

## MATERIAL SAFETY DATA SHEET

**PRODUCT NAME : AQUAREUS ION EXCHANGE RESIN 200**

### 1. Product and Company Identification

Product name: Aquareus Ion Exchange Resin  
Synonyms: Weak acid cation exchange resin, Chelating acid cation exchange resin, Aquareus replacement resin  
Item Numbers: YLA600005

#### European Contact Details

Edwards, Manor Royal, Crawley  
West Sussex, RH10 9LW, England  
E-mail: info@edwardsvacuum.com

#### General enquiries

UK : +44 (0)1293 528844  
France : +(33) 1 47 98 24 01  
Germany : +(49) 6420-82-410  
Italy : +(39) 0248-4471

#### US Contact Details

Edwards, Three Highwood Drive, Suite 3-10E,  
Highwood Office Park, Tewksbury, MA 01876

#### General enquiries

+(1) 978-658-5410  
Toll Free: 1-800-848-9800

24 h Emergency telephone number:

Chemtrec: 1-800-424-9300

### 2. Hazards Identification

#### EMERGENCY OVERVIEW

This product may cause eye and skin irritation, but when properly handled according to good working and hygienic practices is not dangerous to human health.

Combustion products may include carbon oxides, ammonia and amines.

For short and long term exposure effects see Section 11 Toxicological data.

Eye Effects: May cause irritation.  
Skin Effects: May cause irritation (Skin absorption is unlikely due to the product's properties).  
Ingestion/Oral Effects: None anticipated during normal use of the product.  
Inhalation Effects: None anticipated during normal use of the product.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: None known.

NFPA Hazard codes		HMIS Hazard codes		Rating System
Health	0	Health	0	0 = No Hazard
Flammability	0	Flammability	0	1 = Slight Hazard
Instability	0	Reactivity	0	2 = Moderate Hazard
				3 = Serious Hazard
				4 = Severe Hazard

## MATERIAL SAFETY DATA SHEET

**PRODUCT NAME : AQUAREUS ION EXCHANGE RESIN 200**

### 3. Composition/Information on Ingredients

Ingredient	% Weight	CAS No	Hazard class*	Risk phrase*
Copolymer of acrylic acid with Divinylbenzene (Converted to the sodium form)	30 to 60	9052-45-3	Not applicable	R36
Water	40 to 70	7732-18-5	Not applicable	Not applicable

\*Hazard class & Risk phrase. These columns are only completed for ingredients which are classified as hazardous under EU Directive No 1272/2008 (as amended) and are present in sufficient concentration to make the overall substance hazardous. In all other situations, the column will be completed as "Not applicable".

### 4. First Aid Measures

Eyes: Flush with plenty of water for at least 5 minutes. If irritation persists, seek medical attention.

Skin: If irritation occurs, remove any particles and wash thoroughly with soap and water.

Ingestion/Oral: None required.

Inhalation: If irritation occurs from breathing vapours/dust, remove to fresh air. If thermal decomposition vapours have been inhaled, administer oxygen or artificial respiration if indicated and seek medical attention.

### 5. Fire Fighting Measures

Extinguishing Media: Carbon dioxide, dry chemical/powder, water spray.

Fire and Explosion Hazard: Combustion products may include carbon oxides, ammonia and amines.

Special Protective Equipment for Fire Fighters: Fire fighters should wear NIOSH approved pressure demand self-contained breathing apparatus (SCBA) and full protective gear.

For Flammability Properties - see Section 9.

### 6. Accidental Release Measures

Isolate the area of the spill. Wear appropriate protective equipment (See Section 8).  
Spilled material may cause floors to be slippery. Take care to avoid falls.  
Sweep up spilled material and transfer to suitable containers for recovery or disposal: see Section 13.

### 7. Handling and Storage

Handling: Practice reasonable care and caution. Metal equipment should be compatible with feed, regenerant, resin form, and effluent of that process.

Storage: Store in a cool, dry place, away from strong oxidisers. Keep containers sealed to prevent drying and loss of moisture.

## MATERIAL SAFETY DATA SHEET

### PRODUCT NAME : AQUAREUS ION EXCHANGE RESIN 200

**TSCA considerations** Every different salt or ionic form of an ion-exchange resin is a separate chemical. If you use an ion exchange resin for ion-exchange purposes and then remove the by-product resin from its vessel or container prior to recovery of the original or another form of the resin or of another chemical, the by-product resin must be listed on the TSCA Inventory (unless an exemption is applicable). It is the responsibility of the customer to ensure that such isolated, recycled by-product resins are in compliance with TSCA. Failure to comply could result in substantial civil or criminal penalties.

## 8. Exposure Controls/Personal Protection

### Exposure Limits:

Ingredient	ACGIH - TLV -	OSHA - PEL	Occupational Exposure Limits EH40 (UK)
Copolymer of acrylic acid with Divinylbenzene	Not applicable	Not applicable	Not applicable

### Personal Protection:

Engineering Measures:	No special ventilation is required under normal operating conditions. Ensure an eyewash facility is available.
Respiratory Protection:	No respiratory protection is required under normal operating conditions.
Hand/Skin Protection:	None.
Eye/Face Protection:	Wear splash goggles.
Hygiene Measures:	Practice good workplace hygiene. Do not eat or smoke when handling. Wash thoroughly after handling, before meals, breaks, and leaving the work area.
Other/General Protection:	None.

## 9. Physical and Chemical Properties

Appearance and Odour	White to light cream beads, may have amine odour	Boiling point	Not applicable	°C/°F
pH (as supplied)	Not known	Freezing Point	Not applicable	°C/°F
Solubility in Water	Insoluble	Auto Ignition	>500 / 932	°C/°F
Volatile Content by Volume	Not applicable	Flash Point	Not applicable	°C/°F
Specific Gravity	1.2			
Vapour Pressure (mbar)	Not applicable	Vapour Pressure (Torr)	Not applicable	

## MATERIAL SAFETY DATA SHEET

**PRODUCT NAME : AQUAREUS ION EXCHANGE RESIN 200**

### 10. Stability and Reactivity

Stability:	Stable under normal conditions of use.
Material/Conditions to Avoid:	Strong oxidizers. Temperatures above 204 °C/400 °F.
Hazardous Decomposition:	Combustion products may include carbon oxides, ammonia, amines, styrene and divinylbenzene.
Hazardous Polymerisation:	Will not occur.

### 11. Toxicological Information

For a comprehensive description for the various toxicological (health) effects which may arise if the user comes into contact with the substance or preparation, refer to Section 2 Hazards Identification.

#### Animal data:

LD50 value:	No data available.
LC50 value:	No data available.

#### Carcinogenicity:

No known carcinogenic effects.

### 12. Ecological Information

The material has low ecotoxicity because it is virtually insoluble in water.

### 13. Disposal Considerations

As supplied, the material is not classified as hazardous waste, and can be disposed of by landfill or the usual methods for plastics. Controlled incineration is also possible. All local and national regulations should be followed.

Processing, normal use, or contamination may change the disposal requirements for this material.

### 14. Transport Information

This product is not classified as dangerous under transport regulations.

PARAMETER	EUROPEAN	CANADIAN TDG	UNITED STATES DOT
Proper Shipping Name	Not applicable	Not applicable	Not applicable
Hazard Class	Not applicable	Not applicable	Not applicable
Identification Number	Not applicable	Not applicable	Not applicable
Shipping Label	Not applicable	Not applicable	Not applicable

## MATERIAL SAFETY DATA SHEET

**PRODUCT NAME : AQUAREUS ION EXCHANGE RESIN 200**

### 15. Regulatory Information

#### European Regulatory Information

This product has been classified in accordance with EU Regulation No 1272/2008 (as amended) on the Classification, Labelling and Packaging of Substances and Mixtures.

Classified as dangerous to supply: No.

Risk Phrases : R36 - Irritating to eyes.

Safety Phrases : S26-39 - Wear eye/face protection.

Symbols : Xi - Irritant.

#### United States Regulatory Information

All materials contained in this product are either listed on, or are exempt from, the U.S. Toxic Substances Control Act (TSCA) Inventory.

SARA TITLE III - SECTION 313 SUPPLIER NOTIFICATION:

This product does not contain toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 and 40 CFR Part 372.

California Proposition 65: This product does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.

OSHA Regulatory Status: This material is not classified as hazardous under OSHA regulations.

#### Canadian Regulatory Information

WHMIS Classification: Not controlled.

All ingredients in this product are included in the Canadian DSL.

## MATERIAL SAFETY DATA SHEET

**PRODUCT NAME : AQUAREUS ION EXCHANGE RESIN 200**

### 16. Other Information

This MSDS is compiled in accordance with ANSI Z400.1 and Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Sources of information for this data sheet:

- Resintech Inc Material Safety Data Sheet for Ion Exchange resins, revision date: 01.11.09.

### Glossary:

**ACGIH** - American Conference of Governmental Industrial Hygienists; **ANSI** - American National Standards Institute; **Canadian TDG** - Canadian Transportation of Dangerous Goods; **CAS** - Chemical Abstracts Service; **Chemtrec** - Chemical Transportation Emergency Center (US); **DSL** - Domestic Substances List; **EH40 (UK)** - HSE Guidance Note EH40 Occupational Exposure Limits; **EPCRA** - Emergency Planning and Community Right-to-Know Act; **EU** - European Union; **HMIS** - Hazardous Material Information Service; **LC** - Lethal Concentration; **LD** - Lethal Dose; **NFPA** - National Fire Protection Association; **NIOSH** - National Institute for Occupational Safety and Health; **OSHA** - Occupational Safety and Health Administration, US Department of Labour; **PEL** - Permissible Exposure Limit; **SARA (Title III)** - Superfund Amendments and Reauthorization Act; **SARA 313** - Superfund Amendments and Reauthorization Act, Section 313; **SCBA** - Self-Contained Breathing Apparatus; **TLV** - Threshold Limit Value; **TSCA** - Toxic Substances Control Act Public Law 94-469; **US DOT** - US Department of Transportation; **WHMIS** - Workplace Hazardous Materials Information System.

### Revisions:

Aug. 2010 - Data Sheet updated to reflect the latest supplier information.

---

Although the information and recommendations in this data sheet are to the best of our knowledge correct, it is recommended that you make your own determination of the material's suitability for your purpose before you use it. The information contained in this data sheet has been reproduced from the manufacturers data; the accuracy of this information is the responsibility of the manufacturer. Edwards accept no responsibility for damage of any nature resulting from the use of, or the reliance upon, this data sheet.