

## SAFETY DATA SHEET

# Mixed bed ion exchange resin UG (EN)



The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

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

|               |            |
|---------------|------------|
| Date issued   | 25.10.2018 |
| Revision date | 12.02.2020 |

### 1.1. Product identifier

|                        |  |
|------------------------|--|
| Product name           | Mixed bed ion exchange resin UG (EN)   |
| Article no.            | Mixed bed ion exchange resin: DIB25 / DIP25; Resin Cartridge: 17201 / RORES; Quick Change Resin bag: DIB61 / DIB64 / DIB84; HydroPower DI Filter: DI12T / DI12W / DI24C / DI24T / DI24W / DI48C / DI48T; HydroPower DI Kit: DIK12 / DIK24 / DIK48 / DIO12 / DIO24 / DIO48; Ultra HydroPower: DIUH1 / DIUH2 / DIUH3; Ultra HydroPower Kit: DIUK1 / DIUK2 / DIUK2U / DIUK2S / DIUK2F / DIUK3 / DIUO1; Refill pack: DIUB1 / DIUB2 / DIUB3 / DIBCB |
| No requirement for SDS | This product is not classified as hazardous so no obligation exists to create a Safety Data Sheet according to REACH Art.31 Par.1. This product information is created in a format according to REACH Annex II to fulfill the information obligation according to REACH Art.31 Par.3, Art.32 and Art.33 also for products where no Safety Data Sheet is required on delivery.  |

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

|  |  |
|--|--|
| Function                                       | Description: Ion exchange                        |
| Product group                                  | Cleaning agents                                  |
| Use of the substance / preparation             | Demineralization                                 |
| Uses advised against                           | No specific uses advised against are identified. |
| The chemical can be used by the general public | Yes  |

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

|                |                    |
|----------------|--------------------|
| Company name   | Unger Germany GmbH |
| Postal address | Piepersberg 44     |
| Postcode       | D-42653            |
| City           | Solingen           |

|                  |   |
|------------------|---|
| Country          | Germany   |
| Telephone number | +49 (0) 212 2207 0  |
| Fax              | +49 (0) 212 2207 222  |
| Email            | <a href="mailto:compliance@unger-europe.com">compliance@unger-europe.com</a>  |
| Website          | <a href="http://www.ungerglobal.com">www.ungerglobal.com</a> / <a href="http://www.my-unger.com">www.my-unger.com</a> |

## 1.4. Emergency telephone number

|                     |  |
|---------------------|--|
| Emergency telephone | Telephone number: +49 (0) 212 22 07 0<br>Description: Business hours: Monday to Thursday 8 am - 5 pm, Friday 8 am - 4 pm |
|---------------------|--|

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

|                           |  |
|---------------------------|--|
| CLP classification, notes | Acc. to the criteria of the Regulation (EC) No. 1272/2008 (CLP) not classified as hazardous. |
|---------------------------|--|

### 2.2. Label elements

|                          |   |
|--------------------------|---|
| Precautionary statements | P102 Keep out of reach of children.<br>P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.<br>P337 + P313 If eye irritation persists: Get medical advice/attention. |
|--------------------------|---|

### 2.3. Other hazards

|  |  |
|--|--|
| Physicochemical effects                  | Spilled resin is a slipping hazard.                                  |
| Health effect                            | Resin can cause eye and skin irritation, avoid eye and skin contact. |
| Environmental effects                    | Cf. section 12 for information on ecology.                           |
| Symptoms and effects of potential misuse | No information required.   |

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

| Substance                  | Identification   | Classification                            | Contents        | Notes |
|----------------------------|--|---|-----------------|-------|
| Cation exchange resin (EU) | CAS No.: 69011-18-3  | Eye Irrit. 2; H319                        | 50 - 60 % wt/wt |       |
| Anion exchange resin (EU)  | CAS No.: 69011-20-7  | Skin Irrit. 2; H315<br>Eye Irrit. 2; H319 | 40 - 50 % wt/wt |       |
| Description of the mixture | Spherical particles: +1,2 mm < 5%, - 0,3 mm < 1% Solid. Amber.<br>Stored in water. |   |                 |       |

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

|              |   |
|--------------|---|
| General      | Place unconscious person on the side in the recovery position and ensure breathing can take place. If medical advice is needed, have product container or label at hand.                                  |
| Inhalation   | Due to the physical form the risk of inhalation is minimal. IF INHALED: Move into fresh air and keep at rest.   |
| Skin contact | Wash skin with soap and water.  |
| Eye contact  | Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.        |
| Ingestion    | Immediately rinse mouth and drink plenty of water (200-300 ml). Never give liquid to an unconscious person. DO NOT INDUCE VOMITING! If medical advice is needed, have product container or label at hand. |

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

|                            |  |
|----------------------------|--|
| Acute symptoms and effects | Cf. section 11.1 - information on toxicological effects. |
|----------------------------|--|

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

|                               |  |
|-------------------------------|--|
| Specific details on antidotes | Decontamination, symptomatic treatment. No special antidote known. |
|-------------------------------|--|

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

|                              |   |
|------------------------------|---|
| Suitable extinguishing media | Product doesn't ignite. Use fire-extinguishing media appropriate for surrounding materials. |
| Improper extinguishing media | Water jet.  |

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

|                               |   |
|-------------------------------|---|
| Fire and explosion hazards    | This product is not flammable.  |
| Hazardous combustion products | Carbon dioxide (CO <sub>2</sub> ). Carbon monoxide (CO). Hydrocarbons. Organic decomposition products. Sulfur dioxide (SO <sub>2</sub> ). Sulfur trioxide (SO <sub>3</sub> ). |

### 5.3. Advice for firefighters

|                               |   |
|-------------------------------|---|
| Personal protective equipment | In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required. |
|-------------------------------|---|

## SECTION 6: Accidental release measures

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

|                              |  |
|------------------------------|--|
| General measures             | Avoid dust formation. Avoid contact with eyes and skin.  |
| Personal protection measures | Ensure suitable personal protection (including respiratory protection) during removal of spillages in a confined area. |
| For emergency responders     | In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required.          |

## 6.2. Environmental precautions

|                                      |  |
|--------------------------------------|--|
| Environmental precautionary measures | Avoid discharge into drains, water courses or onto the ground. |
|--------------------------------------|--|

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

|          |   |
|----------|---|
| Clean up | Sweep up and place into an appropriate container. |
|----------|---|

## 6.4. Reference to other sections

|                    |   |
|--------------------|---|
| Other instructions | Cf. section 8 for personal protection, and section 13 for waste disposal. |
|--------------------|---|

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

|          |   |
|----------|---|
| Handling | Observe good chemical hygiene practices. Avoid contact with eyes and prolonged skin contact. Avoid eating, drinking and smoking when using the product. |
|----------|---|

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

|         |  |
|---------|--|
| Storage | Store at moderate temperatures in dry, well ventilated area. |
|---------|--|

### Conditions for safe storage

|  |   |
|--|---|
| Requirements for storage rooms and vessels | Storage in gateways, passages, stairways, hallways open to public, roofs, attics, cellars and workrooms is not advisable. |
| Advice on storage compatibility            | No incompatibilities known.   |

### 7.3. Specific end use(s)

|                 |                 |
|-----------------|-----------------|
| Recommendations | Cf. section 1.2 |
|-----------------|-----------------|

## SECTION 8: Exposure controls / personal protection

### 8.1. Control parameters

|                        |   |
|------------------------|---|
| Biological limit value | Recommended monitoring procedures: NIOSH 0500: Total particulates not otherwise regulated.<br>OSHA PV2121: Gravimetric determination. |
|------------------------|---|

### 8.2. Exposure controls

#### Precautionary measures to prevent exposure

|   |   |
|---|---|
| Organisational measures to prevent exposure | Thoroughly clean hands, forearms, and face after handling of the product, before eating, drinking and lavatory use, and at the end of the work shift. |
| Technical measures to prevent exposure      | Use engineering controls to reduce air contamination to permissible exposure level.   |

#### Eye / face protection

|                         |  |
|-------------------------|--|
| Suitable eye protection | Wear approved chemical safety goggles where eye exposure is reasonably probable. |
|-------------------------|--|

## Hand protection

|   |  |
|---|--|
| Skin- / hand protection, short term contact | For prolonged or repeated skin contact use suitable protective gloves. |
|---|--|

## Skin protection

|                        |  |
|------------------------|--|
| Skin protection remark | Wear appropriate clothing to prevent repeated or prolonged skin contact. |
|------------------------|--|

## Respiratory protection

|                                     |   |
|-------------------------------------|---|
| Respiratory protection necessary at | Under normal conditions of use respiration protection should not be required. |
|-------------------------------------|---|

## Hygiene / environmental

|                           |  |
|---------------------------|--|
| Specific hygiene measures | No specific hygiene procedures noted, but good personal hygiene practices are always advisable. When using do not eat, drink or smoke. Wash at the end of each work shift and before eating, smoking and using the toilet. |
|---------------------------|--|

## SECTION 9: Physical and chemical properties

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

|                               |   |
|-------------------------------|---|
| Physical state                | Solid. Spherical particles: +1,2 mm < 5%, - 0,3 mm < 1%   |
| Colour                        | Amber.  |
| Odour                         | Almost odourless.   |
| pH                            | Status: In delivery state<br>Comments: No data recorded.<br><br>Status: In aqueous solution<br>Value: 6 - 8<br>Method: aqueous suspension |
| Melting point / melting range | Comments: No data recorded.   |
| Boiling point / boiling range | Comments: No data recorded.   |
| Flash point                   | Value: > 230 °C<br>Comments: Dry product beginning to inflame   |
| Evaporation rate              | Comments: No data recorded.   |
| Flammability (solid, gas)     | No data recorded.   |
| Vapour pressure               | Comments: No data recorded.   |
| Vapour density                | Comments: No data recorded.   |
| Relative density              | Value: 1,2 g/cm <sup>3</sup><br>Temperature: 20 °C  |
| Solubility                    | Medium: Water<br>Comments: Insoluble in water.  |

|                            |                             |
|----------------------------|-----------------------------|
| Spontaneous combustability | Value: > 500 °C             |
| Decomposition temperature  | Comments: No data recorded. |
| Viscosity                  | Comments: No data recorded. |
| Explosive properties       | Not explosive               |
| Oxidising properties       | Not oxidizing               |

## 9.2. Other information

|                 |                             |
|-----------------|-----------------------------|
| Softening point | Comments: No data available |
|-----------------|-----------------------------|

## Physical hazards

|                |                             |
|----------------|-----------------------------|
| Content of VOC | Comments: No data available |
| Particle size  | Comments: No data recorded. |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

|            |                              |
|------------|------------------------------|
| Reactivity | Stable in normal conditions. |
|------------|------------------------------|

### 10.2. Chemical stability

|           |   |
|-----------|---|
| Stability | Stable under normal temperature conditions and recommended use. |
|-----------|---|

### 10.3. Possibility of hazardous reactions

|                                    |  |
|------------------------------------|--|
| Possibility of hazardous reactions | No hazardous reactions under regular storage and handlings conditions known. |
|------------------------------------|--|

### 10.4. Conditions to avoid

|                     |          |
|---------------------|----------|
| Conditions to avoid | Heating. |
|---------------------|----------|

### 10.5. Incompatible materials

|                    |                              |
|--------------------|------------------------------|
| Materials to avoid | Strong oxidising substances. |
|--------------------|------------------------------|

### 10.6. Hazardous decomposition products

|                                  |  |
|----------------------------------|--|
| Hazardous decomposition products | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ). Nitrous gases (NO <sub>x</sub> ). Sulphurous gases (SO <sub>x</sub> ). Organic decomposition products. |
|----------------------------------|--|

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

#### Other information regarding health hazards

|  |   |
|--|---|
| Eye damage or irritation other information | Prolonged contact may cause redness and/or tearing. |
|--|---|

|  |  |
|--|--|
| Sensitisation  | No specific health warnings noted.                 |
| Mutagenicity   | No specific health warnings noted.                 |
| Carcinogenicity, other information   | No specific health warnings noted.                 |
| Reproductive toxicity  | No specific health warnings noted.                 |
| Reproductive toxicity, human experience  | No specific health warnings noted.                 |
| Assessment of specific target organ toxicity - single exposure, classification   | Not data available, probably no subacute toxicity. |
| Assessment of specific target organ toxicity - repeated exposure, classification | Not data available, probably no chronic toxicity.  |
| Aspiration hazard, comments  | Technically not feasible.                          |

## SECTION 12: Ecological information

### 12.1. Toxicity

|                   |   |
|-------------------|---|
| Aquatic, comments | Based on available data, the classification criteria are not met. |
|-------------------|---|

### 12.2. Persistence and degradability

|   |                                   |
|---|-----------------------------------|
| Persistence and degradability, comments | The product is not biodegradable. |
|---|-----------------------------------|

### 12.3. Bioaccumulative potential

|                           |                                     |
|---------------------------|-------------------------------------|
| Bioaccumulative potential | The product is not bioaccumulating. |
|---------------------------|-------------------------------------|

### 12.4. Mobility in soil

|          |   |
|----------|---|
| Mobility | Not relevant, due to the form of the product. |
|----------|---|

### 12.5. Results of PBT and vPvB assessment

|                        |   |
|------------------------|---|
| PBT assessment results | This product does not contain any PBT or vPvB substances. |
|------------------------|---|

### 12.6. Other adverse effects

|  |   |
|--|---|
| Ozone depletion potential              | Comments: Ozone depletion potential not known |
| Photochemical ozone creation potential | Comments: Ozone formation potential not known |
| Global warming potential               | Comments: Global greenhouse effect not known  |

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

|   |   |
|---|---|
| Specify the appropriate methods of disposal | Dispose of waste and residues in accordance with local authority requirements.<br>No specific disposal method required. |
|---|---|

|                      |  |
|----------------------|--|
| EWC waste code       | EWC waste code: 190905 saturated or spent ion exchange resins<br>Classified as hazardous waste: No |
| EU Regulations       | European Waste Inventory according to the Decision 2014/955/EU on the list of waste                |
| National regulations | The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).                      |

## SECTION 14: Transport information

### 14.1. UN number

|          |                          |
|----------|--------------------------|
| Comments | No recommendation given. |
|----------|--------------------------|

### 14.2. UN proper shipping name

|          |                          |
|----------|--------------------------|
| Comments | No recommendation given. |
|----------|--------------------------|

### 14.3. Transport hazard class(es)

|          |                          |
|----------|--------------------------|
| Comments | No recommendation given. |
|----------|--------------------------|

### 14.4. Packing group

|          |                          |
|----------|--------------------------|
| Comments | No recommendation given. |
|----------|--------------------------|

### 14.5. Environmental hazards

|          |                          |
|----------|--------------------------|
| Comments | No recommendation given. |
|----------|--------------------------|

### 14.6. Special precautions for user

|                                     |                          |
|-------------------------------------|--------------------------|
| Special safety precautions for user | No recommendation given. |
|-------------------------------------|--------------------------|

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

|              |                          |
|--------------|--------------------------|
| Product name | No recommendation given. |
|--------------|--------------------------|

### Additional information

|                        |   |
|------------------------|---|
| Additional information | The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID). |
|------------------------|---|

## SECTION 15: Regulatory information

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

|               |  |
|---------------|--|
| EEC-directive | Regulation (EC) No. 1907/2006 and Regulation (EC) 2015/830<br>Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures.<br>The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, |
|---------------|--|



|                               |   |
|-------------------------------|---|
|                               | at their direct request or at the request of a detergent manufacturer.  |
| References (laws/regulations) | Health and Safety at Work Act 1974.<br>The Managing for health and safety (HSG65) 2013.<br>L5 Control of substances hazardous to Health. The Control of Substances Hazardous to Health Regulations 2002. Approved codes of practice and guidance. Guidance Note EH40 – Occupational Exposure Limits.<br>BS EN ISO 10882-1:2001 – health and safety in welding and allied processes – sampling of air-borne particles and gases in the operator’s breathing zone – part 1: sampling of airborne particles. |
| Comments                      | Ingredients according to the Regulation on Detergents 648/2004: less than 5% anionic surfactants, non-ionic surfactants, perfume.   |

## 15.2. Chemical safety assessment

|                                      |                          |
|--------------------------------------|--------------------------|
| Chemical safety assessment performed | No                       |
| Chemical safety assessment           | No data recorded.        |
| Exposure scenarios for mixture       | No                       |
| Exposure scenario comments           | No recommendation given. |

## SECTION 16: Other information

|  |   |
|--|---|
| Supplier's notes                             | The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user. |
| List of relevant H-phrases (Section 2 and 3) | H315 Causes skin irritation.<br>H319 Causes serious eye irritation.   |
| Training advice                              | Not relevant.   |
| Recommended restrictions on use              | Not relevant.   |
| User notes                                   | In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material, as far as not expressly stated otherwise.  |
| Version                                      | 1   |