Safety Data Sheet

1. IDENTIFICATION OF SUBSTANCE / PREPARATION AND COMPANY		
1.1 Product Identifier		
Product Name	DC6-11, D150, D330, D340, D730, D700, HP340, HP700, B340, B700, Labwater 1, Labwater2	
Synonym(s)	Ion Exchange Resin, Deioniser cartridge/cylinder	
Issue: April 2024	Revision: Rev002/WPS	Date:10/04/2024
1.2 Relevant identified uses of the substance or mixture and uses advised against		
Identified uses	Ion exchange and/or Adsorption process	
1.3 Details of the supplier of the safety data sheet		
Company Identification	VEOLIA Water Purification Systems Limited	
Company Address	Bandet Way, Thame, Oxon OX9 3SJ, England	
Contact	Tel. No. +44 (0)1844 217141: Email mail.waterpurificationsystems.uk@Veolia.com	
1.4 Emergency telephone number	Tel. No. +44 (0)1844 217141	

2. HAZARDS IDENTIFICATION	
2.1 Classification of the substance or mixture	
Physical hazards	Not Classified
Health hazards	Causes Serious eye damage - Category 1 - H318
Environmental hazards	Not Classified
2.2 Label elements	
EC No.	Polymer
Pictogram	
Single word	DANGER
Hazard statements	H318 Causes serious eye damage.
Precautionary Statement	P280 Wear eye protection/ face protection. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Signal Word: DANGER
2.3 Other hazards	
	No Data Available

3. COMPOSITION / INFORMATION ON INGREDIENTS

CASRN / EC-No. / Index-No.	REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
CASRN 69011-20-7 EC-No. Polymer Index-No. –	-	>= 20.0 - < 30.0 %	Sulfonated polymer of styrene, ethyl styrene and divinylbenzene in the hydrogen form	Eye Dam. - 1 - H318
CASRN 69011-18-3 EC-No. Polymer Index-No. –	-	>= 20.0 - < 30.0 %	Trimethylamine functionalized copolymer of styrene and divinylbenzene in the hydroxide form	Eye Dam. - 1 - H318

4. FIRST AID MEASURES

4.1 Description of first aid measures

General	First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.
Inhalation	Move person to fresh air; if effects occur, consult a physician
Ingestion	No emergency medical treatment necessary.
Eye Contact	Wash immediately and continuously with flowing water for at least 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist. Suitable emergency eye wash facility should be immediately available.
Skin Contact	Wash off with plenty of water.
Protection of First Aiders	No action shall be taken without appropriate training or involving any personal risk.

4.2 Most Important symptoms and effects, both acute and delayed

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

4.3 Indication for any immediate medical attention and special treatment needed

Notes for the doctor	No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media	
Suitable Extinguishing media	Water. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers.
Unsuitable Extinguishing media	No data available
5.2 Special hazards arising from the substance or mixture:	
Unusual Fire and Explosion Hazards:	This material will not burn until the water has evaporated. Residue can burn.
Hazardous combustion products	Under fire conditions some components of this product may decompose. The smoke may contain unidentified toxic and/or irritating compounds. Combustion products may include and are not limited to: Sulphur oxides. Organic sulfonates. Hydrocarbons. Carbon monoxide. Carbon dioxide. Benzene compounds.
5.3 Advice for Firefighters	
Special protective equipment required for fire fighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and protective firefighting clothing (includes firefighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected
Fire Fighting Procedures:	Keep people away. Isolate fire and deny unnecessary entry. Soak thoroughly with water to cool and prevent re-ignition. Cool surroundings with water to localize fire zone.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures	
Personal Precautions, protective equipment and emergency procedures:	Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Spilled material may cause a slipping hazard. Keep upwind of spill. Ventilate area of leak or spill. Refer to section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.
6.2 Environmental precautions	
Environmental precautions	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.
6.3 Methods and material for containment and cleaning up	
Methods for cleaning up	Contain spilled material if possible. Sweep up. Recover spilled material if possible. Collect in suitable and properly labelled containers. See Section 13, Disposal Considerations, for additional information.
6.4 Reference to other sections	
Reference to other sections	References to other sections, if applicable, have been provided in the previous sub-sections.

7. HANDLING & STORAGE

7.1 Precautions for safe handling	
Precautions for Safe Handling	Do not get in eyes. Wash thoroughly after handling. Keep container closed. Use with adequate ventilation. Static electricity can accumulate on dry beads. Leave room for expansion as dry resin swells upon wetting and/or changing ionic form. Equipment construction material should be compatible with feed, regenerant, ionic form and effluent of the ion exchange process. Avoid generating and breathing dust. Good housekeeping and controlling of dusts are necessary for safe handling of product. See Section 8, EXPOSURE
7.2 Conditions for safe storage, including any incompatibilities	
Storage precautions	Store in a dry place. Keep container tightly closed when not in use. Preferred storage temperature is in the lower half of the range given below. Keep in a dry, cool place. Keep container tightly closed. Storage stability Storage temperature: Shelf life: 0 - 50 °C Use within 36 Months
7.3 Specific end use(s)	
Specific end use(s)	See the technical data sheet on this product for further information. Other data: CAUTION: Do not pack column with dry ion exchange resins. Dry beads expand when wetted; this expansion can cause glass column to shatter.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters	
Ingredient comments	If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.
Exposure Limits	
8.2 Exposure Controls	
Protective Equipment	
Appropriate engineering controls	Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations.
Eye/Face protection	Use chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent.

Hand Protection	Use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Examples of preferred glove barrier materials include: Polyvinyl chloride ("PVC" or "vinyl"). Nitrile/butadiene rubber ("nitrile" or "NBR"). Neoprene. When prolonged or frequently repeated contact may occur, a glove is recommended to prevent contact with the solid material. NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.
Other skin and body protection	Wear clean, body-covering clothing.
Respiratory protection	Under intended handling conditions, no respiratory protection should be needed.
Environmental exposure controls	See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Beads
Colour/Odour	Amber Brown
Odour	Amine odour
Odour threshold	No information available
pH	5.0 - 9.0 Aqueous slurry
Melting Point	No Data
Freezing Point	No Data
Boiling point (ºC)	100.00 °C Water
Flash Point	No data
Evaporation Rate (Butyl Acetate = 1)	No data
Flammability (solid, gas)	No Data
Upper/lower flammability or explosive limits	Not Applicable
Vapor Pressure	22 hPa at 20 °C
Relative Vapor Density (air = 1)	<1.0000
Relative Density (water = 1)	1.0800 - 1.2000
Water Solubility	Practically insoluble
Partition coefficient: n-octanol/water	No data available

Auto ignition Temperature	500.00 °C estimated
Decomposition Temperature	No test data available
Kinematic Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available
9.2 Other information	
Molecular weight	No data available
Percent Volatility	59.00 - 64.00 %
Particle Size	0.300 - 1.200 mm
NOTE: The physical data presented above are typical values and should not be construed as a specification.	

10. STABILITY & REACTIVITY

10.1 Reactivity	
Reactivity	No data available.
10.2 Chemical stability	
Stability	Stable under recommended storage conditions. See Storage, Section 7.
10.3 Possibility of hazardous reactions	
Possibility of hazardous reactions	Stable under normal conditions.
10.4 Conditions to avoid	
Conditions to avoid	Exposure to elevated temperatures can cause product to decompose.
10.5 Incompatible materials	
Material to avoid	Avoid contact with oxidizing materials. Oxidizing agents such as nitric acid attack organic exchange resins under certain conditions. Before using strong oxidizing agents, consult sources knowledgeable in handling such materials. The severity of the reaction with oxidizing materials can vary from slight degradation to an explosive reaction.
10.6 Hazardous decomposition products	
Hazardous decomposition products	Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include and are not limited to: Aromatic compounds. Hydrocarbons. Organic sulfonates. Sulphur oxides.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity	**Acute oral toxicity** Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. Typical for this family of materials. LD50, Rat, > 5,000 mg/kg **Acute dermal toxicity** No adverse effects anticipated by skin absorption. The dermal LD50 has not been determined. **Acute inhalation toxicity** No adverse effects are anticipated from inhalation. Vapours are unlikely due to physical properties. For respiratory irritation and narcotic effects: No relevant data found. The LC50 has not been determined.
Skin corrosion/irritation	Prolonged exposure not likely to cause significant skin irritation. May cause more severe response if skin is abraded (scratched or cut).
Serious eye damage/irritation	May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.
Respiratory sensitisation	No relevant data found
Skin sensitisation	No relevant data found.
Specific Target Organ Systemic Toxicity (Single Exposure)	Evaluation of available data suggests that this material is not an STOT-SE toxicant.
Specific Target Organ Systemic Toxicity (Repeated Exposure)	No relevant data found
Carcinogenicity	No relevant data found
Teratogenicity	No relevant data found
Reproductive toxicity	No relevant data found
Mutagenicity	No relevant data found
Aspiration Hazard	Based on physical properties, not likely to be an aspiration hazard.
COMPONENTS INFLUENCING TOXICOLOGY:	**Trimethylamine functionalised copolymer of styrene and divinylbenzene in the hydroxide form** **Acute inhalation toxicity** The LC50 has not been determined.

12. ECOLOGICAL INFORMATION

Ecotoxicity	Ecotoxicological information appears in this section when such data is available. General Information Limited effects are expected from exposure of the environmental compartments by insoluble plastic beads of large diameter (300 to 1200 microns).
12.1 Toxicity	
Toxicity	**Sulfonated polymer of styrene, ethyl styrene and divinylbenzene in the hydrogen form** **Acute toxicity to fish** Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life. **Trimethylamine functionalised copolymer of styrene and divinylbenzene in the hydroxide form** **Acute toxicity to fish** No relevant data found
12.2 Persistence and degradability	
Persistence and degradability	**Sulfonated polymer of styrene, ethyl styrene and divinylbenzene in the hydrogen form** **Biodegradability:** No appreciable biodegradation is expected. **Trimethylamine functionalised copolymer of styrene and divinylbenzene in the hydroxide form** **Biodegradability:** No relevant data found.
12.3 Bio-accumulative potential	
Bio-accumulative potential	**Sulfonated polymer of styrene, ethyl styrene and divinylbenzene in the hydrogen form** Bioaccumulation: No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000). **Trimethylamine functionalised copolymer of styrene and divinylbenzene in the hydroxide form** Bioaccumulation: No relevant data found.
12.4 Mobility in soil	

Mobility	**Sulfonated polymer of styrene, ethyl styrene and divinylbenzene in the hydrogen form** In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment, material will sink and remain in the sediment. **Trimethylamine functionalised copolymer of styrene and divinylbenzene in the hydroxide form** No relevant data found.
12.5 Results of PBT and vPvB assessment	
Results of PBT and vPvB assessment	**Sulfonated polymer of styrene, ethyl styrene and divinylbenzene in the hydrogen form** This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT). **Trimethylamine functionalised copolymer of styrene and divinylbenzene in the hydroxide form** This substance has not been assessed for persistence, bioaccumulation and toxicity (PBT).
12.6 Other adverse effects	
Other adverse effects	**Sulfonated polymer of styrene, ethyl styrene and divinylbenzene in the hydrogen form** This substance is not on the Montreal Protocol list of substances that deplete the ozone layer. **Trimethylamine functionalised copolymer of styrene and divinylbenzene in the hydroxide form** This substance is not on the Montreal Protocol list of substances that deplete the ozone layer.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste Treatment	This product, when being disposed of in its unused and uncontaminated state should be treated as a hazardous waste according to EC Directive 2008/98/EC. Any disposal practices must be in compliance with all national and provincial laws and any municipal or local by-laws governing hazardous waste. For used, contaminated and residual materials additional evaluations may be required. Do not dump into any sewers, on the ground, or into any body of water. The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.
Contaminated packaging	Empty containers should be taken to local recyclers for disposal. Refer to applicable federal, state, and local regulations.

14. TRANSPORT INFORMATION

CLASSIFICATION FOR ROAD AND RAIL TRANSPORT (ADR/RID)

14.1 UN Number

UN number	Not applicable

14.2 UN proper shipping name	
	Not regulated for transport
14.3 Transport Hazard	
	Not applicable
14.4 Packing group	
	Not applicable
14.5 Environmental hazards	
Environmentally hazardous substance/marine pollutant	Not considered environmentally hazardous based on available data.
14.6 Special Precautions for user	
	No data available.

14. TRANSPORT INFORMATION

Classification for SEA transport (IMO-IMDG):

14.1 UN Number	
UN number	Not applicable
14.2 UN proper shipping name	
	Not regulated for transport
14.3 Transport Hazard	
	Not applicable
14.4 Packing group	
	Not applicable
14.5 Environmental hazards	
Environmentally hazardous substance/marine pollutant	Not considered a marine pollutant based on available data.
14.6 Special Precautions for user	
	No data available.
14.7 Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code	
	Consult IMO regulations before transporting ocean bulk

14. TRANSPORT INFORMATION

Classification for AIR transport (IATA/ICAO):

14.1 UN Number	
UN number	Not applicable
14.2 UN proper shipping name	
	Not regulated for transport
14.3 Transport Hazard	
	Not applicable
14.4 Packing group	
	Not applicable
14.5 Environmental hazards	
	Not applicable
14.6 Special Precautions for user	
	No data available.

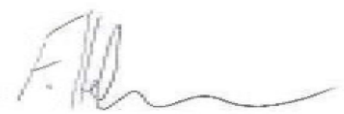
This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. REGULATORY INFORMATION

15.1 Safety Health and environmental regulations/legislation specific for the substance or mixture	
REACh Regulation (EC) No 1907/2006	This product contains only components that have been either registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No. 1907/2006 (REACH)., Polymers are exempted from registration under REACH. All relevant starting materials and additives have been either registered, or are exempt from registration according to Regulation (EC) No. 1907/2006 (REACH).,The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer´s/user´s responsibility to ensure that his/her understanding of the regulatory status of this product is correct.
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	Listed in Regulation: Not applicable
15.2 Chemical safety assessment	
	Not applicable

16. OTHER INFORMATION

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

Signed:	Date:
 Frank Heathman UKI QHSE Leader	10th April 2024