

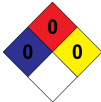


## GK4/P SACHET & MANTA

### SECTION 1: IDENTIFICATION

- 1.1 GHS Product identifier:** GK4/P SACHET & MANTA  
**Other means of identification:**  
M B+P Blanket, MF Blanket & MF Ad Blanket; GK4/1,5 (7 g, 5 g, 2.5 g)  
SACHETS: GK4/P (9 g, 7 g, 5 g, 2.5 g, 1.7, 1 g) SACHETS
- 1.2 Recommended use of the chemical and restrictions on use:**  
Relevant uses: Retardant of putrefaction  
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Name, address, and telephone number of the chemical manufacturer, importer, or other responsible party:**  
Greenkeeper Iberia SL  
C/ Sierra Vieja nº13  
28031 Madrid - Madrid - SPAIN  
Phone.: +34 91.380.04.08 - Fax: +34 91.380.04.08  
msds@greenkeeperiberia.com  
www.greenkeeperiberia.com
- 1.4 Emergency phone number:** +34 91 380 04 08

### SECTION 2: HAZARD(S) IDENTIFICATION

- 2.1 Classification of the substance or mixture:**  
**NFPA:**  
Health Hazards: 0  
Flammability Hazards: 0  
Instability Hazards: 0  
Special Hazards: Non-applicable  
**29 CFR 1910.1200:**  
While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
- 2.2 Label elements:**  
**NFPA:**  
  
**29 CFR 1910.1200:**  
None  
**Additional labeling:**  
The granulated one is in a counterfoil polimerica of Tyvek's materials/PE-PS, that is resistant to the water and does that the product does not have to be considered " Toxin for the aquatic organisms, with harmful lasting effects ". If the sachet was breaking then if that the product has to be considered " Toxin for the aquatic organisms, with harmful lasting effects ".
- 2.3 Hazards not otherwise classified (HNOC):**  
Non-applicable

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1 Substances:**  
Non-applicable
- 3.2 Mixtures:**  
**Chemical description:** Mixture composed of inorganic substances  
**Components:**  
Remaining components are non-hazardous and/or present at amounts below reportable limits. The specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret in accordance with paragraph (i) of §1910.1200. Therefore, in accordance with Appendix D to § 1910.1200, the product contains:

- CONTINUED ON NEXT PAGE -



## GK4/P SACHET & MANTA

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Chemical name	Concentration
CAS: 7722-64-7	Potassium permanganate	2,5 - <10 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

#### Other information:

Identification	M-factor
Potassium permanganate	Acute 10
CAS: 7722-64-7	Chronic 10

### SECTION 4: FIRST-AID MEASURES

#### 4.1 Description of necessary measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

##### By inhalation:

This product does not contain substances classified as hazardous for inhalation, however, in case of symptoms of intoxication remove the person affected from the exposure area and provide with fresh air. Seek medical attention if the symptoms get worse or persist.

##### By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or shower the person affected if necessary thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

##### By eye contact:

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, as this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

##### By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

#### 4.2 Most important symptoms/effects, acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

#### 4.3 Indication of immediate medical attention and special treatment needed, if necessary:

Non-applicable

### SECTION 5: FIRE-FIGHTING MEASURES

#### 5.1 Suitable (and unsuitable) extinguishing media:

##### Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. Use preferably water.

##### Unsuitable extinguishing media:

Chemical extinguishers or foam.

#### 5.2 Specific hazards arising from the chemical:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

#### 5.3 Special protective equipment and precautions for fire-fighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and individual respiratory equipment. Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...)

##### Additional provisions:

As in any fire, prevent human exposure to fire, smoke, fumes or products of combustion. Only properly trained personnel should be involved in firefighting. Evacuate nonessential personnel from the fire area. Destroy any source of ignition. In case of fire, refrigerate the storage containers and tanks for products susceptible to inflammation. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

- CONTINUED ON NEXT PAGE -



**GK4/P SACHET & MANTA**

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Personal precautions, protective equipment and emergency procedures:**

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

**6.2 Environmental precautions:**

This product is not classified as hazardous to the environment. Keep product away from drains, surface and underground water.

**6.3 Methods and materials for containment and cleaning up:**

It is recommended:

Sweep up and shovel product or other means and place in container for reuse (preferred) or disposal

**6.4 Reference to other sections:**

See sections 8 and 13.

**SECTION 7: HANDLING AND STORAGE**

**7.1 Precautions for safe handling:**

A.- Precautions for safe manipulation

Comply with the current standards 29 CFR 1910 Occupational Safety and Health Standards. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Due to its non-flammable nature, the product does not present a fire risk under normal conditions of storage, manipulation and use.

C.- Technical recommendations to prevent ergonomic and toxicological risks

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

**7.2 Conditions for safe storage, including any incompatibilities:**

A.- Technical measures for storage

Minimum Temp.: 41 °F

Maximum Temp.: 104 °F

Maximum time: 24 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

**7.3 Specific end use(s):**

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace:

US. ACGIH Threshold Limit Values:

Identification	Occupational exposure limits
Potassium permanganate CAS: 7722-64-7	TLV-TWA 0.02 mg/m <sup>3</sup> TLV-STEL

CALIFORNIA- TABLE AC-1 PERMISSIBLE EXPOSURE LIMITS FOR CHEMICAL CONTAMINANTS:

Identification	Occupational exposure limits
Potassium permanganate CAS: 7722-64-7	PEL 0.2 mg/m <sup>3</sup> STEL

Nuisance dust: Inhalable dust 10 mg/m<sup>3</sup> // Respirable dust 4 mg/m<sup>3</sup>

**8.2 Appropriate engineering controls:**

A.- Individual protection measures, such as personal protective equipment

- CONTINUED ON NEXT PAGE -



**GK4/P SACHET & MANTA**

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)**

As a preventative measure it is recommended to use basic Personal Protection Equipment. For more information on Personal Protection Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation, the information on clothing performance must be combined with professional judgment, and a clear understanding of the clothing application, to provide the best protection to the worker. All chemical protective clothing use must be based on a hazard assessment to determine the risks for exposure to chemicals and other hazards. Conduct hazard assessments in accordance with 29 CFR 1910.132.

**B.- Respiratory protection**


The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

**C.- Specific protection for the hands**

Pictogram	PPE	Remarks
 Mandatory hand protection	Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional /industrial users, we recommend using chemical protection gloves. Use gloves in accordance with manufacturer's use limitations and OSHA standard 1910.138 (29CFR)

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

**D.- Ocular and facial protection**

Pictogram	PPE	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing. Use this PPE in accordance with manufacturer's use limitations and OSHA standard 1910.133 (29CFR)

**E.- Bodily protection**

Pictogram	PPE	Remarks
	Work clothing	Replace before any evidence of deterioration.
	Anti-slip work shoes	Replace before any evidence of deterioration.

**F.- Additional emergency measures**

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

In the case that the product of brownish stains on surfaces cleaned with a solution of 6 parts by weight water , 1 part of hydrogen peroxide (33% vol) and 2 parts vinegar (for food use ).

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**National volatile organic compound emission standards (40 CFR Part 59):**

- V.O.C. (Subpart C - Consumer): 0 % weight
- V.O.C. (Coatings) at 68 °F: 0 kg/m<sup>3</sup> (0 g/L)

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic physical and chemical properties:**

For complete information see the product datasheet.

\*Not relevant due to the nature of the product, not providing information property of its hazards.

- CONTINUED ON NEXT PAGE -



**GK4/P SACHET & MANTA**

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)**

**Appearance:**

Physical state at 68 °F:	Solid
Appearance:	Pellets
Color:	 Violet
Odor:	Characteristic
Odour threshold:	Non-applicable *

**Volatility:**

Boiling point at atmospheric pressure:	Non-applicable *
Vapour pressure at 68 °F:	Non-applicable *
Vapour pressure at 122 °F:	Non-applicable *
Evaporation rate at 68 °F:	Non-applicable *

**Product description:**

Density at 68 °F:	Non-applicable *
Relative density at 68 °F:	Non-applicable *
Dynamic viscosity at 68 °F:	Non-applicable *
Kinematic viscosity at 68 °F:	Non-applicable *
Kinematic viscosity at 104 °F:	Non-applicable *
Concentration:	Non-applicable *
pH:	Non-applicable *
Vapour density at 68 °F:	Non-applicable *
Partition coefficient n-octanol/water 68 °F:	Non-applicable *
Solubility in water at 68 °F:	
Solubility properties:	Soluble with difficulty
Decomposition temperature:	ca. 243 - 325 °F
Melting point/freezing point:	~2372 °F
Explosive properties:	Non-applicable *
Oxidising properties:	Non-applicable *

**Flammability:**

Flash Point:	Non-applicable
Heat of combustion:	Non-applicable *
Flammability (solid, gas):	Non-applicable *
Autoignition temperature:	Non-applicable *
Lower flammability limit:	>1300 % Volume
Upper flammability limit:	<1500 % Volume

**Explosive:**

Lower explosive limit:	Non-applicable *
Upper explosive limit:	Non-applicable *

**9.2 Other information:**

Surface tension at 68 °F:	Non-applicable *
Refraction index:	Non-applicable *

\*Not relevant due to the nature of the product, not providing information property of its hazards.

**SECTION 10: STABILITY AND REACTIVITY**

**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

- CONTINUED ON NEXT PAGE -



## GK4/P SACHET & MANTA

### SECTION 10: STABILITY AND REACTIVITY (continued)

#### 10.2 Chemical stability:

Chemically stable under the conditions of storage, handling and use.

#### 10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

#### 10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

#### 10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Precaution	Precaution	Avoid alkalis or strong bases

#### 10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

### SECTION 11: TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

##### Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than recommended by the occupational exposure limits, it may result in adverse effects on health depending on the means of exposure:

##### A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

##### B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

##### C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.

##### D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for the effects mentioned. For more information see section 3.  
IARC: Zeolites (3)
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

##### E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous with sensitising effects. For more information see section 3.
- Cutaneous: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

##### F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

- CONTINUED ON NEXT PAGE -



## GK4/P SACHET & MANTA

### SECTION 11: TOXICOLOGICAL INFORMATION (continued)

#### G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met, however it does contain substances classified as dangerous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as dangerous for this effect. For more information see section 3.

#### Other information:

Non-applicable

#### Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
Potassium permanganate	LD50 oral	750 mg/kg	Rat
CAS: 7722-64-7	LD50 dermal	Non-applicable	
	LC50 inhalation	Non-applicable	

### SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

#### 12.1 Ecotoxicity (aquatic and terrestrial, where available):

Identification	Acute toxicity		Species	Genus
Potassium permanganate	LC50	0.47 mg/L (96 h)	Poecilia reticulata	Fish
CAS: 7722-64-7	EC50	0.06 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	0.43 mg/L (72 h)	Desmodesmus subspicatus	Algae

#### 12.2 Persistence and degradability:

The granulated one is in a counterfoil polimerica of Tyvek's materials/PE-PS, that is resistant to the water and avoid that the product does not have to be considered " Toxic for the aquatic organisms, with harmful lasting effects ". If the sachet was breaking then the product has to be considered " Toxic for the aquatic organisms, with harmful lasting effects ".

#### 12.3 Bioaccumulative potential:

#### 12.4 Mobility in soil:

#### 12.5 Results of PBT and vPvB assessment:

Non-applicable

#### 12.6 Other adverse effects:

The granulated one is in a counterfoil polimerica of Tyvek's materials/PE-PS, that is resistant to the water and avoid that the product does not have to be considered " Toxic for the aquatic organisms, with harmful lasting effects ". If the sachet was breaking then the product has to be considered " Toxic for the aquatic organisms, with harmful lasting effects ".

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1 Disposal methods:

##### Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations. In case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. We do not recommended disposal down the drain. See epigraph 6.2.

##### Regulations related to waste management:

Legislation related to waste management:

40 CFR Part 261- IDENTIFICATION AND LISTING OF HAZARDOUS WASTE

### SECTION 14: TRANSPORT INFORMATION

This product is not regulated for transport.

- CONTINUED ON NEXT PAGE -



## GK4/P SACHET & MANTA

### SECTION 15: REGULATORY INFORMATION

#### 15.1 Safety, health and environmental regulations specific for the product in question:

SARA Title III - Toxic Chemical Release Inventory Reporting (Section 313): Potassium permanganate  
California Proposition 65 (the Safe Drinking Water and Toxic Enforcement Act of 1986): Non-applicable  
The Toxic Substances Control Act (TSCA) : Water ; Potassium permanganate ; Sepiolite ; Dolomite ; Bentonite  
Massachusetts RTK - Substance List: Potassium permanganate  
New Jersey Worker and Community Right-to-Know Act: Potassium permanganate  
New York RTK - Substance list: Potassium permanganate  
Pennsylvania Worker and Community Right-to-Know Law: Potassium permanganate  
CANADA-Domestic Substances List (DSL): Water ; Potassium permanganate ; Bentonite  
CANADA-Non-Domestic Substances List (NDSL): Sepiolite ; Dolomite  
NTP (National Toxicology Program): Non-applicable  
Minnesota - Hazardous substances ERTK: Potassium permanganate  
Rhode Island - Hazardous substances RTK: Potassium permanganate  
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1096): Non-applicable  
Hazardous Air Pollutants (Clean Air Act): Potassium permanganate  
Hazardous substances release notification under CERCLA sections 102-103 (40 CFR Part 302): Potassium permanganate (100 pounds)

#### Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as data used in a risk evaluation of the local circumstances in order to establish the necessary risk prevention measures for the manipulation, use, storage and disposal of this product.

#### Other legislation:

Take into consideration other applicable federal, state, and local laws and local regulations.

### SECTION 16: OTHER INFORMATION

#### Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with Appendix d to §1910.1200 - Safety data sheets

#### Advice related to training:

Minimal training is recommended to prevent industrial risks for staff using this product, in order to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

#### Principal bibliographical sources:

Occupational Safety & Health Administration (OSHA).

#### Abbreviations and acronyms:

IMDG: International maritime dangerous goods code  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organisation  
COD: Chemical Oxygen Demand  
BOD5: 5-day biochemical oxygen demand  
BCF: Bioconcentration factor  
LD50: Lethal Dose 50  
CL50: Lethal Concentration 50  
EC50: Effective concentration 50  
Log-POW: Octanol-water partition coefficient  
Koc: Partition coefficient of organic carbon

#### Other information:

In the case that the product of brownish stains on surfaces cleaned with a solution of 6 parts by weight water , 1 part of hydrogen peroxide (33% vol) and 2 parts vinegar (for food use ).

Manufacturer Disclaimer: The information contained in this safety data sheet ("SDS") is based on sources, technical knowledge and current legislation. Furthermore, is based on data believed to be accurate; thus, the company does not assume any liability for its accuracy. The information provided herein cannot be considered a guarantee of the properties of this product and the same is simply a description of the security requirements. The use, occupational methodology and/or conditions for users of this product are not within our awareness or control. It is ultimately the responsibility of the user(s) to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information of this SDS only refers to this product, which should not be used for purposes other than those specified. Finally, the manner in which this product is used and whether there is any infringement of patents is the sole responsibility of the user(s).

END OF SAFETY DATA SHEET