not known. If swallowed it may irritate the mucous membranes and digestive tract.

4.3. Indication of any immediate medical attention and special treatment needed: If toxic symptoms develop or suspicion of intoxication occurs, stop the work and provide first aid and then seek medical advice immediately. Show the label and safety data sheet of the product.

Note to physician: symptomatic and supportive treatment is necessary. Specific antidote is not available.

Section 5: Fire-fighting measures

5.1. Extinguishing media: water jet, chemical foam, carbon dioxide, and dry powder.

Extinguishing measures have to suit surroundings.

Unsuitable extinguishing media: not known.

5.2. Special hazard arising from the mixture: at high temperature combustion and decomposition may produce toxic gases, vapours and fumes (nitrogen oxides, sulfur oxides, carbon oxides, etc.).

5.3. Advice for fire-fighters: wear full protective clothing, gloves and helmet and positive pressure self-contained breathing apparatus.

Section 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedure:

Avoid exposure, avoid eye and skin contact and wear personal protective equipment during collection of large spillages, see details in Section 8. Accidental release measures should be carried out by trained personnel equipped with personal protective equipment.

6.2. Environmental precautions: ensure that the spilled material and its waste do not enter sewers, water bodies and groundwater. Dispose of waste material in accordance with local regulations.

6.3. Methods and material for containment and cleaning up: in the event of a major spillage, absorb large quantities of product into inert material (sand, vermiculite, earth, sawdust). Collect contaminated absorbent in labelled containers, keep it closed and dispose of according to local regulations. Contaminated area should be rinsed with water. Take care of slipping.

6.4. Reference to other sections: see Section 8 and 13.

Section 7: Handling and storage

7.1. Precautions for safe handling

Work carefully to avoid contact with skin and eyes and accidental ingestion.

Do not eat, drink or smoke when using.

Wash hands after handling the product, thorough washing or shower if possible is also recommended.

Precautions in case of fire and explosion: no special measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities

Store in the original container in frost free, cool area protected from sunlight.

Container should be properly labelled and tightly closed.

Keep out of reach of children.

Keep far away from foodstuff, drinks and feeding stuff.

Do not store together with incompatible materials.

Incompatible materials: alkaline and oxidizing agents.

Recommended temperature during storage: 5 – 40°C

7.3. Specific end use: fertilizer

Users should read and keep the safety instructions and measures for safe handling and usage.

Section 8: Exposure controls/personal protection

8.1. Control parameters/occupational exposure limits

Limit values in workplace air established in 5/2020. (II.6.) Hungarian ITM decree and Dir. (EU) No 2017/164

Copper and its compounds (calculated as copper): ÁK: 0,1 mg/m³, CK: 0,2 mg/m³

Manganese and its inorganic salts (calculated as Mn): ÁK: 0,2 mg/m³ (inhalable)

0,05 mg/m³ (respirable)

Once a year biological monitoring of Mn exposure is required in Hungary, 33/1998. (VI.4.) NM decree.

8.2. Exposure controls

Work carefully to avoid exposure with the product (skin and eye contact, inhalation of spray/mist).

General rules and good practices of handling chemicals should be followed.

Technical measures

- Provide good ventilation and personal protective equipment.

Hygiene measures

- Do not eat, drink or smoke while handling.
- Wash hands after work and at the beginning of every work break and before eating, drinking and smoking.
- After finishing work washing/showering is recommended.

Personal protective equipment

- **Respiratory system protection:** not necessary.
- **Hand protection:** protective gloves are recommended. Wear protective gloves according to EN 374 standard. When choosing the material of the gloves take in consideration the expected exposure to the product (short or long exposure time, mechanical stress, risk of full contact, risk of splash, etc.) and possibility of contact with other chemicals.
- **Eye protection:** wearing EN 166 standard compliant safety glasses is necessary if splashing is possible, in case of handling large quantities, industrial operations and decontamination.
- **Body protection:** should be selected depending on the use and expected exposure level (working clothes, protective clothes).

Environmental exposure control: no special measurement is necessary.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	liquid
Appearance:	aqueous mixture
Colour:	reddish - brown
Odour:	not characteristic
Odour threshold:	not relevant
pH value at 20°C:	5.8 ± 0.5
Pouring point:	no data
Boiling point:	no data
Flash point:	no data, not relevant, aqueous mixture
Evaporation rate:	no data
Flammability (gas, solid):	not relevant
Explosion limits:	no data
Vapour pressure/density:	no data
Density at 20°C:	1.20±0.05 g/cm ³
Solubility in water:	unlimited
Partition coefficient, logP _{o/w} :	not relevant, the product is mixture
Auto ignition temperature:	no data
Decomposition temperature:	no data
Viscosity:	no data
Explosion properties:	no explosion hazard
Oxidising properties:	not oxidising

9.2. Other information:

9.2.1. Information with regard to physical hazard classes: there are no test results, experiences which result in classification of the product into physical hazard classes.

9.2.2. Other safety characteristics: other safety characteristics: none indicated as relevant for the safe use of the mixture.

Section 10: Stability and reactivity

10.1. Reactivity: not really reactive, but reacts with oxidizing agents. Do not mix with alkaline materials.

10.2. Chemical stability: stable under normal condition (usual temperature and pressure condition) if it is handled, stored according to user's instructions.

10.3. Possibility of hazardous reactions: no hazardous reaction known under conditions of normal use.

10.4. Condition to avoid: heat, high temperature, frost.

10.5. Incompatible materials: alkaline, oxidizing agents.

10.6. Hazardous decomposition products: no decomposition if used as directed.

Section 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008:

Acute toxicity (oral, dermal, inhalation): criteria for classification of the product into acute toxicity hazard classes are not met based on the composition.

Skin corrosion/irritation: classification criteria are not met according to composition and classification of ingredients.

Serious eye damage/eye irritation: classification criteria are not met according to composition and classification of ingredients.

Respiratory or skin sensitization: classification criteria are not met based on the composition.

Carcinogenicity: ingredients of the product are not classified as carcinogenic substances; classification criteria are not met.

Germ-cell mutagenicity: ingredients are not classified as mutagenic substances; classification criteria are not met.

Reproductive toxicity: concentration of boric acid in the mixture is 0.06% so classification criteria are not met. As the concentration of boric acid is below 0.1%, it is not even listed in the table of Section 3.

Specific Target Organ Toxicity single exposure/STOT SE: based on the available data and information on ingredients the

Specific Target Organ Toxicity repeated exposure/STOT RE: based on the classification of ingredients the classification criteria are not met as concentration of manganese (II) sulphate hydrate is low.

Aspiration hazard: classification criteria are not met.

Section 12: Ecological information

12.1. Toxicity: no investigation was performed with this product. The product is not classified as hazardous mixture to the aquatic environment based on the calculation method given in Reg. (EC) No 1272/2008; calculation is based on concentration, classification, M factors of the ingredients.

12.2. Persistence and degradability: not relevant for inorganics salts.

12.3. Bioaccumulative potential: not expected.

12.4. Mobility in soil: no data.

12.5. Results of PBT- and vPvB-assessment: components of the mixture are not identified PBT/vPvB substances.

12.6. Endocrine disrupting properties: components of the product are not listed in the available lists and databases of endocrine disruptors and suspected endocrine disruptors.

12.7. Other adverse effects: not known.

Section 13: Disposal considerations

13.1. Waste treatment methods

If it is possible avoid or at least minimize waste generation. Chemical and its waste and packaging must be disposed of in compliance with state and local regulations and Directive EC 2008/98.

Contact your sales representative or local environmental or health authorities for approved disposal or recycling methods.

European Waste Catalogue waste codes are not specific for products, but for their uses. Therefore, appropriate waste code should assign final user according to his specific use.

Recommended EWC code: 02 01 09 – agrochemical waste other than those mentioned in 02 01 08

Do not empty waste into drains, rivers, watercourses, ponds, standing waters, natural waterways.

Section 14: Transport information

According to the international transport (ADR/RID, IMDG and ICAO/IATA) regulations the product is **non-dangerous goods**.

14.1. UN-number: not applicable.

14.2. UN proper shipping name: not applicable.

14.3. Transport hazard class (es): not applicable.

14.4. Packaging group: not applicable.

14.5. Environmental hazards: none.

14.6. Special precautions for users: not applicable.

14.7. Maritime transport in bulk according to IMO instruments: not applicable.

Section 15: Regulatory information

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

The product does not contain SVHC candidate substances greater than $\geq 0.1\%$.

Relevant European Acts

Regulation (EU) 2019/1009 laying down rules on the making available on the market of EU fertilising products

REACH and its modifications: Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Regulation (EC) No 1272/2008 (CLP) and its modifications

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on Waste and Repealing Certain Directives

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Lists of proposed occupational exposure limit values for the implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work in Directives 2000/39/EU, 2006/15/EU, 2009/161/EU, 2017/164/EU and 2019/1831/EU and Directive 2004/37/EC and its amendment; <https://echa.europa.eu/hu/cad-and-cmd-legislation>

15.2. Chemical Safety Assessment: has not been carried out.

Section 16: Other information

The information contained in the Safety Data Sheet is true and correct to our best knowledge at the date of issue; it is intended as a guide for safe use, handling, disposal, storage and transportation.

Manufacturer/Distributor does not assume any warranty or responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected to the handling, storage, use or disposal of the product because conditions of application, handling, storage, use or disposal of the product is beyond our control.

Classification of the product: the product is classified by calculations methods in accordance with the Reg (EC) No 1272/2008.

Training recommendation: In the annual occupational safety training workers should be informed about the hazards of handling chemicals and the general safety and health protection measures.

SAFETY DATA SHEET SHOULD ALWAYS BE AVAILABLE FOR WORKERS AT HAND.

Abbreviations: hazard classes (numbers after abbreviations mean the hazard category within the class, higher numbers mean less hazard): Acute Tox.: acute toxicity; STOT RE: Specific Target Organ Toxicity, repeated exposure; Aquatic Acute: hazardous to the aquatic environment, acute hazard; Aquatic Chronic: hazardous to the aquatic environment, chronic hazard.

H302 Harmful if swallowed.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H411 Toxic to aquatic life with long lasting effects.

ADR European Agreement concerning the International Carriage of Dangerous Goods by Road

ÅK average, allowable concentration of pollutants in the air, in a shift, which will not cause any adverse health effect

ATE Acute Toxicity Estimate

CAS	Chemical Abstract Service, number for the identification of chemical substances.
CK	Allowable peak concentration: short-term allowable concentration of air pollutants in the air of the workplace
CLP	Classification, Labelling and Packaging
EDDHS	ethylenediamine-N,N'-di[(2-hydroxy-5-sulphophenyl)acetic acid]
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization Technical Instruction for the Safe Transport of Dangerous Goods by Air
IMDG	International Maritime Dangerous Goods Code
IMO	international Maritime Organization
M	multiplying factor, it is used to derive by summation method the classification of mixtures
M _(acute)	M-factor of aquatic acute toxicity
M _(chronic)	M-factor of aquatic chronic toxicity
PBT	Persistent, bio accumulative and toxic
RID	Accord Européen Relatif Au Transport International Des Marchandises Dangereuses Par Route
STEL	Short Term Exposure Limit; a limit value above which exposure should not occur and which is related to a 15-minute period
SVHC	Substance of Very High Concern
TWA	measured/calculated in relation to a reference period of eight hours as a time-weighted average
vPvB	Very persistent and very bioaccumulative

History: Safety Data Sheet (2.0-EN) is issued on 14th Feb. 2024. It is based on the manufacturer's data, supersedes the previous version, the purpose of the modification is to comply with the Reg. (EU) No 2020/878.