



SDS according to Regulation (EC) No. 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Annex II-EU

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

Date issued 10.10.2015

1.1. Product identifier

| | |
|------------------------|---|
| Product name | Premium Grade Virgin Mixed Bed Resin UG (EU / EN) |
| Article no. | DIB61 / DIB64 / DIB84 / DIB25 / DIP25 |
| 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 | 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 |
| Tel | +49 (0) 212 2207 0 |
| Fax | +49 (0) 212 2207 137 |
| E-mail | compliance@unger-europe.com |
| Website | http://www.ungerglobal.com |

1.4. Emergency telephone number

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

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

| | |
|--------------------------|--|
| Classification notes CLP | Acc. to the criteria of the Regulation (EC) No. 1272/2008 (CLP) not classified as hazardous. |
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2.2. Label elements

| | |
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| Precautionary statements | P102 Keep out of reach of children. 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.

2.3. Other hazards

| | |
|--|--|
| Physico-chemical 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 |
|----------------------------|--|---|------------|
| Cation exchange resin (EU) | CAS no.: 69011-18-3 Synonyms: Ethylethenylbenzene, ethenylbenzene, diethenylbenzene polymer, methanaminium N,N,N-trimethyl hydroxide IUPAC name: Benzene, diethenyl-, polymer with ethenylbenzene and ethenylethylbenzene, chloromethylated, trimethylamine-quaternized, hydroxide | Eye Irrit. 2; H319 | 60 % wt/wt |
| Anion exchange resin (EU) | CAS no.: 69011-20-7 Synonyms: Ethylbenzene, ethylethenylbenzene, diethenylbenzene polymer, sulfonated IUPAC name: Benzene, diethenyl-, polymer with ethenylbenzene and ethenylethylbenzene, sulfonated | Skin Irrit. 2; H315 Eye Irrit. 2; H319 | 40 % wt/wt |
| Description of the mixture | Spherical particles 0,2-0,4 mm. Solid. Amber. | | |

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

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|------------------------------|---|
| 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

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

5.3. Advice for firefighters

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| Personal protective equipment | In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required. |
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SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

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| 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. |
| Hazardous combustion products | Cf. section 5 |

6.1.2. For emergency responders

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|--------------------------|---|
| For emergency responders | In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required. |
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6.2. Environmental precautions

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|--------------------------------------|--|
| Environmental precautionary measures | Avoid discharge into drains, water courses or onto the ground. |
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6.3. Methods and material for containment and cleaning up

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|-----------------|--|
| Cleaning method | Sweepup or pickup with an industrial vacuum cleaner, store in closed container for disposal. |
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6.4. Reference to other sections

| | |
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| Other instructions | Cf. section 8 for personal protection, and section 13 for waste disposal. |
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SECTION 7: Handling and storage**7.1. Precautions for safe handling**

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| Handling | Observe good chemical hygiene practices. Avoid contact with eyes and prolonged skin contact. Avoid eating, drinking and smoking when using the product. |
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7.2. Conditions for safe storage, including any incompatibilities

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| Storage | Store at moderate temperatures in dry, well ventilated area. |
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Conditions for safe storage

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|--|---|
| 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****DNEL / PNEC**

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| Recommended monitoring procedures | NIOSH 0500: Total particulates not otherwise regulated. OSHA PV2121: Gravimetric determination. |
|-----------------------------------|--|

8.2. Exposure controls

Precautionary measures to prevent exposure

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|---|---|
| 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. |

Respiratory protection

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|------------------------|---|
| Respiratory protection | Under normal conditions of use respiratory protection should not be required. In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter (type P2). |
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Hand protection

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|-----------------|--|
| Hand protection | For prolonged or repeated skin contact use suitable protective gloves. |
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Eye / face protection

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

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| Skin protection (except hands) | Generally regular work clothing sufficient. |
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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. |
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SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

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|---|---|
| Physical state | Spherical particles 0,2-0,4 mm. Solid. |
| Colour | Amber. |
| Odour | Almost odourless. |
| Comments, pH (as supplied) | No data recorded. |
| pH (aqueous solution) | Value: 6-8 Method of testing: aqueous suspension |
| Comments, Melting point / melting range | No data recorded. |
| Comments, Boiling point / boiling range | No data recorded. |
| Flash point | Value: > 230 °C |
| Comments, Flash point | Dry product beginning to inflame |
| Comments, Evaporation rate | No data recorded. |
| Flammability (solid, gas) | No data recorded. |
| Comments, Vapour pressure | No data recorded. |
| Comments, Vapour density | No data recorded. |
| Specific gravity | Value: 1,2 g/cm ³ Test temperature: 20 °C |
| Solubility in water | Unlimited miscible |
| Spontaneous combustability | Value: > 500 °C |
| Comments, Decomposition temperature | No data recorded. |
| Comments, Viscosity | No data recorded. |
| Explosive properties | Not explosive |
| Oxidising properties | Not oxidizing |

9.2. Other information

| | |
|-----------------|-----------------------------|
| Softening point | Comments: No data available |
| Content Of Voc | Comments: No data available |

Physical hazards

Comments, Particle size 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 (CO₂). Nitrous gases (NO_x). Sulphurous gases (SO_x). Organic decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Potential acute effects

| | |
|-------------------|--|
| Inhalation | No specific health warnings noted. |
| Skin contact | No specific health warnings noted. Prolonged contact may cause redness and irritation. |
| Eye contact | No specific health warnings noted. Prolonged contact may cause redness and/or tearing. |
| Ingestion | No specific health warnings noted. The product causes irritation of mucous membranes and may cause abdominal discomfort if swallowed. Ingestion may cause irritation of the gastrointestinal tract, vomiting and diarrhea. |
| Aspiration hazard | Depending on the product's properties - solid spherical particles of 0.2-0.4 mm - aspiration is technically not feasible. |

Delayed effects / repeated exposure

| | |
|------------------------|--|
| Sensitisation | No specific health warnings noted. |
| STOT-single exposure | No data available, probably no subchronic toxicity |
| STOT-repeated exposure | No data available, probably no chronic toxicity |

Carcinogenic, Mutagenic or Reprotoxic

| | |
|------------------------|------------------------------------|
| Carcinogenicity | No specific health warnings noted. |
| Mutagenicity | No specific health warnings noted. |
| Teratogenic properties | No specific health warnings noted. |
| Reproductive toxicity | No specific health warnings noted. |

SECTION 12: Ecological information

12.1. Toxicity

12.2. Persistence and degradability

Persistence and degradability 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

| | |
|-------------------------------------|-------------------------------------|
| Comments, Ozone depletion potential | Ozone depletion potential not known |
|-------------------------------------|-------------------------------------|

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

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

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| Specify the appropriate methods of disposal | Dispose of waste and residues in accordance with local authority requirements. No specific disposal method required. |
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|---------------------------|--|
| Relevant waste regulation | European Waste Inventory according to the Decision 2014/955/EU on the list of waste The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895). |
|---------------------------|--|

| | |
|---------------------------------------|----|
| Product classified as hazardous waste | No |
|---------------------------------------|----|

| | |
|---|----|
| Packaging classified as hazardous waste | No |
|---|----|

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|----------------|--|
| EWC waste code | EWC: 190905 saturated or spent ion exchange resins |
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SECTION 14: Transport information**14.1. UN number**

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|----------|--------------------------|
| 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. |
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14.5. Environmental hazards

| | |
|----------|--------------------------|
| Comments | No recommendation given. |
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14.6. Special precautions for user

| | |
|-------------------------------------|--------------------------|
| Special safety precautions for user | No recommendation given. |
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14.7. Transport in bulk according to Annex II of MARPOL 73/78 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). |
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ADR / RID - Other information

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|-----------------------|--------------------------|
| ADR Other information | No recommendation given. |
|-----------------------|--------------------------|

ADN - Other information

| | |
|-------------------|--------------------------|
| Other information | No recommendation given. |
|-------------------|--------------------------|

IMDG / ICAO / IATA Other information

| | |
|------------------------|--------------------------|
| IMDG Other information | No recommendation given. |
|------------------------|--------------------------|

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 Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures. |
| References (laws/regulations) | Other UK regulations and guidances: Health and Safety at Work Act 1974. The Management of Health and Safety at Work regulations 1992. 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. 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. |

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. 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 |
| Responsible for safety data sheet | Unger Germany GmbH |