



SECTION 1 Identification of the substance/mixture and of the company/preparer

Date issued 30.08.2015

1.1. Product identifier

Product name Unger Resin UE (US-CA-MX / EN)
 Article no. DI10U / DC225 / HP06T / HP12T / HP12C / HP24T / HP 24C / HP06K /
 HPB06 / HPB24 / DIR22 / DIC22 / DCC25 / DCR22 / 17617 / 17567

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 Enterprises LLC
 Office address 425 Asylum Street
 Postcode 06610
 City Bridgeport, CT
 Country United States of America
 Tel +1 800 431 2324
 Fax +1 800 367 1988
 E-mail compliance@ungerglobal.com
 Website http://www.ungerglobal.com

1.4. Emergency telephone number

Identification comments For Hazardous Materials [or Dangerous Goods] Incident - Spill, Leak, Fire, Exposure, or Accident - Call CHEMTREC Day or Night.
 Within USA and Canada: 1-800-424-9300 CCN726541 or +1 703-527-3887 (collect calls accepted).
 Within Mexico, please call + 1 203 366 4884 (collect calls accepted) between 8:30 am – 5:00 pm Eastern Time Zone (EST/EDT).

SECTION 2 Hazard identification

2.1. Classification of substance or mixture

GHS Classification, Comments Not classified as hazardous according to OSHA Hazard Communication Standard, 29 CFR 1910.1200.

2.2. Label elements

Composition on the label Cation exchange resin:60 % wt/wt, Anion exchange resin:40 % wt/wt
 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 effects	Resin can cause eye and skin irritations, 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 (US)	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 (US)	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. 0% of the mixture consists of ingredients(s) of unknown toxicity.		

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 (7-10 fl. oz.). 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 6: 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 ₂), Carbon monoxide (CO), Hydrocarbons, Organic decomposition products, Sulfur dioxide (SO ₂), Sulfur trioxide (SO ₃).

5.3. Advice for firefighters

Personal protective equipment	In case of inadequate ventilation wear respiratory protection. Use personal protective equipment as required.
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SECTION 6: Ventilation 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.
Hazardous combustion products	Cf. section 5

6.1.2. For emergency responders

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

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

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

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**

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

Storage	Store at moderate temperatures in dry, well ventilated area.
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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
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SECTION 8: Exposure controls/personal protection**8.1. Control parameters****DNEL / PNEC**

Recommended monitoring procedures	NIOSH 0500: Total particulates not otherwise regulated. OSHA PV2121: Gravimetric determination.
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8.2. Exposure controls**Precautionary measures to prevent exposure**

Organizational 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

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).

Hand protection

Hand protection For prolonged or repeated skin contact use suitable protective gloves.

Eye / face protection

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

Skin protection

Skin protection (except hands) Generally regular work clothing sufficient.

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	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 handling 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

Comments Global warming potential 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. No specific disposal method required.

Relevant waste regulation USA: Federal waste regulation: 40 CFR 261
Canada: Canadian Environmental Protection Act (CEPA 1999; s.s. 1999, c.33)
Part 7 Controlling Pollution and Managing Wastes.
Mexico: Regulation of the General Law of Ecological Balance and Environmental Protection in Hazardous Waste.

Product classified as hazardous waste No

Packaging classified as hazardous waste No

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 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).

ADR / RID - Other information

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

References (laws/regulations)

International Inventories

USA: All compounds are listed on the TSCA Inventory

Canada: All components are listed either on the DSL or NDSL.

Regulations of the United States of America:

29 CFR 1910.1200, Subpart Z (Toxic and Hazardous Substances), App. A (Health Hazards), App B (Physical Criteria), App C (Allocation of Label Elements), App D (Minimum Information for a SDS), App E (Trade Secret), App F (Carcinogenicity).

US Federal Regulations:

SARA 313:

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories:

Acute Health Hazard Yes

Chronic Health Hazard No

Fire Hazard No

Sudden release of pressure hazard No

Reactive Hazard No

CWA (Clean Water Act):

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65:

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations:

This product does not contain any substances regulated by state right-to-know regulations.

Regulations of Canada:

Workplace Hazardous Materials Information System (WHMIS 2015), adoption to the Globally Harmonized System (GHS).

Hazardous Products Act (R.S.C., 1985, c.H-3), last amended Feb 11, 2015.

Hazardous Products Regulation (SOR / 2015-17), last amended Feb 11, 2015.

Regulations of Mexico:

Official Mexican Standard NMX-R-019-SCFI-2011, harmonized system of classification and hazard communication of chemicals [Globally Harmonized System (GHS)] (DOF, 29-VI-2011).

Official Mexican Standard NOM-018-STPS-2000, system for the identification and communication of hazards and risks from hazardous chemicals in the workplace (DOF, 27-X-2000).

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 Enterprises LLC