



Safety Data Sheet

Section 01 - Identification

Product Identifier	RESINEX™ KH, KW-H, KW-H PLUS
Other Means of Identification	Acrylic-Divinylbenzene-Copolymer with carboxylic functional group
Product Use and Restrictions on Use	Removes temporary hardness, heavy metal removal in electroplating applications.
Initial Supplier Identifier	ClearTech Industries Inc. 1500 Quebec Avenue Saskatoon, SK. Canada S7K 1V7
Prepared By	ClearTech Industries Inc. Technical Writer Phone: 1 (800) 387-7503
24-Hour Emergency Phone	Phone: 1 (306) 664 – 2522

Section 02 - Hazard Identification

GHS-Classification

This product has been assessed in accordance with the Hazardous Products Regulations and is not classified as a hazardous substance or mixture.

Section 03 - Composition / Information on Ingredients

Chemical Name	CAS Number	Weight %	Unique Identifiers
Crosslinked polystyrene divinylbenzene(hydrogen form)		35-65%	
Water	7732-18-5	35-65%	

Section 04 - First Aid Measures

Inhalation	If symptoms are experienced, remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention.
Skin Contact / Absorption	Remove contaminated clothing. Wash affected area with soap and water. Seek medical attention if irritation occurs or persists.
Eye Contact	Flush immediately with water for at least 30 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek medical attention if irritation occurs or persists.
Ingestion	Give water to drink if conscious. Seek medical attention if discomfort occurs.
Additional Information	Not Available

Section 05 - Fire Fighting Measures

Suitable Extinguishing Media	Dry chemical , foam, CO ₂ , or water.
Unsuitable Extinguishing Media	Not Available

Specific Hazards Arising From the Chemical	Combustion by-products may include carbon monoxide, carbon dioxide, sulphur oxides, monomers and organic compounds.
Special Protective Equipment and Precautions for Fire-Fighters	Wear NIOSH-approved self-contained breathing apparatus and protective clothing.
Further Information	Not Available

Section 06 - Accidental Release Measures

Personal Precautions / Protective Equipment / Emergency Procedures	Wear appropriate personal protective equipment if required. In case of spills, resin beads may mechanically cause floor to be slippery. Take care to avoid falls.
Environmental Precautions	Ensure spilled product does not enter sewage systems as ion-exchange resins might change the pH of receiving waters.
Methods and Materials for Containment and Cleaning Up	Mechanically collect material and transfer to containers for proper disposal.

Section 07 - Handling and Storage

Precautions for Safe Handling	Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.
Conditions for Safe Storage	Store in a cool place, separated from food materials and strong oxidizing agents (i.e. nitric acid). Keep bags sealed to avoid dehydration. Ideal storage temperature range is 1°C - 40°C.
Incompatibilities	Strong oxidizers, reducing agents.

Section 08 - Exposure Controls and Personal Protection

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Crosslinked polystyrene divinylbenzene(hydrogen form)	Not Available		

Engineering Control(s)

Ventilation Requirements	Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.
Other	Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face	No specific requirements, but it is good practice to wear chemical safety glasses while product is being handled.
Hand Protection	No specific requirements, but it is good practice to prevent skin contact by wearing impervious gloves of chemically resistant material.
Skin and Body Protection	No specific requirements, but it is good practice to prevent skin contact by wearing body suite, aprons, and/or coveralls. No special footwear is required other than what is mandated at place of work.

Respiratory Protection Respiratory protection is not normally required.

Thermal Hazards Not Available

Section 09 - Physical and Chemical Properties

Appearance

Physical State Solid

Colour White opaque beads

Odour Odourless

Odour Threshold Not Available

Property

pH Not specified, neutral to slightly acidic

Melting Point/Freezing Point Not Available

Initial Boiling Point and Boiling Range Not Available

Flash Point Not Available

Evaporation Rate Not Available

Flammability Non-Flammable

Upper Flammable Limit Not Available

Lower Flammable Limit Not Available

Vapour Pressure (mm Hg, 20°C) Not Available

Vapour Density (Air=1) Not Available

Relative Density 770kg/m³

Solubility(ies) Insoluble in water

Partition Coefficient: n-octanol/water Not Available

Auto-ignition Temperature >250°C

Decomposition Temperature Not Available

Viscosity Not Applicable

Explosive Properties Contact with strong oxidizing substances may react violently with ion exchange resins and cause explosive type reactions.

Specific Gravity (Water=1) 1.17

% Volatiles by Volume Not Available

Formula Not Available

Molecular Weight Not Available

Section 10 - Stability and Reactivity

Reactivity Not Available

Stability Stable under normal conditions.

Possibility of Hazardous Reactions No dangerous reactions known.

Conditions to Avoid Not Available

Incompatible Materials Strong oxidizers, reducing agents.

Hazardous Decomposition Products Combustion by-products may include carbon monoxide, carbon dioxide, sulphur oxides, monomers and organic compounds.

Section 11 - Toxicological Information

Acute Toxicity

Component	Oral LD ₅₀	Dermal LD ₅₀	Inhalation LC ₅₀
Crosslinked polystyrene divinylbenzene(hydrogen form)	Not Available	Not Available	Not Available

Chronic Toxicity – Carcinogenicity

Component	IARC
Crosslinked polystyrene divinylbenzene(hydrogen form)	This product is not listed by NTP, IARC or regulated as a carcinogen by OSHA.

Skin Corrosion/Irritation Mild irritant.

Ingestion None reported, not a likely route of entry.

Inhalation Non-irritant.

Serious Eye Damage/Irritation Mildly irritating to eyes.

Respiratory or Skin Sensitization Not Available

Germ Cell Mutagenicity Not Available

Reproductive Toxicity Not Available

STOT-Single Exposure Not Available

STOT-Repeated Exposure Not Available

Aspiration Hazard Not Available

Synergistic Materials Not Available

Section 12 – Ecological Information

Ecotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Crosslinked polystyrene divinylbenzene(sodium form)	Not Available	Not Available	Not Available

Biodegradability	Not Available
Bioaccumulation	Not Available
Mobility	Not Available
Other Adverse Effects	Not Available

Section 13 – Disposal Considerations

Waste From Residues/Unused Products	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.
Contaminated Packaging	Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Section 14 – Transport Information

UN Number	Not Regulated
UN Proper Shipping Name	Not Regulated
Transport Hazard Class(es)	Not Regulated
Packaging Group	Not Regulated
Environmental Hazards	Not listed as a marine pollutant under Canadian TDG Regulations, schedule III.
Special Precautions	Not Available
Transport in Bulk	Not Available

TDG

Other	Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.
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TDG PRODUCT CLASSIFICATION: This product has been classified on the preparation date specified at section 14 of this MSDS / SDS, for transportation in accordance with the requirements of part 2 of the Transportation of Dangerous Goods Regulations. If applicable, testing and/or published test data regarding the classification of this product are listed in the references at section 16 of this MSDS / SDS.

Section 15 – Regulatory Information

NOTE: THE PRODUCT LISTED ON THIS SDS HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS. THIS SDS CONTAINS ALL INFORMATION REQUIRED BY THOSE REGULATIONS.

Section 16 – Other Information

Preparation Date	August 31, 2015
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Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / SDS coordinator

As part of our commitment to the Canadian Association of Chemical Distributors (CACD) Responsible Distribution[®] initiative, ClearTech Industries Inc. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheet(s) to all affected employees, customers, and end-users. ClearTech will send any available supplementary handling, health, and safety information to you at your request.

If you have any questions or concerns please call our customer service center.

References:

- 1) CHEMINFO
- 2) eChemPortal
- 3) TOXNET
- 4) Transportation of Dangerous Goods Canada
- 5) HSDB
- 6) ECHA

ClearTech Industries Inc. - Locations

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