

Chemische Fabrik Wülfel	<b>Safety Data Sheet in accordance with Regulation (EC) No 1907/2006</b>	State: 12/18/2018 Author: Splendido
	<b>Kjeldahl tablets W00</b>	Version: 2.0 Page 1 of 7

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

### 1.1. Product identifier

1.1.1. Trade name: **Kjeldahl tablets W00**

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

#### 1.2.1. Relevant identified uses

Use descriptor category:

Life cycle stage (LCS) PW: Widespread use by professional workers

Sector of use SU24: Scientific research and development (analytical chemistry)

Technical function: fine chemical

#### 1.2.2. Uses advised against

not known

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

Chemische Fabrik Wülfel GmbH & Co. KG

Hildesheimer Straße 305, D-30519 Hannover, Germany

phone number: 0049 511 98496-0,

fax number: 0049 511 98406-40

e-mail address of the person responsible for

Safety Data Sheet: [cfw@wuelfel.de](mailto:cfw@wuelfel.de)

Web: [www.wuelfel.de](http://www.wuelfel.de)

### 1.4. Emergency telephone number

00 49 511 98496-0 (Office hours:

Monday - Thursday 8 o'clock a.m. to 4 o'clock p.m.)

or

Poison control centre north (Bremen, Hamburg, Lower Saxony, Schleswig-Holstein)

Tel.: 00 49 551-19 24 0 (24h emergency call)

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

#### 2.1.1. Classification according to Regulation (EC) No 1272/2008 (CLP Regulation)

Not a hazardous substance.

### 2.2. Label elements

None.

### 2.3. Other hazards

The substance does not meet the criteria for classification as PBT or vPvB substance.

See also the sections 5, 6, 10, 11, 12,15.

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Chemical name	CAS No	EC No	REACH Registration No	% w/w	Classification according to Regulation (EC) No 1272/2008
potassium sulfate	7778-80-5	231-915-5	01-2119489441-34	100	not classified as hazardous

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### 4.1.1. General informations

Consult doctor in case of pathological signs.

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#### **4.1.2. In case of eye contact**

Rinse widely opened eye for several minutes under running water. It is advisable to use an eyewash. Remove contact lenses, if present and easy to do. Further treatment by an ophthalmologist.

#### **4.1.3. In case of skin contact**

Remove contaminated clothing immediately and wash affected areas with soap and water.

#### **4.1.4. Following ingestion**

Rinse mouth with water and call a doctor! Do not induce vomiting! Encourage to drink water in small sips (dilution effect).

#### **4.1.5. Following inhalation**

If inhaling abrasive dust remove victim to fresh air.

#### **4.1.6. Self-protection of the First Aider**

Avoid contact with substance still present.

#### **4.2. Most important symptoms and effects, both acute and delayed**

None.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

None.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media:**

water spray, foam, carbon dioxide or extinguishing powder

##### **Unsuitable extinguishing media:**

not known

#### **5.2. Special hazards arising from the substance or mixture**

In a fire corrosive sulfur oxides can be released.

#### **5.3. Advice for firefighters**

Product is non-combustible, fire-extinguishing measures are to be adapted to surrounding.

**The extinguishing water should not enter the sewage system!**

### **SECTION 6: Accidental release measures**

#### **6.1. Personal precautions, protective equipment and emergency procedures**

Avoid formation of dust. Do not eat or drink when handling Kjeldahl tablets. Always wear gloves, goggles and protective clothing.

#### **6.2. Environmental precautions**

Product should not be discharged into drains or waterways.

#### **6.3. Methods and material for containment and cleaning up**

Take up mechanically. In the post-cleaning avoid formation of dust. The spilled product should be discarded.

#### **6.4. Reference to other sections**

See sections 4, 7, 8 and 13.

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

Do not eat or drink when handling Kjeldahl tablets. Use protective gloves, goggles and protective clothing.

#### **7.2. Conditions for safe storage, including any incompatibilities**

Kjeldahl tablets should be stored dry in tightly closed containers, separate from foodstuffs, beverages and animal feedstocks.

Storage class: 13 (non-combustible solids) according to TRGS 510 (Storage of hazardous substances in nonstationary containers), Annex 4.

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### 7.3. Specific end use(s)

For determination of nitrogen by the Kjeldahl method.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### *Potassium sulfate*

General limit for dust (TRGS 900 (Technical Rules for Hazardous Substances)):

Inhalable fraction (I dust): 10 mg/m<sup>3</sup> (TWA)

Respirable fraction (R dust): 1.25 mg/m<sup>3</sup> (TWA)

<b>DNEL</b> (systemic)			
All figures are taken from REACH registration dossiers for potassium sulfate.			
Route	Substance	Worker	General population
Inhalation (Long time exposure)	potassium sulfate	37.6 mg/m <sup>3</sup>	11.1 mg/m <sup>3</sup>
Dermal (Long time exposure)	potassium sulfate	21.3 mg/kg bw/day	12.8 mg/kg bw/day
Oral (Long time exposure)	potassium sulfate	-	12.8 mg/kg bw/day

### **PNEC**

All figures are taken from REACH registration dossiers for potassium sulfate.

Substance	potassium sulfate
Freshwater	0.68 mg/l
Seawater	0.068 mg/l
Sediment (Freshwater)	not sufficiently accurate data available
Sediment (Seawater)	not sufficiently accurate data available
Soil	not sufficiently accurate data available

### 8.2. Exposure controls

Ensure good ventilation. Avoid formation of dust.

#### 8.2.1. Personal protective equipment

##### 8.2.1.1. Eye / Face protection

Safety glasses required.

##### 8.2.1.2. Respiratory protection

Required when occurrence of dusts (particle filter P2 according to DIN 3181).

##### 8.2.1.3. Skin protection

Chemical protective gloves, e.g. consisting of nitrile rubber (check for damage before use), penetration time (value for permeation: Level 6, > 480 min, EN 374)

#### 8.2.2. General health and safety measures

Avoid unnecessary contact with the product.

Wash hands after work, change contaminated clothing.

While using do not eat, drink or smoke.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Appearance: white tablets

Weight: 5.0 g

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Odour:	odourless
Odour threshold:	not applicable
pH value (20 °C):	6.48 (at 50 g/l H <sub>2</sub> O)
Melting point or melting range:	1069 °C
Initial boiling point and boiling range:	1689 °C
Flash point:	not applicable, since solid
Evaporation rate:	not determinable, since vapor pressure too low
Flammability:	not applicable, since inorganic solid
Upper/lower flammability or explosive limits:	see the comments on flammability
Vapour Pressure (20 °C):	<10 <sup>-3</sup> mbar (< 10 <sup>-1</sup> Pa)
Vapour density:	not determined, since vapor pressure too low
Density (20 °C):	2.66 g/cm <sup>3</sup>
Bulk Density (20 °C):	1240 kg/m <sup>3</sup>
Solubilities	
Solubility in water (20 °C):	111 g/l
Partition coefficient: n-octanol/water (log K <sub>ow</sub> ):	not determined, since inorganic solid
Auto-ignition temperature:	not applicable, since inorganic solid
Decomposition temperature:	not determined, no information available
Viscosity:	not applicable, since solid
Explosive properties:	not applicable, since stable inorganic solid (insensitive to heat, impact or friction, contains no chemically unstable or high energetic groups)
Oxidising properties:	not applicable, the substance contains no oxidizing acting molecule groups
<b>9.2. Other information</b>	
Other physical and chemical properties have not been determined.	

<b>SECTION 10: Stability and reactivity</b>
<b>10.1. Reactivity</b>
No specific reactivity.
<b>10.2. Chemical stability</b>
No decomposition when used and stored as intended.
<b>10.3. Possibility of hazardous reactions</b>
Not known
<b>10.4. Conditions to avoid</b>
The contact with moisture.
<b>10.5. Incompatible materials</b>
No information available.
<b>10.6. Hazardous decomposition products</b>
If the product is overheated or in a fire corrosive sulfur oxides can be released.

<b>SECTION 11: Toxicological information</b>
<b>11.1. Information on toxicological effects</b>
<b>11.1.1. Acute toxicity</b>
All figures are taken from REACH registration dossiers for potassium sulfate.
<u>Acute oral toxicity</u>
Potassium sulfate: LD <sub>50</sub> (rat) > 2000 mg/kg bw (OECD Test guideline 425)
<u>Acute dermal toxicity</u>
Potassium sulfate: LD <sub>50</sub> (rat) > 2000 mg/kg bw (OECD Test guideline 402)

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#### Acute inhalation toxicity

Potassium sulfate: LC<sub>0</sub> (rat) 3.6 mg/m<sup>3</sup>/4h (OECD Test guideline 433 draft), read across to Ammonium sulfate

#### **11.1.2. Skin corrosion/irritation**

The product is not classified as a skin irritant or as corrosive to the skin.

#### **11.1.3. Eye damage/irritation**

The product can cause eye irritations. The effect is not relevant for classification.

#### **11.1.4. Sensitisation to the respiratory tract and the skin**

Not known

#### **11.1.5. Germ cell mutagenicity**

Not known

#### **11.1.6. Carcinogenicity**

Not known

#### **11.1.7. Reproductive toxicity**

Not known

#### **11.1.8. Specific target organ toxicity (single exposure)**

Not known

#### **11.1.9. Specific target organ toxicity (repeated exposure)**

Not known

#### **11.1.10. Aspiration hazard**

Not known

### **SECTION 12: Ecological information**

#### **12.1. Toxicity**

##### **12.1.1. Acute aquatic toxicity**

All figures are taken from REACH registration dossiers for potassium sulfate.

##### **Toxicity to fish**

###### Potassium sulfate

LC<sub>50</sub> (*Pimephales promelas*, 96 h): 680 mg/l (Test guidelines EPA/600/4-90/027 and EPA/600/6-91/003)

##### **Toxicity to daphnia**

###### Potassium sulfate

EC<sub>50</sub> (*Daphnia magna*, 48 h): 720 mg/l (Test guidelines EPA/600/4-90/027 and EPA/600/6-91/003)

##### **Toxicity to algae**

###### Potassium sulfate

EC<sub>50</sub> (*Chlorella vulgaris*, 18 d): 2700 mg/l (read-across to Ammonium sulfate)

##### **12.1.2. Chronic aquatic toxicity**

Not sufficiently accurate data available in the REACH registration dossier of potassium sulfate.

#### **12.2. Persistence and degradability**

Not known

#### **12.3. Bioaccumulative potential**

Not known

#### **12.4. Mobility in soil**

Potassium sulfate has a high mobility due to its good solubility in water.

#### **12.5. Results of PBT and vPvB assessment**

Not applicable to inorganic substances.

#### **12.6. Other adverse effects**

Not known

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### **SECTION 13: Disposal considerations**

#### **13.1. Waste treatment methods**

Product residues and the packaging must be disposed in accordance with the Waste Directive 2008/98/EC and national and regional regulations.

The revised list of waste pursuant to article 7 of the Directive was published with the Commission's Decision 2014/955/EU.

#### **Product**

#### **Waste key:**

06 03 14 (solid salts and solutions not containing cyanides or heavy metals)

#### **Packaging**

Contaminated packaging should be disposed of like the product.

### **SECTION 14: Transport information**

Not hazardous substance according to the national and international dangerous goods regulations.

### **SECTION 15: Regulatory information**

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

##### **15.1.1. EU regulations**

#### **Safety Data Sheet:**

Regulation (EC) No 1907/2006 (REACH), Annex II (SDS) amended by Regulation (EU) 2015/830.

#### **Classification and labelling:**

Regulation (EC) No 1272/2008 (CLP (EU-GHS) Regulation)

##### **15.1.2. Basic national regulations (Germany)**

Act for the protection of young people at work (JArbSchG)

Observe employment restrictions according to § 22 for teens.

Act for the protection of mothers at work, in education and in study (MuSchG)

Inadmissible activities and working conditions according to §§ 11 and 12 MuSchG for expectant and nursing mothers.

Act on protection against hazardous substances (Chemicals Act (ChemG))

Regulation on protection against hazardous substances (Hazardous Substances Regulation (GefStoffV))

Regulation on bans and restrictions on the marketing and delivery of certain substances, mixtures and products pursuant to the Chemicals Act (ChemVerbotsV)

Ordinance on facilities for handling substances that are hazardous to water (AwSV) of 18 April 2017.

Potassium sulfate (identification number: 255, see database Rigoletto): Water hazard class (WGK): 1 (slightly hazardous to water)

The same classification applies to the Kjeldahl tablets W00.

Water hazard class (WGK) of Kjeldahl tablets W00: 1 (slightly hazardous to water)

##### **15.2. Chemical Safety Assessment**

For this product a chemical safety assessment was not created.

### **SECTION 16: Other information**

#### **16.1. Indication of changes**

Subsection 9.1. - Update

Subsection 11.1.1. - Update

Subsection 12.1.2. - Update

Subsection 16.2. - Update

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## 16.2. Literature and sources

### Directives and Regulations

REACH Regulation (EC) No 1907/2006 as last amended by Regulation (EU) 2018/2005.  
CLP (EU-GHS) Regulation (EC) No 1272/2008, as last amended by Regulation (EU) 2018/1480.

### REACH registration dossiers

Potassium sulfate (REACH Registration No 01-2119489441-34)

### 16.3. Abbreviations and acronyms

bw	body weight
CAS	Chemical Abstracts Service
CLP	Classification, Labelling, Packaging
DIN	German Institute for Standardization Incorporated Society - Deutsches Institut für Normung e. V.
DNEL	Derived No Effect Level
dw	dry weight
EC	European Community
EC	Effective Concentration
ECHA	European Chemicals Agency
EPA	Environmental Protection Agency
EU	European Union
GHS	Globally Harmonized System of Classification, Labelling and Packaging of Chemicals
LC	Lethal Concentration
LD	Lethal Dose
NOEC	No Observed Effect level Concentration
PBT	Persistent, Bioaccumulative, Toxic
PNEC	Predicted No Effect Concentration
REACH	Regulation, Evaluation and Authorization of Chemicals
TRGS	Technical Rules for Hazardous Substances
vPvB	very persistent and very bioaccumulative

### 16.4. Further information

This information is based on our present knowledge, they do not constitute an assurance of product properties and establishes no contract legal rights.