

GoudenKorrel®

SAFETY DATA SHEET POLYHALITE COMPLEX

Prepared in accordance with COMMISSION REGULATION (EU) 2020/878 of June 18, 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

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

Date of preparation	04.10.2024
Update date	-

1.1. Product identifier

Trade name	POLYHALITE COMPLEX
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1.2. Relevant identified uses of the substance or mixture and uses advised against

Application	Agriculture, as a complex fertilizer. Exclusively for the professional user.
Uses advised against	Uses advised against have not been identified

1.3. Details of the supplier of the safety data sheet

Company	GoudenKorrel S.A.
Address	Kaliska, 5 Fabryczna Street 87-840 Lubien Kujawski
Phone number	+48 607 777 111
E-mail	kontakt@goudenkorrel.com
Website	www.goudenkorrel.com

1.4. Emergency phone number

Emergency phone number	112 Emergency notification center (CPR)
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SECTION 2: HAZARD IDENTIFICATION

2.1. Classification of the substance or mixture

CLP classification	Classification according to Regulation (EC) 1272/2008 - unclassified
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2.2. Elements of signage

Other information on the label (CLP)	Classification according to Regulation (EC) 1272/2008 - unclassified
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2.3. Other risks

PBT / vPvB	Substance does not meet current criteria for vPvB (very persistent and very bioaccumulative)
Other risks	Does not meet

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1. Substances

Not applicable	Classification according to Regulation (EC) 1272/2008
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3.2. Mixtures

Identification ⁽¹⁾	Name of the substance _ Classification according to Reg. 1272/2008	Concentration
CLP 026-003-01-4 EC 231-753-5 CAS 7782-63-0 REACH 01-2119513203-57-xxxx	Iron(II) sulfate (1:1) heptahydrate⁽²⁾ Mol. Form. Acute Tox.4 H302; Eye Irrit.2 H319; Skin Irrit.2 H315; Sp.con. limit: Skin Irrit.2; H315: C≥25%. FeSO ₄	0,01<1%
CLP 030-006-00-9 EC 231-793-3 CAS 7733-02-0 REACH 01-21119474684-27-xxxx	Zinc(II) sulfate(VI) (hydrated)⁽²⁾ Mol. Form. Acute Tox.4 H302; Eye Dam.1 H318; Aquatic Acute1 H400; Aquatic Chronic1 H410. H ₂ O ₄ S.Zn	0,01<0,1%
CLP 025-003-00-4 EC 232-089-9 CAS 7785-87-7 REACH 01-2119456624-35-xxxx	Manganese(II) sulfate(VI)⁽²⁾ Mol. Form. STOT RE2 H373; ; Aquatic Chronic2 H411 H ₂ O ₄ S.Mn	0,01<0,3%
CLP Not Classified EC 231-915-5 CAS 7778-80-5 REACH 01-2119489441-34	Potassium sulfate Mol. Form. Not Classified K ₂ O ₄ S	-
CLP Not Classified EC 231-764-5 CAS 7722-76-1 REACH 01-2119488166-29-0018	Ammonium phosphate Mol. Form. Not Classified H ₆ NO ₄ P	-
CLP Not Classified EC 231-984-1 CAS 7783-20-2 REACH 01-2119455044-46-0040	Ammonium sulfate Mol. Form. Not Classified H ₈ N ₂ O ₄ S	-
CLP Not Classified EC 200-315-5 CAS 57-13-6 REACH 01-2119463277-33-0044	Urea Mol. Form. Not Classified (NH ₂) ₂ CO	-

CLP	Not Classified	Polyhalite		-
EC	604-869-2	Mol. Form.	Not Classified	
CAS	15278-29-2	$K_2MgCa_2(SO_4)_4 \cdot 2H_2O$		
REACH	-			
CLP	Not Classified	Magnesium carbonate		-
EC	240-440-2	Mol. Form.	Not Classified	
CAS	16389-88-1	$CaMg(CO_3)_2$		
REACH	-			

⁽¹⁾Substance is a health or environmental hazard according to Commission Regulation (EU) 2020/878 (REACH)

⁽²⁾Substance with a maximum occupational concentration limit set at Union level

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice	No special measures are required.
Inhalation	Elevate the affected person from the place of exposure, place in a comfortable semi-reclining or sitting position. Take care of fresh air; seek medical advice in case of ailments.
Skin contact	Immediately remove contaminated clothing and rinse skin profusely with lukewarm running water, if irritation persists seek medical advice.
Eye contact	Immediately flush eyes with plenty of cool water, preferably running water, for at least 10 minutes. Remove contact lenses, avoid strong jets of water due to the risk of mechanical damage to the cornea. If symptoms persist, seek medical advice.
Swallowing	Do not cause vomiting. Rinse out mouth with water. Drink plenty of water. If symptoms persist, seek medical advice.

4.2. Most important acute and delayed symptoms and effects of exposure

Acute symptoms and effects	Irritation, redness, tearing, burning and itching of the eye. Itching and local redness of the skin. Slight irritation of the respiratory system, nasal and oral mucosa, and cough. After ingestion, damage to the gastrointestinal mucosa, vomiting and diarrhea may occur.
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4.3. Indications for any immediate medical attention and special treatment dealings with the victim

Other information	Follow the recommendations in section 4.1.
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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing agents

Suitable extinguishing agents	Use extinguishing agents suitable for the surrounding materials
Unsuitable extinguishing agents	Not specified

5.2. Special hazards associated with the substance or mixture

Fire and explosion hazards	The mixture is not classified as flammable. Oxides of sulfur and nitrogen may form during combustion.
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5.3. Information for the fire department

Personal protective equipment	Special fire protection is not required. In case of fire, hazard information available in section 10 in 10.6
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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and procedures in situations of emergency

Personal protective equipment	Wear individual protective equipment. Avoid dust formation. Use respiratory protective equipment against smoke, dust and aerosol. Wear protective clothing.
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6.2 Environmental precautions

Environmental precautions	Avoid the release of large quantities of the mixture into the environment or watercourses. Exercise caution to avoid contamination of waterways or sewers and notify appropriate services in case of accidental contamination.
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6.3 Methods and materials for containment and disposal contaminations

Cleaning	Carefully sweep and pick up. If necessary, use a vacuum cleaner with a water spray system or cleaning systems (with high-efficiency particulate filters). Prevent dust in the air. Wear personal protective equipment in accordance with national regulations.
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6.4 References to other sections

Other instructions	Sections 8 for the use of personal protective equipment and 13 waste handling.
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SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES

7.1 Precautions for safe handling

Proceedings	Provide gravity ventilation. Use protective equipment. Use work methods that minimize dust generation. Avoid inhalation of dust. The product is not a fire hazard under normal production and storage conditions.
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7.2 Conditions for safe storage, including information on any mutual incompatibilities

Storage	Fertilizer should be stored in a dry and sunless place, in the temperature range of 0°C to +40°C, taking care not to allow the product to freeze and protecting it from negative temperatures. Keep out of the reach of children, pets and livestock, away from water and food sources.
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7.3 Specific end use(s)

Other	No specific uses identified
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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTIVE EQUIPMENT

8.1 Control parameters

THE HIGHEST POSSIBLE CONCENTRATION IN POLAND OJ. 2018 item 1286:				
Name and CAS number of the chemical		DNS	Legal basis	
Magnesium carbonate	16389-88-1	10 mg/m ³	Ordinance of the Minister of Family, Labor and Social Policy dated June 12, 2018. Appendix 1	
Manganese	7439-96-5	0.2 mg/m ³		
Dusts not classified for toxicity		10 mg/m ³		

DNEL VALUES					
Employees		Iron(II) sulfate	Zinc(II) sulfate(VI)	Manganese(II) sulfate(VI)	
Long-term systemic effects	Skinny	-	8.3 mg/kg	0.00414 mg/kg	
Acute systemic effects		-	-	-	
Long-term systemic effects	Inhalationally	-	1 mg/m ³	0.2 mg/m ³	
Acute systemic effects		-	-	-	
Long-term systemic effects	Foodwise	13.95 mg/kg	-	-	
Acute systemic effects		-	-	-	

DNEL VALUES				
Consumers		Iron(II) sulfate	Zinc(II) sulfate(VI)	Manganese(II) sulfate(VI)
Long-term systemic effects	Skinned	6.97 mg/kg	8.3 mg/kg	-
Acute systemic effects		-	-	-
Long-term systemic effects	Inhalationally	-	1.25 mg/m ³	0.043 mg/m ³
Acute systemic effects		-	-	-
Long-term systemic effects	Foodwise	1.4 mg/kg	0.83 mg/kg	0.0021 mg/kg
Acute systemic effects		99.6 mg/kg	-	-

PNEC VALUES			
	Sulfate iron(II)	Sulfate(VI) zinc(II)	Manganese(II) sulfate(VI)
Fresh water	-	20.6 µg/dm ³	0.0128 mg/dm ³
Seawater	-	6.1 µg/dm ³	0.0004 mg/dm ³
Wastewater treatment plant	-	0.1 mg/dm ³	56 mg/dm ³

8.2 Exposure controls

Relevant technical control measures	To prevent accidental exposure, dust accumulation should be prevented. The use of appropriate personal protective equipment is recommended. Protective goggles should be worn unless the risk of eye contact can be completely excluded due to the specifics of the application (e.g., closed process). In addition, protective clothing and shoes should be used.
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Individual protection measures such as personal protective equipment	
Eye or face protection	Safety goggles must be used. In case of dust, insert tight-fitting goggles with side shields, or encased goggles with a wide angle of view.
Skin protection	Use approved CE-marked nitrile-impregnated gloves. Use clothing that completely covers the skin, full-length pants, long-sleeved blouses. Protective footwear to prevent dust penetration.
Respiratory protection	Use appropriate respiratory protection against particles depending on the level of risk.
Thermal hazards	The substance is not a fire (thermal) hazard, so no special solutions are required in this regard.

Environmental exposure control	Based on all available data, the product is not considered hazardous to the environment. Do not allow undiluted product or large quantities of it to enter groundwater, surface water or sewage system.
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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

PARAMETER	VALUE
State of concentration	Solid
Color	Red, pale red, pink, white, beige
Fragrance	Unspecified
Melting / solidification point	No data available
Boiling point or initial boiling point and boiling range	No data available
Flammability of materials	Non-flammable product
Lower and upper explosive limits	No data available
Flash point	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
pH	6
Kinematic viscosity	Not applicable
Solubility	Substance completely soluble in water
Partition coefficient n-octanol / water	Not applicable
Vapor pressure	Not applicable
Density or relative density	0.86 T/m ³
Relative vapor density	Not applicable
Particle characteristics	98% of the product is in the form of granules with a size of 2-5mm

9.2 Other information

Other properties	No further information
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SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

Reactivity	Non-reactive during storage, use and application under normal temperature conditions and recommended use.
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10.2 Chemical stability

Chemical stability	Stable during storage, use and application under normal temperature conditions and recommended use.
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10.3 Possibility of hazardous reactions

Dangerous reactions	There are no known dangerous reactions
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10.4 Conditions to avoid

Conditions to avoid	Unnecessary exposure to weather, moisture and high temperatures. Proximity to sources of heat or fire.
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10.5 Incompatible materials

Incompatible materials	No additional information
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10.6 Hazardous decomposition products

Hazardous decomposition products	Possible formation of toxic gases during combustion; Oxides of sulfur and nitrogen may form during combustion.
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SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on hazard classes as defined in Regulation (EC) No. 1272/2008**

HAZARD CLASSES	ASSESSMENT
Classification according to GHS (1272/2008/EC, CLP)	This substance does not meet the criteria for classification according to Regulation No. 1272/2008/EC
Acute toxicity	Based on available data, the product is not subject to classification. Product contains substances classified as hazardous*
Corrosive/irritating effect on skin	Based on available data, the product is not subject to classification. Product contains substances classified as hazardous*
Serious eye damage/eye irritation	Based on available data, the product is not subject to classification. Product contains substances classified as hazardous*
Sensitizing effect on the skin or respiratory tract	Based on available data, the product is not subject to classification. Product contains substances classified as hazardous*
Mutagenic effect on germ cells	Based on available data, the product is not subject to classification.
Carcinogenic effects	Based on available data, the product is not subject to classification.
Reproductive toxicity	Based on available data, the product is not subject to classification.
Toxic effects on target organs - single exposure	Based on available data, the product is not subject to classification. Product contains substances classified as hazardous*
Toxic effects on target organs - repeated exposure	Based on available data, the product is not subject to classification. Product contains substances classified as hazardous*
Aspiration hazard	Based on available data, the product is not subject to classification. Product contains substances classified as hazardous*

*More information available in sections 3.2 and 8.1.

Toxicological information on substances			
(Rat)	Sulfate iron(II)	Sulfate(VI) zinc(II)	Manganese(II) sulfate(VI)
Oral LD50	1.96 mg/kg	1710 mg/kg	2150 mg/kg
Dermal LD50	> 2,000 mg/kg	-	-
Inhalation LC50	-	-	> 4.45 mg/l

11.2 Information on other hazards

Other information	No information on endocrine disrupting properties according to the criteria specified in the relevant regulations ((EC) No. 1907/2006, (EU) 2017/2100, (EU) 2018/605)).
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SECTION 12: ECOLOGICAL INFORMATION**12.1 Toxicity**

Toxicity	Not classified as posing a threat to the aquatic environment
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12.2 Persistence and degradability

Schedule	Methods to determine biodegradation are not suitable for inorganic materials.
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12.3 Bioaccumulative potential

Bioaccumulation	Low potential
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12.4 Mobility in soil

Mobility	Soluble in water
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12.5 Results of PBT and vPvB assessment

PBT / vPvB	Substance does not meet current criteria for vPvB (very persistent and very bioaccumulative)
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12.6 Endocrine disrupting properties

Effects on the endocrine system	No information on endocrine disrupting properties
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12.7 Other harmful side effects

Other information	No further relevant information
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SECTION 13: WASTE TREATMENT**13.1 Waste disposal methods**

Appropriate disposal methods	Waste handling should be carried out in accordance with applicable regulations and procedures. Depending on the degree of contamination, it can be used as a fertilizer for agricultural purposes or sent to a specialized company for disposal. In case of spillage, handling information available in Section 6.
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SECTION 14: TRANSPORT INFORMATION

Fertilizers are not classified, are not considered hazardous materials according to the UN Orange Book and international transport codes, among others, RID - rail; ADR - road transport; IMDG - maritime.

14.1 UN number or ID number

UN number / ID	Not applicable
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14.2 UN proper shipping name

It's called UN	Not applicable
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14.3 Transport hazard class(es)

Hazard class	Not applicable
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14.4 Packing group

Packaging group	Not applicable
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14.5 Environmental risks

Threat to the environment	Not applicable
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14.6 Special precautions for users

Precautions	Not applicable
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14.7 Sea transport in bulk in accordance with IMO instruments

Maritime transport	Not applicable
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SECTION 15: REGULATORY INFORMATION**15.1 Safety, health and environmental regulations specific to the substance or mixture**

EUROPEAN UNION REGULATIONS	
Normative document	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of December 18, 2006 concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94, as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
Normative document	COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH)

Normative document	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of December 16, 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
Normative document	Directive 1999/45/EC of the European Parliament and of the Council of May 31, 1999 on the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labeling of dangerous preparations

NATIONAL REGULATIONS	
Normative document	Ordinance of the Minister of Family, Labor and Social Policy dated June 12, 2018.
Normative document	Law of February 25, 2011 on chemical substances and their mixtures
Normative document	Law of December 14, 2012 on waste
Normative document	Act of June 13, 2013 on packaging and packaging waste management.

15.2 Chemical safety assessment

Evaluation process	According to the REACH Regulation, there is no obligation to carry out a chemical safety assessment
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SECTION 16: OTHER INFORMATION

Changes made	No																				
Explanation of abbreviations and acronyms	<table border="0"> <tr> <td>Mol. Form.</td> <td>Chemical formula</td> </tr> <tr> <td>CAS no</td> <td>Numerical meaning assigned to a chemical substance.</td> </tr> <tr> <td>EC/list no</td> <td>International classification of enzymes</td> </tr> <tr> <td>ECHA</td> <td>European Chemicals Agency</td> </tr> <tr> <td>DNEL</td> <td>Derivative level of no change in health</td> </tr> <tr> <td>PNEC</td> <td>Predicted no-change concentration in the environment.</td> </tr> <tr> <td>PBT</td> <td></td> </tr> <tr> <td>vPvB</td> <td>Persistent, bioaccumulative, harmful substance</td> </tr> <tr> <td>UN</td> <td>B. permanent, subject to significant bioaccum. Sub.</td> </tr> <tr> <td>ID</td> <td>Chemical No. assigned to hazardous sub. Substance identification number</td> </tr> </table>	Mol. Form.	Chemical formula	CAS no	Numerical meaning assigned to a chemical substance.	EC/list no	International classification of enzymes	ECHA	European Chemicals Agency	DNEL	Derivative level of no change in health	PNEC	Predicted no-change concentration in the environment.	PBT		vPvB	Persistent, bioaccumulative, harmful substance	UN	B. permanent, subject to significant bioaccum. Sub.	ID	Chemical No. assigned to hazardous sub. Substance identification number
Mol. Form.	Chemical formula																				
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vPvB	Persistent, bioaccumulative, harmful substance																				
UN	B. permanent, subject to significant bioaccum. Sub.																				
ID	Chemical No. assigned to hazardous sub. Substance identification number																				
Reference sources	The charter was created on the basis of the manufacturer's data, safety data sheets of suppliers of raw materials, data from online databases, taking into account the current legal regulations																				
Training	Familiarize persons in direct contact with the product with this Safety Data Sheet																				