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SECTION 1: Identification of the substance/mixture and of the company /undertaking 1.1. Product identifier 1.1.1. Trade name Kjeldahl tablets W24 according to Wieninger Kjeldahl tablets W25 according to Wieninger Kjeldahl tablets W26 according to Wieninger 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 chemistrv) 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 Web: www.wuelfel.de 1.4. Emergency telephone number 00 49 511 98496-0 (Office hours: Monday - Thursday 8 o'clock a.m. to 2 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) Aquatic Chronic 2; H411 2.2. Label elements 2.2.1. Labelling according to Regulation (EC) No 1272/2008 (CLP Regulation) GHS09 No Signal word Hazard statements H411 Toxic to aquatic life with long lasting effects. **Precautionary statements Prevention:**

P273 Avoid release to the environment.

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Reaction:

P391 Collect spillage.

Disposal:

P501 Dispose of contents/container to local waste disposal company or the manufacturer.

2.3. Other hazards

The mixture does not meet the criteria for classification as PBT or vPvB substance. The substances in the mixture were not included in the list established in accordance with article 59(1) for having endocrine disrupting properties. The substances are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. See also the sections 5, 6, 10, 11, 12, 15.

SECTION 3: Composition/information on ingredients

3.1. Substances

The product is a mixture.

3.2. Mixtures

A mixture of sodium sulfate and small amounts of copper (II) sulfate (water-free) and selenium.

| Chemical name | CAS No | EC No | REACH Registration No | % w/w | Classification according to Regulation (EC) No 1272/2008 |
|----------------------------------|-----------|-----------|-----------------------------|-------|---|
| sodium sulfate, water-free | 7757-82-6 | 231-820-9 | 01-2119519226-43 | 96.25 | not classified as hazardous |

3.2.1. Hazardous ingredients

| Chemical name | CAS No | EC No | REACH Registration No | % w/w | Harmonized classification according to Regulation (EC) No 1272/2008 (Table 3 of Annex VI) ¹⁾ |
|---------------------------------------|-----------|-----------|-----------------------------|-------|--|
| copper (II) sulfate, water-free | 7758-98-7 | 231-847-6 | 01-2119520566-40 | 1.50 | Acute Tox.4 [*] ; H302 Eye Irrit. 2; H319 Skin Irrit. 2; H315 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 * Minimum classification |
| selenium | 7782-49-2 | 231-957-4 | 01-2119981706-25 | 1.50 | Acute Tox 3*; H301 Acute Tox 3*; H331 STOT RE 2*; H373** Aquatic Chronic 4; H413 * Minimum classification ²⁾ ** No indication of the exposure pathway |

2) According to the available toxicological data (see section 11), the stated minimum classification is incorrect. After that, H301, H331 and H373 can be omitted (see the section entitled "Justification for classification or non-classification" in the REACH Dossier of Selenium).

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3.3. Additional information

The text of H-Statements is given in section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

4.1.1. General informations

Consult doctor in case of pathological signs.

4.1.2. In case of eye contact

Rinse widely opened eye for several minutes (at least 10 min) under running water. Remove contact lenses. It is advisable to use an eyewash. 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

Vomiting, irritation of the respiratory tract.

4.3. Indication of any immediate medical attention and special treatment needed Notify a contact with water-soluble copper compounds.

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 and hazardous vapors of metal 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, fill in corrosion-resistant containers and then dispose of it.

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.

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| Kjeldahl tablets should be stored dry in tightly closed containers, separate from foodstuffs, | | | | | | | |
|--|---|---|---|--|--|--|--|
| everages and animal | | | Newson of borowdouro | | | | |
| Storage class: 13 (non-combustible solids) according to TRGS 510 (Storage of hazardous substances in nonstationary containers), Annex 4. | | | | | | | |
| .3. Specific end use | | ICX 4. | | | | | |
| | trogen by the Kjeldahl | method | | | | | |
| | | | | | | | |
| | e controls/personal p | protection | | | | | |
| .1. Control paramete | ers | | | | | | |
| Sodium sulfate: | | | | | | | |
| | | Rules for Hazardous Su | ostances)): | | | | |
| halable fraction (I due | | | | | | | |
| | dust): 1.25 mg/m³ (TW | A) | | | | | |
| Copper and its inorgan | | ha na minala la f ua atian) ia | | | | | |
| | | the respirable fraction) is | | | | | |
| | man Research Found | ation (DFG). The MAK v | alue has no legal | | | | |
| inding. | | | | | | | |
| Selenium: | · ···································· | ion (Eveneding forton 1 | (11) | | | | |
| () | 0 | ion (Exceeding factor: 1 | (II) with (II) for | | | | |
| esorptive substances) | | | | | | | |
| Selenium and its inorg | • | | | | | | |
| · · · · | µg selenium/l (Specim | en. serunn) | | | | | |
| DNEL (systemic) All figures are taken from sulfate | m REACH registration do | ossiers for sodium sulfate, | selenium and copper | | | | |
| Route | Substance | Worker | General population | | | | |
| Inhalation | sodium sulfate | 20 mg/m ³ | 12 mg/m ³ | | | | |
| | | | | | | | |
| | selenium | 0.5 mg/m ³ | | | | | |
| (Long term exposure | copper in dust form | 0.5 mg/m ³ | 0.015 mg/m ³ no hazard identified | | | | |
| | | | 0.015 mg/m ³ | | | | |
| | copper in dust form | 1 mg/m ³ 0.1 mg/m ³ | 0.015 mg/m ³ | | | | |
| (Long term exposure | copper in dust form copper in fume form | 1 mg/m ³ 0.1 mg/m ³ no hazaro 7 mg/kg bw/day | 0.015 mg/m ³ no hazard identified identified 4.3 mg/kg bw/day | | | | |
| (Long term exposure Dermal | copper in dust form copper in fume form sodium sulfate | 1 mg/m ³ 0.1 mg/m ³ no hazaro | 0.015 mg/m ³ no hazard identified I identified | | | | |
| (Long term exposure Dermal (Long term exposure) | copper in dust form copper in fume form sodium sulfate selenium copper (dry) and copper compounds | 1 mg/m ³ 0.1 mg/m ³ no hazaro 7 mg/kg bw/day 137 mg/kg bw/day | 0.015 mg/m ³ no hazard identified identified 4.3 mg/kg bw/day no hazard identified | | | | |
| (Long term exposure Dermal (Long term exposure) Oral | copper in dust form copper in fume form sodium sulfate selenium copper (dry) and copper compounds sodium sulfate | 1 mg/m ³ 0.1 mg/m ³ no hazaro 7 mg/kg bw/day 137 mg/kg bw/day | 0.015 mg/m ³ no hazard identified identified 4.3 mg/kg bw/day no hazard identified | | | | |
| (Long term exposure Dermal (Long term exposure) | copper in dust form copper in fume form sodium sulfate selenium copper (dry) and copper compounds sodium sulfate selenium | 1 mg/m ³ 0.1 mg/m ³ no hazaro 7 mg/kg bw/day 137 mg/kg bw/day no hazaro - | 0.015 mg/m ³ no hazard identified identified 4.3 mg/kg bw/day no hazard identified identified 4.3 µg/kg bw/day | | | | |
| (Long term exposure Dermal (Long term exposure) Oral | copper in dust form copper in fume form sodium sulfate selenium copper (dry) and copper compounds sodium sulfate selenium copper in dissolved | 1 mg/m ³ 0.1 mg/m ³ no hazaro 7 mg/kg bw/day 137 mg/kg bw/day | 0.015 mg/m ³ no hazard identified identified 4.3 mg/kg bw/day no hazard identified | | | | |
| (Long term exposure Dermal (Long term exposure) Oral | copper in dust form copper in fume form sodium sulfate selenium copper (dry) and copper compounds sodium sulfate selenium | 1 mg/m ³ 0.1 mg/m ³ no hazaro 7 mg/kg bw/day 137 mg/kg bw/day no hazaro - | 0.015 mg/m ³ no hazard identified identified 4.3 mg/kg bw/day no hazard identified identified 4.3 µg/kg bw/day | | | | |
| (Long term exposure Dermal (Long term exposure) Oral | copper in dust form copper in fume form sodium sulfate selenium copper (dry) and copper compounds sodium sulfate selenium copper in dissolved | 1 mg/m ³ 0.1 mg/m ³ no hazaro 7 mg/kg bw/day 137 mg/kg bw/day no hazaro - | 0.015 mg/m ³ no hazard identified identified 4.3 mg/kg bw/day no hazard identified identified 4.3 μg/kg bw/day | | | | |

| Sullate | | | |
|--------------|------------------------|-----------------------|--------------------------|
| Substance | sodium sulfate | selenium | copper in dissolved form |
| Freshwater | 11.09 mg/l | 2.67 µg/l | 7.8 μg/l |
| Seawater | 1.109 mg/l | 2 µg/l | 5.2 µg/l |
| Sediment | 40.2 mg/kg sediment dw | 8.2 mg/kg sediment dw | 87 mg/kg sediment dw |
| (Freshwater) | | | |
| Sediment | 4.02 mg/kg sediment dw | 6.2 mg/kg sediment dw | 676 mg/kg sediment dw |
| (Seawater) | | | |
| Soil | 1.54 mg/kg soil dw | 0.1 mg/kg soil dw | 65 mg/kg soil dw |

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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

| Property Value/Description | | | |
|--|---|--|--|
| Physical state | solid (tablets) | | |
| Weight | 2.5 g (W24), 3.5 g (W25), 5 g (W26) | | |
| Colour | grey | | |
| Odour | odourless | | |
| Melting point/freezing point | not determined | | |
| Boiling point or initial boiling point and | not determined | | |
| boiling range | | | |
| Flammability | not applicable, since mixture of solids | | |
| Lower and upper explosion limit | see the comments on flammability | | |
| Flash point | not applicable, since mixture of inorganic solids | | |
| Auto-ignition temperature | not applicable, since mixture of inorganic solids | | |
| Decomposition temperature | > 560 °C (Cooper sulfate) | | |
| рН | 4.45 (at 50 g/l H₂O) at 20 °C | | |
| Kinematic viscosity | not applicable, since mixture of inorganic solids | | |
| Solubility | 410 g/I H ₂ O at 20 °C (Residue of selenium) | | |
| Partition coefficient n-octanol/water | not applicable, since mixture of inorganic solids | | |
| (log value) | | | |
| Vapour pressure | < 10 ⁻¹ Pa at 20 °C | | |
| Density and/or relative density | 2.7 g/cm ³ at 20 °C | | |
| Bulk density | 1355 kg/m ³ (2.5 g), 1280 kg/m ³ (3.5 g), | | |
| | 1265 kg/m ³ (5 g) bei 20 °C | | |
| Relativ vapour density | Not applicable, since vapour pressure too low | | |
| Particle characteristics | not relevant because pressed tablets are present | | |
| 9.2. Other information | | | |
| Other physical and chemical properties have not been determined. | | | |

SECTION 10: Stability and reactivity

10.1. Reactivity

No specific reactivity. 10.2. Chemical stability

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10.3. Possibility of hazardous reactions Not known 10.4. Conditions to avoid The contact with moisture. **10.5.** Incompatible materials Alkalis and corrosion sensitive metals. **10.6.** Hazardous decomposition products If the product is overheated or in a fire corrosive sulfur oxides and vapors of metal oxides hazardous to health can be released. **SECTION 11: Toxicological information** 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008 No toxicological data available for the mixture. For selenium generally applies: Selenium is an essential trace element for humans. See "Opinion of the Scientific Committee on Food on the Tolerable Upper Intake Level of Selenium" (SCF/CS/NUT/UPPLEV/25 Final, November 28, 2000). In elemental form, selenium is considered to be acutely relatively non-toxic, with the exception of exposure to fine dust or smoke. 11.1.1. Acute toxicity All figures are taken from REACH registration dossiers for sodium sulfate, selenium and copper sulfate. Acute oral toxicity Sodium sulfate: LD_{50} (rat) > 2000 mg/kg bw (OECD Test guideline 423) Selenium (powder form): LD_{50} (rat) > 5000 mg/kg bw (OECD Test guideline 401) Copper (II) sulfate: LD₅₀ (rat): 481 mg/kg bw (OECD Test guideline 401) Acute dermal toxicity Copper (II) sulfate: LD₅₀ (rat) > 2000 mg/kg bw (OECD Test guideline 402 and EPA OTS 789,1100) Acute inhalation toxicity Sodium sulfate: LC_{50} (rat) > 2.4 mg/l/4h (OECD Test guideline 436) Selenium powder (Aerosol): LC₅₀ (rat) > 5.67 mg/l/4h (Test guideline EPA OPP 81-3) 11.1.2. Skin corrosion/irritation The product can cause skin irritations. But the effect does not meet the criteria for classification. 11.1.3. Serious eye damage/irritation The product can cause eye irritation. 11.1.4. Respiratory or skin sensitisation 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

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| 11.2. Information on other hazards |
|--|
| There are no indications on other hazards. |
| ווופוש מוש ווועוטמנוטווס טוו טנוושו וומבמועס. |
| SECTION 12: Ecological information |
| 12.1. Toxicity |
| 12.1.1. Acute aquatic toxicity |
| All figures are taken from REACH registration dossiers for sodium sulfate, selenium and |
| copper sulfate. |
| Toxicity to fish |
| Sodium sulfate |
| LC ₅₀ (<i>Pimephales promelas,</i> 96 h): 7960 mg/l (Test guideline EPA/600/4-90/027) |
| Selenium |
| LC ₅₀ (<i>Oncorhynchus mykiss,</i> 96 h) > 100 mg selenium/l (nominal) (OECD Test guideline |
| 203) > 26.2 µg selenium/l (solved) |
| Copper sulfate |
| LC ₅₀ (Oncorhynchus mykiss, 96 h): 190 - 210 µg dissolved copper /l |
| LC ₅₀ (<i>Pimephales promelas</i> , 96 h): 390 µg dissolved copper /l |
| Toxicity to daphnia |
| Sodium sulfate |
| EC ₅₀ (<i>Daphnia magna</i> , 48 h): 4736 mg/l (Test guideline EPA/600/4-90/027) |
| Selenium |
| EC ₅₀ (<i>Daphnia magna</i> , 48 h) > 100 mg/l (nominal) (OECD Test guideline 202) |
| > 160,3 µg Selen/I (solved) |
| Copper sulfate |
| EC ₅₀ (<i>Daphnia magna</i> , 48 h): 33.8 - 792 μg/l (OECD Test guideline 202, determined in water |
| of different hardness and pH values of 6.1 and 7.35) |
| Toxicity to algae |
| Selenium |
| ECr50 (<i>Pseudokirchneriella subcapitata</i> , 72 h) > 1.73 μg selenium/l (solved) (Growth rate) |
| (OECD Test guideline 201) |
| Copper sulfate |
| ECr50 (Chlamydomonas reinhardtii, 96 h): 0.047 mg dissolved copper /I (Growth rate) |
| (OECD Test guideline 201) |
| 12.1.2. Chronic aquatic toxicity |
| All figures are taken from REACH registration dossiers for selenium and copper sulfate. |
| Selenium |
| NOEC (Oncorhynchus mykiss, 28 d) \geq 10 mg selenium/l (nominal) (OECD Test guideline |
| 215) ≥ 1.57 µg selenium/l (solved) |
| NOEC (<i>Daphnia magna</i> , 21 d) ≥ 3.42 µg selenium/l (solved) (OECD Test guideline 211) |
| NOEC (<i>Pseudokirchneriella subcapitata</i> , 72 h): 0.547 µg selenium/l (solved) (Growth rate) |
| (OECD Test guideline 201) |
| Copper sulfate |
| NOEC (<i>Chlamydomonas reinhardtii</i> , 10 d): 0.022 mg dissolved copper/l (Growth rate) |
| (OECD Test guideline 201) |
| 12.2. Persistence and degradability |
| Selenium and copper are not degraded in soil and water sediments, but are enriched by |
| adsorption. |
| 12.3. Bioaccumulative potential |
| Since copper is not biodegradable, it is accumulated in the soil. The bioconcentration factor |
| (BCF) obtained for a variety of plants is in the range of 1 and below. |

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Selenium is not biodegradable, it is accumulated in the soil.

12.4. Mobility in soil

Selenium is water-insoluble and is enriched in the soil and converted by a longer period of time due to oxidation in water-soluble selenium compounds.

Copper (II) sulfate has a high solubility in water, but it is adsorbed by the soil and it is subsequently immobilized.

12.5. Results of PBT and vPvB assessment

Not applicable to inorganic substances.

12.6. Endocrine disrupting properties

The substances in the mixture were not included in the list established in accordance with article 59(1) for having endocrine disrupting properties. The substances are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Not known

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 13* (solid salts and solutions containing heavy metals)

Packaging

Contaminated packaging should be disposed of like the product.

Waste key:

15 01 10* (packaging containing residues of or contaminated with hazardous substances)

SECTION 14: Transport information

14.1. UN number or ID number

UN3077

14.2. UN proper shipping name

ADR/RID/ADN:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE; SOLID, N.O.S., (Copper(II) sulfate) IMDG-Code:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE; SOLID, N.O.S., (Copper(II) sulfate) ICAO-TI/IATA-DGR:

Environmentally hazardous substance, solid, n.o.s., (Copper(II) sulfate)

14.3. Transport hazard class(es)

9 (Miscellaneous dangerous substances and articles, including environmentally hazardous substances)



Road or rail transport takes place in limited quantities (LQ) in accordance with Chapter 3.4 of the ADR / RID Convention (application of special provision 375).

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| | | | |
| 14.4 Packing group | | | |
| 14.4. Packing group III (Substances presenting lo | w danger) | | |
| 14.5. Environmental hazar | | | |
| Environmentally hazardous | | | |
| ADR/RID/ADN/IMDG-Code | | | |
| ICAO-TI/IATA-DGR: no | | | |
| This marking applies to all tr | ansport routes for transport in lim | nited quantitie | s (LQ). |
| 14.6. Special precautions | for user | | 、 , |
| See Sections 6 - 8 | | | |
| | bulk according to IMO instrum | nents | |
| | product and not a bulk good. | | |
| 14.8. Additional informatio | | | |
| ADR Tunnel restriction code | | | |
| The passage through all tun | nels is allowed. | | |
| SECTION 15: Regulatory in | nformation | | |
| | vironmental regulations/legisla | ation specific | c for the |
| substance or mixture | | • | |
| 15.1.1. EU regulations | | | |
| Safety Data Sheet: | | | |
| | | ended hy Re | aulation (EU) |
| Regulation (EC) No 1907/20 | 106 (REACH), Annex II (SDS) am | | guiation (EU) |
| Regulation (EC) No 1907/20 2020/878. | JU6 (REACH), Annex II (SDS) am | | guiation (EU) |
| Regulation (EC) No 1907/20 2020/878. Classification and labelling: | | | guiation (EU) |
| Regulation (EC) No 1907/20 2020/878. Classification and labelling: Regulation (EC) No 1272/20 | 006 (REACH), Annex II (SDS) am 008 (CLP (EU-GHS) Regulation) | | guiation (EU) |
| Regulation (EC) No 1907/20 2020/878. Classification and labelling: Regulation (EC) No 1272/20 Seveso III | | | guiation (EU) |
| Regulation (EC) No 1907/20 2020/878. Classification and labelling: Regulation (EC) No 1272/20 Seveso III Directive 2012/18/EU | 008 (CLP (EU-GHS) Regulation) | | |
| Regulation (EC) No 1907/20 2020/878. Classification and labelling: Regulation (EC) No 1272/20 Seveso III Directive 2012/18/EU | 008 (CLP (EU-GHS) Regulation) hl tablets W24-W26 according to | | |

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.

Sodium sulfate (identification number: 286, see database Rigoletto) - Water hazard class (WGK): 1 (slightly hazardous to water)

Selenium (identification number: 2751, see database Rigoletto) - Water hazard class: 2 (obviously hazardous to water)

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| | | . age | |
| | Kjeldahl tablets W24-W26 | | |
| | according to Wieninger | | |
| Copper sulfate (identificatio | n number: 141, see database Rigo | letto) - Wate | r hazard class |
| (WGK): 3 (highly hazardous | | | |
| | of Kjeldahl tablets W24-W26 accor | rding to Wier | ninger: 2 |
| (obviously hazardous to wa | | U | 0 |
| | f copper sulfate = 1,5%, see AwSV | /, Annex 1, s | ection 5.2.2 |
| Derivation of water hazard | | | |
| 15.2. Chemical Safety Ass | | | |
| For this product a chemical | safety assessment was not create | d. | |
| SECTION 16: Other inform | nation | | |
| 16.1. Indication of change | S | | |
| | nged office hours | | |
| Subsection 2.3 add | tion of information about endocrine | e disrupting p | roperties |
| | tion with DNEL values for copper s | | |
| Subsection 9.1 ada | ptation to Regulation (EU) 2020/87 | 8 | |
| Subsection 11.2 new | e () | | |
| Subsection 12.6 new | | | |
| Subsection 13.1 Was | ste key marked with an asterisk | | |
| Subsection 15.1.1 upda | • | | |
| Subsection 16.3 upd | | | |
| 16.2. Codes of the hazard | classes and the hazard categori | es | |
| a) Hazard classes and ha | zard categories in subsection 2.1 | l.1. | |
| Áquatic Chronic 2 - Hazard | ous to the aquatic environment, ch | ronic, catego | ory 2 |
| | ording to Regulation (EC) No 12 | | |
| specified in section 3 | | - | |
| H400 - Very toxic to aquation | c life. | | |
| H410 - Very toxic to aquation | life with long lasting effects. | | |
| H301 - Toxic if swallowed. | | | |
| H302 - Harmful if swallowed | d. | | |
| H319 - Causes serious eye | irritation. | | |
| H315 - Causes skin irritatio | n. | | |
| H331 - Toxic if inhaled. | | | |
| H373 - May cause damage | to organs through prolonged or rej | peated expos | sure. |
| H413 - May cause long last | ing harmful effects to aquatic life. | | |
| 16.3. Literature and sourc | es | | |
| Directives and Regulation | | | |
| | 006 (REACH), was last amended b | | |
| | (EC) No 1272/2008, was last amer | nded by Reg | ulation (EU) |
| 2021/1962 | | | |
| Directive 2012/18/EU (Seve | eso III). | | |
| - | | | |
| Copper compounds | | | (0000) |
| | ew of copper compounds, EFSA S | cientific Rep | ort (2008) |

Copper (II) sulfate ((REACH Registration No 01-2119520566-40)

Selenium (REACH Registration No 01-2119981706-25)

Sodium sulfate (REACH Registration No 01-2119519226-43)

16.4. Methods in accordance with Chapter 2, Article 9 of Regulation (EC) No 1272/2008 for assessing the information that has been used for the purpose of classification

Aquatic toxicity: Use of table 4.1.2 of Part I of Annex 4 of Regulation (EC) No 1272/2008.

| Chemische Fabrik Wülfel | Safety Data Sheet in accordance with Regulation (EC) No 1907/2006 | State: Author: Version: | 03/01/2022 U. Köhler/Spl 3.0 |
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| | Kjeldahl tablets W24-W26 according to Wieninger | | |

| 16.5. Abbrev | riations and acronyms |
|-----------------|---|
| ADN | Accord européen relatif au transport international des marchandises |
| | dangereuses par voie de navigation intérieure - European Agreement |
| | concerning the International Carriage of Dangerous Goods by Inland |
| | Waterways |
| ADR | Accord européen relatif au transport international des marchandises |
| | Dangereuses par Route - European arrangements about the international |
| | transport of dangerous goods on the streets. |
| bw | body weight |
| CAS | Chemical Abstracts Service |
| CLP | Classification, Labelling, Packaging |
| DFG | German Research Foundation – Deutsche Forschungsgemeinschaft |
| DIN | German Institute for Standardization Incorporated Society – |
| | Deutsche Institut für Normung e. V. |
| DNEL | Derived No Effect Level |
| dw | dry weight |
| EC | European Community |
| EC | Effective Concentration |
| EC ^r | Effective Concentration (Growth rate) |
| ECHA | European Chemicals Agency |
| EFSA | European Food Safety Authority |
| EN | European Standards |
| EPA | Environmental Protection Agency |
| EU | European Union |
| GHS | Globally Harmonized System of Classification, Labelling and Packaging of |
| 0113 | Chemicals |
| IATA-DGR | International Air Transport Association-Dangerous Goods Regulation |
| ICAO-TI | International Civil Aviation Organization - Technical Instructions |
| IMDG-Code | International Maritime Code for Dangerous Goods |
| IMO | International Maritime Organization |
| LC | Lethal Concentration |
| LD | Lethal Dose |
| MAK | Maximum Workplace Concentration - Maximale Arbeitsplatzkonzentration |
| NOEC | No Observed Effect level Concentration |
| |) Not otherwise specified |
| 0ECD | Organisation for Economic Co-operation and Development (Organisation de |
| OECD | coopération et de développement économiques, OCDE) |
| РВТ | Persistent, Bioaccumulative, Toxic |
| PNEC | Predicted No Effect Concentration |
| REACH | Regulation, Evaluation and Authorization of Chemicals |
| RID | Règlement concernant le transport International ferroviaire de |
| RID | |
| | marchandises Dangereuses - Regulation for the international |
| TROS | transport of dangerous goods in the rail transport. Technical Rules for Hazardous Substances |
| TRGS TWA | |
| | Time-Weighted Average United Nations |
| | - |
| VPVB | very persistent and very bioaccumulative |
| | r information |
| | ion is based on our present knowledge, they do not constitute an assurance of |
| product prop | erties and establishes no contract legal rights. |