## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Trade name: Spezial Rasensand**
**UFI:** 2K20-J0QA-P007-PACP

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

**Application of the substance / the mixture** Fertiliser

### 1.3 Details of the supplier of the safety data sheet

**Manufacturer/Supplier:**
**Rasendoktor c/o Turf Handels GmbH**
Am Hartboden 48
8101 Gratkorn
Austria
T: +43 3124 29064

**Further information obtainable from:** office@rasendoktor.at

### 1.4 Emergency telephone number:

+43 3124 29064
Available during office hours:
Mo - Th: 8 a.m. - 4.30 p.m.
Fr: 8 a.m. - 2.30 p.m.

**Call the national emergency number!**

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008**

Acute Tox. 4 H302 Harmful if swallowed.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
**Additional information:** For the wording of the hazard categories, see section 16.

### 2.2 Label elements

**Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
**Hazard pictograms**

GHS07

**Signal word** Warning

**Hazard-determining components of labelling:**
ferrous sulfate heptahydrate

(Contd. on page 2)

(Contd. of page 1)

**Hazard statements**
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
**Precautionary statements**

| | |
|---|---|
| P101 | If medical advice is needed, have product container or label at hand. |
| P102 | Keep out of reach of children. |
| P264 | Wash thoroughly after handling. |
| P270 | Do not eat, drink or smoke when using this product. |
| P280 | Wear protective gloves / eye protection. |
| P302+P352 | IF ON SKIN: Wash with plenty of soap and 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. |
| P337+P313 | If eye irritation persists: Get medical advice/attention. |
| P501 | Dispose of contents/container in accordance with local/regional/national/international regulations. |

**2.3 Other hazards**
**Results of PBT and vPvB assessment**
**PBT:** The mixture does not contain PBT substances ≥ 0,1 %.
**vPvB:** The mixture does not contain vPvB substances ≥ 0,1 %.
**Determination of endocrine-disrupting properties**
The product does not contain substances with endocrine-disrupting properties ≥ 0.1 %(w/w).

## SECTION 3: Composition/information on ingredients

**3.2 Mixtures**
**Description:** Mixture of substances listed below with nonhazardous additions.

**Dangerous components:**
[% (w/w)]

| | | |
|---|---|---|
| CAS: 7782-63-0<br>EINECS: 231-753-5<br>Index number: 026-003-01-4 | ferrous sulfate heptahydrate<br>Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319<br>Specific concentration limit: Skin Irrit. 2; H315: C ≥ 25 % | 35 – 40% |

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

**4.1 Description of first aid measures**
**General information:**
In case of discomfort or doubt, seek medical advice.
If unconscious, use a stable lateral position and do not administer anything through mouth.
**After inhalation:** Supply fresh air; consult doctor in case of complaints.
**After skin contact:**
Wash with plenty of soap and water.
Take off contaminated clothing.
Seek medical treatment.

(Contd. on page 3)

(Contd. of page 2)

**After eye contact:**
Rinse opened eye for several minutes under running water.
Remove contact lenses, if present and easy to do. Continue rinsing.
Seek medical treatment.
**After swallowing:**
Rinse mouth.
Do NOT induce vomiting.
If the patient is conscious, make him drink water.
Call a doctor immediately.
**4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
**4.3 Indication of any immediate medical attention and special treatment needed**
Depending on the condition of the patients, the doctor must assess the symptoms and the overall general condition.

## SECTION 5: Firefighting measures

**5.1 Extinguishing media**
**Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
**For safety reasons unsuitable extinguishing agents:** Water with full jet
**5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
$CO_x$, $SO_x$, $NO_x$
**5.3 Advice for firefighters**
**Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
**Additional information**
Precipitate dust with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures**
Restricted access to the affected area until cleaning work is completed.
Wear protective equipment. Keep unprotected persons away.
Ensure adequate ventilation
Avoid contact with skin and eyes.
Avoid formation of dust.
Avoid breathing dust.
**6.2 Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
**6.3 Methods and material for containment and cleaning up:**
Pick up mechanically.
Avoid formation of dust.
Dispose of the material collected according to regulations.
Ensure adequate ventilation.

(Contd. on page 4)

(Contd. of page 3)

**6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling**
Ensure adequate ventilation.
Keep receptacles tightly sealed.
Avoid contact with skin and eyes.
Prevent formation of dust.
Avoid breathing dust.
Use personal protective equipment as required.
Observe protective measures and safety instructions.
**Information about fire - and explosion protection:**
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Dust can combine with air to form an explosive mixture.

**7.2 Conditions for safe storage, including any incompatibilities**
**Storage:**
**Requirements to be met by storerooms and receptacles:**
Store in a dry, cool, well-ventilated area.
Store in accordance with local/regional/national/international regulations.
**Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from feeding stuff.
Store away from incompatible materials.
**Further information about storage conditions:**
Keep container tightly sealed.
Protect from moisture.
Protect from heat and direct sunlight.
Protect from exposure to the light.
**Recommended storage temperature:** room temperature
**Storage class:** 11
**7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

**8.1 Control parameters**

| **Ingredients with limit values that require monitoring at the workplace:** | |
|---|---|
| **CAS: 7782-63-0 ferrous sulfate heptahydrate** | |
| LEP (Spain) | Long-term value: 1 mg/m³<br>c, como Fe |
| WEL (Great Britain) | Short-term value: 2 mg/m³<br>Long-term value: 1 mg/m³<br>as Fe |

(Contd. on page 5)

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**Regulatory information**
LEP (Spain): Límites de exposición profesional para agentes químicos
WEL (Great Britain): EH40/2020

| **DNELs** | | |
|---|---|---|
| **CAS: 7782-63-0 ferrous sulfate heptahydrate** | | |
| Oral | Long-term exposure - systemic effects | 0.28 mg/kg bw/d (consumer) |
| | short-term exposure - systemic effects | 20 mg/kg bw (consumer) |
| Dermal | Long-term exposure - systemic effects | 1.4 mg/kg bw/d (consumer) |
| | | 2.8 mg/kg bw/d (workers) |

**PNECs** No data available.
**Regulatory information**
**Additional Occupational Exposure Limit Values for possible hazards during processing:**
The national dust limits must be observed in the event of dust generation.
**Additional information:** The lists valid during the making were used as basis.

**8.2 Exposure controls**
**Appropriate engineering controls**
No further data; see section 7.
Technical measures and the use of suitable working methods take priority over the use of personal protective equipment.
**Individual protection measures, such as personal protective equipment**
**General protective and hygienic measures:**
The usual precautionary measures are to be adhered to when handling chemicals.
Keep away from foodstuffs, beverages and feed.
Do not eat or drink while working.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Take off contaminated clothing and wash it before reuse.
Prevent formation of dust.
Avoid breathing dust.
Ensure adequate ventilation.

Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of the hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the respective supplier.
**Respiratory protection:**

Wear dust mask during formation of dust.

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**Hand protection**

Protective gloves

EN 374

The glove material has to be impermeable and resistant to the product/ the substance/ the mixture.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

**Material of gloves**

Nitrile rubber gloves; recommended material thickness: 0.35 mm, penetration time: ≥480 min

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**Eye/face protection**

Tightly sealed goggles

EN 166

**Body protection:** Protective work clothing

**Environmental exposure controls** Do not allow to enter sewers/ surface or ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| **General Information** | |
| **Physical state** | Solid |
| **Colour:** | multi-colored |
| **Odour:** | Slight ammonia odor. |
| **Odour threshold:** | No information available. |
| **Melting point/freezing point:** | No information available. |
| **Boiling point or initial boiling point and boiling range** | No information available. |
| **Flammability** | Not flammable. |
| **Lower and upper explosion limit** | |
| **Lower:** | No information available. |
| **Upper:** | No information available. |
| **Flash point:** | Not applicable. |
| **Decomposition temperature:** | No information available. |

(Contd. on page 7)

(Contd. of page 6)

| | |
|---|---|
| **pH** | Not applicable. |
| **Viscosity:** | |
| **Kinematic viscosity** | Not applicable. |
| **Dynamic:** | Not applicable. |
| **Solubility** | |
| **water:** | No information available. |
| **Partition coefficient n-octanol/water (log value)** | Not determined. |
| **Vapour pressure:** | Not applicable. |
| **Density and/or relative density** | |
| **Density:** | No information available. |
| **Vapour density** | Not applicable. |
| **Particle characteristics** | See section 3. |

**9.2 Other information**

| | |
|---|---|
| **Appearance:** | |
| **Form:** | Granulate |
| **Important information on protection of health and environment, and on safety.** | |
| **Ignition temperature:** | Product is not selfigniting. |
| **Explosive properties:** | No information available. |
| **Change in condition** | |
| **Oxidising properties** | No information available. |
| **Evaporation rate** | Not applicable. |

**Information with regard to physical hazard classes**

| | |
|---|---|
| **Explosives** | void |
| **Flammable gases** | void |
| **Aerosols** | void |
| **Oxidising gases** | void |
| **Gases under pressure** | void |
| **Flammable liquids** | void |
| **Flammable solids** | void |
| **Self-reactive substances and mixtures** | void |
| **Pyrophoric liquids** | void |
| **Pyrophoric solids** | void |
| **Self-heating substances and mixtures** | void |
| **Substances and mixtures, which emit flammable gases in contact with water** | void |
| **Oxidising liquids** | void |
| **Oxidising solids** | void |
| **Organic peroxides** | void |
| **Corrosive to metals** | void |
| **Desensitised explosives** | void |

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## SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.
**10.2 Chemical stability** No decomposition if used and stored according to specifications.
**10.3 Possibility of hazardous reactions** No further relevant information available.
**10.4 Conditions to avoid**
Protect from heat and direct sunlight.
Protect from exposure to the light.
Protect from moisture.
**10.5 Incompatible materials:**
strong oxidizing agents
strong reducing agents
strong acids
Strong alkalis.
**10.6 Hazardous decomposition products:**
No decomposition if used and stored according to specifications.

## SECTION 11: Toxicological information

**11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
**Acute toxicity** Harmful if swallowed.

| **LD/LC50 values relevant for classification:** | | |
|---|---|---|
| **ATE (Acute Toxicity Estimates)** | | |
| Oral | LD50 | 1,250 – 1,429 mg/kg (rat) |

| **CAS: 7782-63-0 ferrous sulfate heptahydrate** | | |
|---|---|---|
| Oral | LD50 | 500 mg/kg (rat) |
| Dermal | LD50 | > 2,000 mg/kg (rat) |

**Primary irritant effect:**
**Skin corrosion/irritation** Causes skin irritation.
**Serious eye damage/irritation** Causes serious eye irritation.
**Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
**Germ cell mutagenicity** Based on available data, the classification criteria are not met.
**Carcinogenicity** Based on available data, the classification criteria are not met.
**Reproductive toxicity** Based on available data, the classification criteria are not met.
**STOT-single exposure** Based on available data, the classification criteria are not met.
**STOT-repeated exposure** Based on available data, the classification criteria are not met.
**Aspiration hazard** Based on available data, the classification criteria are not met.
**11.2 Information on other hazards**

| **Endocrine disrupting properties** |
|---|
| None of the ingredients is listed. |

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## SECTION 12: Ecological information

**12.1 Toxicity**
**Aquatic toxicity:** No further relevant information available.
**12.2 Persistence and degradability** No further relevant information available.
**12.3 Bioaccumulative potential** Bioaccumulation is not expected.
**12.4 Mobility in soil** No further relevant information available.
**12.5 Results of PBT and vPvB assessment**
**PBT:** The mixture does not contain PBT substances ≥ 0,1 %.
**vPvB:** The mixture does not contain vPvB substances ≥ 0,1 %.
**12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
**12.7 Other adverse effects**
**Other information:**
May release ammonium ions that are toxic to fish. Unionized ammonia concentrations > 0.02 mg/l are considered toxic in fresh water.
May release phosphates which will result in algae growth, increased turbidity, and depleted oxygen. At extremely high concentrations, this may be hazardous to fish or other marine organisms. Release to watercourses may cause effects downstream.
**Additional ecological information:**
**General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow product to reach ground water, water course or sewage system.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**
**Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Only dispose of product residues via authorised companies according to local legislation.
**European waste catalogue**
Notes: The European Waste Catalogue (EWC) classifies waste materials and categorises them according to what they are and how they were produced. This may cause other classifications. The final decision belongs to the last user.

| | |
|---|---|
| 02 01 08* | agrochemical waste containing hazardous substances |
| HP4 | Irritant - skin irritation and eye damage |
| HP6 | Acute Toxicity |

**Uncleaned packaging:**
**Recommendation:**
Dispose of packaging according to regulations on the disposal of packagings.
Packagings that may not be cleansed are to be disposed of in the same manner as the product.

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## SECTION 14: Transport information

**14.1 UN number or ID number**
**ADR/RID/ADN, IMDG, IATA** not regulated
**14.2 UN proper shipping name**
**ADR/RID/ADN, IMDG, IATA** not regulated
**14.3 Transport hazard class(es)**

**ADR/RID/ADN, ADN, IMDG, IATA**
**Class** not regulated
**14.4 Packing group**
**ADR/RID/ADN, IMDG, IATA** not regulated
**14.5 Environmental hazards:** Not applicable.
**14.6 Special precautions for user** Not applicable.
**14.7 Maritime transport in bulk according to IMO instruments** Not applicable.
**UN "Model Regulation":** not regulated

## SECTION 15: Regulatory information

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

**Directive 2012/18/EU**
**Named dangerous substances - ANNEX I** None of the ingredients is listed.

**DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

**REGULATION (EU) 2019/1148**

**Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**

None of the ingredients is listed.

**Annex II - REPORTABLE EXPLOSIVES PRECURSORS**

None of the ingredients is listed.

**Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

**Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

**National regulations:**

**Information about limitation of use:** Employment restrictions concerning juveniles must be observed.
**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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## SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
This Safety Data Sheets is in compliance with Regulation (EC) No 1907/2006, Article 31 as amended by Regulation (EU) 2020/878.

**Relevant phrases**
H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

**Training hints**
Before handling, storage or use for the first time, employees must be informed about the properties of the substance and about measures taken to ensure safety and environmental protection.

| **Classification according to Regulation (EC) No 1272/2008** | |
|---|---|
| Acute toxicity - oral<br>Skin corrosion/irritation<br>Serious eye damage/irritation | The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008. |

**Department issuing SDS:**
UmEnA GmbH
http://umena.at
Email: office@umena.at

**Abbreviations and acronyms:**
ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
ATE: Acute toxicity estimate values
Acute Tox. 4: Acute toxicity – Category 4
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2