

# SAFETY DATA SHEET

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING (\*)

- 1.1 PRODUCT IDENTIFIER : Ion exchange resin in wet form  
PRODUCT NAME : **SEPABEADS EC-HA/S – EC-HA/M**
- 1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST  
Relevant identified uses : Enzyme immobilization  
Uses advised against : None
- 1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET  
MANUFACTURER / SUPPLIER : Resindion S.r.l.  
Address : Via Roma, 55 – 20082 Binasco (MI) - ITALY  
Telephone : +39.0290.0130.1  
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Emergency Phone : +39.0290.0130.1 (8:00 – 12:00 / 13:00 – 17:00)  
E-mail address : info@resindion.com

## SECTION 2. HAZARDS IDENTIFICATION (\*)

- 2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE  
2.1.1 Classification according to Regulation (EC) No. 1272/2008 (CLP/GHS)  
Classification : not classified

***This product does not meet the criteria for classification in any hazard class according to Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures.***

- 2.2 LABEL ELEMENTS  
Hazard pictogram(s) : not applicable  
Signal word : no signal word  
Hazard statement(s) : no known significant effects or critical hazards  
Precautionary statement(s) : not applicable  
Supplement hazard information : not applicable

### 2.3 OTHER HAZARDS

#### *Results of PBT and vPvB*

This product does not meet the PBT and vPvB criteria

#### *Other hazards which did not result in classification*

Material can cause irritation to eyes. Prolonged or repeated skin contact can cause slight irritation. Do not step on spilled resins because the resins are very slippery.

#### *Environmental risks*

Being non volatile and insoluble, there is no risk to the air and water compartment. Material expected stable in the ground. No biological degradation observed.

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## SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS (\*)

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### 3.2 MIXTURE

| Identification name   | CAS No.     | EINECS No.     | Weight % range |
|---|-------------|----------------|----------------|
| Crosslinked copolymer of methacrylate containing amino groups | 116010-49-2 | Not applicable | 35 – 45        |
| Water   | 7732-18-5   | 231-791-2      | 55 – 65        |

***Within the present knowledge of the supplier, this product does not contain any hazardous ingredient in quantities requiring reporting in this section, in accordance with EU or national regulations.***

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## SECTION 4. FIRST-AID MEASURES (\*)

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### 4.1 DESCRIPTION OF FIRST AID MEASURES

|                     |   |  |
|---------------------|---|--|
| <i>EYE CONTACT</i>  | : | Eye-flush with water for more than 15 minutes. If necessary, get medical attention.  |
| <i>SKIN CONTACT</i> | : | Wash with water and soap. In case of irritation, get medical attention.  |
| <i>INHALATION</i>   | : | Possibility of inhalation is low. Take the patient to fresh air; in case of difficulty in breathing, medical advice is required. |
| <i>INGESTION</i>    | : | Not specially necessary in case of small amount. In case of stomachache, get medical attention.                                  |

### 4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

See Section 11 for more detailed information on health effects.

### 4.3 INDICATIONS OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

See Section 11 for more detailed information on health effects.

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## SECTION 5. FIREFIGHTING MEASURES (\*)

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### 5.1 EXTINGUISHING MEDIA

|                                |   |  |
|--------------------------------|---|--|
| Suitable extinguishing media   | : | dry chemical, water spray, CO <sub>2</sub> |
| Unsuitable extinguishing media | : | none known                                 |

### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

|                                       |   |                                      |
|---------------------------------------|---|--------------------------------------|
| Hazards from the substance or mixture | : | No specific fire or explosion hazard |
| Hazardous combustion products         | : | CO <sub>x</sub> , NO <sub>x</sub>    |

### 5.3 ADVICE FOR FIREFIGHTERS

|   |   |  |
|---|---|--|
| Special protective equipment for firefighters | : | Wear self-contained breathing apparatus and fully protective gear.   |
| Special firefighting procedures               | : | Keep unnecessary people away. In the event of fire, do not breathe fumes. If possible without risk, move containers from fire area. Prevent runoff from fire control or dilution from entering streams, sewers or drinking water supply. |

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## SECTION 6. ACCIDENTAL RELEASE MEASURES (\*)

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### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

#### 6.1.1 For not-directly involved

personnel : Resins may be slippery. Do not step on the spilled resins. Avoid contact with skin and eyes. Evacuate non-essential personnel. Provide adequate ventilation.

#### 6.1.2 For directly involved

personnel : Wear appropriate personal protective equipment (see Section 8)

6.2 ENVIRONMENTAL PRECAUTIONS : Prevent spilled resins from entering sewers, watercourses or drinking water supply.

### 6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

#### 6.3.1 Advices on how to contain

a spill : cover the drains

#### 6.3.2 Advices on how to clean up

a spill : Vacuum or sweep up and place in designated, labelled and closed waste containers; have them disposed of by experts.

#### 6.3.3 Other information

: not available

6.4 REFERENCE TO OTHER SECTIONS : See Section 1 for emergency contact information  
See Section 8 for information on appropriate personal protective equipment  
See Section 13 for additional waste treatment information

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## SECTION 7. HANDLING & STORAGE (\*)

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7.1 PRECAUTIONS FOR SAFE HANDLING : Wear safety glasses and protective gloves to avoid eye or skin contact (see Section 8). Resin handling should be done in well-ventilated, upwind areas. Eye-washing facilities must be set in the working area. Do not step on spilled resins because the resins are very slippery. Avoid high temperature, sparks and flames. Also avoid contact or mixture with oxidizing substances. Keep in the original containers and keep them tightly closed when not in use. Do not eat, drink and smoke in the areas where the material is handled. Do not ingest. Observe good personal hygiene measures such as washing the hands after handling the material and before eating, drinking and/or smoking.

### 7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Store in accordance with local regulations. Store in their original containers in a cool, dry, well-ventilated location at room temperature (2 ÷ 30 °C).

Avoid freezing ( $\leq 0$  °C) and dehydration ( $\geq 40$ °C). Avoid sunlight exposure. Keep the containers tightly closed. Keep away from oxidizing substances and separated from foodstuffs. Open containers should be resealed and kept upright to prevent spills. Prevent by appropriate containment the release of the mixture to the environment, keeping away from drains.

|                                       |   |                       |
|---------------------------------------|---|-----------------------|
| 7.3 SPECIFIC END USE(S)               | : | Enzyme immobilization |
| Recommendations                       | : | not available         |
| Industrial sector specific solutions: | : | not available         |

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## SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION (\*)

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### 8.1 CONTROL PARAMETERS

|                             |   |           |        |                 |
|-----------------------------|---|-----------|--------|-----------------|
| OCCUPATIONAL EXPOSURE LIMIT | : | ACGIH TLV | (TWA)  | not established |
|                             |   |           | (STEL) | not established |

### 8.2 EXPOSURE CONTROLS :

8.2.1. APPROPRIATE ENGINEERING CONTROLS: If resin handling is made in-house, general and/or local exhaust ventilation is preferred.

### 8.2.2. PERSONAL PROTECTION EQUIPMENT

8.2.2.1 Eye and face protection : Recommended: safety glasses with side shields

#### 8.2.2.2 Skin protection

Hand protection : Chemical resistant protective rubber gloves in accordance with the appropriate CEN standard should be worn any time a chemical is handled to prevent skin contact

Other skin protection : Wear appropriate clothing to prevent repeated or prolonged skin contact, selected in accordance to the task being performed

8.2.2.3 Respiratory protection : normally not needed.

Should a risk assessment indicate that it is necessary, use a properly fitted air-purifying or air-fed respirator complying with the appropriate CEN standard.

8.2.2.4 Thermal hazards : none known

8.2.2.5 Hygiene measures : Ensure that eye-washing facilities are set in the working area. Handle the material in accordance with good industrial hygiene and safety practices. Observe good personal hygiene measures such as washing the hands after the handling the material and before eating, drinking and/or smoking. Wash clothing and protective equipment before reusing to remove contaminants.

### 8.2.3 ENVIRONMENTAL EXPOSURE

CONTROLS : Prevent by appropriate containment the release of the mixture to the environment, keeping away from drains.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES (\*)

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### 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

|   |   |                              |
|---|---|------------------------------|
| Appearance                              | : | white opaque spherical beads |
| Odour                                   | : | odourless                    |
| Odour threshold                         | : | not available                |
| pH                                      | : | not applicable               |
| Melting point / freezing point          | : | not applicable               |
| Initial boiling point and boiling range | : | not applicable               |
| Flash point                             | : | not applicable               |
| Evaporation rate                        | : | not applicable               |
| Flammability (solid, gas)               | : | not applicable               |
| Upper/lower flammability                | : | not available                |
| Explosive limits                        | : | not applicable               |

|  |   |   |
|--|---|---|
| Vapour pressure                            | : | none                                    |
| Vapour density                             | : | none                                    |
| Relative density                           | : | 1.1 g/ml                                |
| Solubility                                 | : | insoluble in water and organic solvents |
| Partition coefficient<br>(n-octanol/water) | : | not applicable                          |
| Auto-ignition temperature                  | : | not applicable                          |
| Decomposition temperature                  | : | not available                           |
| Viscosity                                  | : | not available                           |
| Explosive properties                       | : | not applicable                          |
| Oxidizing properties                       | : | not applicable                          |

9.2 OTHER INFORMATION : No additional information

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## SECTION 10. STABILITY AND REACTIVITY (\*)

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|  |   |  |
|--|---|--|
| 10.1 REACTIVITY  | : | the product is stable and not reactive under normal conditions of use, storage and transport   |
| 10.2 CHEMICAL STABILITY                                | : | chemically stable under normal conditions of use, under storage and transport at ambient temperatures  |
| 10.3 POSSIBILITY OF HAZARDOUS REACTIONS                | : | No hazardous reaction will occur under normal conditions of use and storage  |
| 10.4 CONDITIONS TO AVOID                               | : | drying ( $\geq 40^{\circ}\text{C}$ ) and freezing ( $\leq 0^{\circ}\text{C}$ ). Avoid high temperature, sparks and flames and sunlight exposure. |
| 10.5 INCOMPATIBLE MATERIALS                            | : | strong oxidizing substances such as nitric acid, that may cause hazardous reactions  |
| 10.6 HAZARDOUS DECOMPOSITION PRODUCTS (except burning) | : | no hazardous decomposition product will be produced under normal conditions of use, storage and transport  |

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## SECTION 11. TOXICOLOGICAL INFORMATION (\*)

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### 11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

#### 11.1.2 MIXTURE

|                                    |   |   |
|------------------------------------|---|---|
| Acute toxicity                     | : | not classified  |
| Skin corrosion/irritation          | : | repeated and prolonged skin contact may cause mild transient irritation |
| Serious eye damage/irritation      | : | direct contact may cause mild eye irritation                            |
| Respiratory or skin sensitization: | : | not classified  |
| Germ cell mutagenicity             | : | not classified  |
| Carcinogenicity                    | : | not classified  |
| Reproductive toxicity              | : | not classified  |
| STOT – single exposure             | : | not classified  |
| STOT – repeated exposure           | : | not classified  |
| Aspiration hazard                  | : | not classified  |

#### 11.1.5 INFORMATION ON LIKELY ROUTES OF EXPOSURE

|              |   |   |
|--------------|---|---|
| Ingestion    | : | May cause discomfort if swallowed                               |
| Inhalation   | : | Inhalation of dust might cause transient respiratory irritation |
| Skin contact | : | May cause mild transient irritation                             |
| Eye contact  | : | Direct contact may cause eye irritation                         |

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## SECTION 12. ECOLOGICAL INFORMATION (\*)

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|                                     |   |  |
|-------------------------------------|---|--|
| 12.1 TOXICITY                       | : | The product presents little or no hazard to the ecosystem. Prevent spilled resins from entering sewers, watercourses or drinking water supply. |
| 12.2 PERSISTENCE AND DEGRADABILITY: |   | no information available   |
| 12.3 BIOACCUMULATIVE POTENTIAL      | : | no information available   |
| 12.4 MOBILITY IN SOIL               | : | Virtually insoluble in water. The product is not volatile  |
| 12.5 RESULTS OF PBT AND vPvB        | : | This product does not meet the PBT and vPvB criteria   |
| 12.6 OTHER ADVERSE EFFECTS          | : | no information available   |

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## SECTION 13. DISPOSAL CONSIDERATIONS (\*)

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### 13.1 WASTE TREATMENT METHODS

#### PRODUCT

|                     |   |   |
|---------------------|---|---|
| Methods of disposal | : | Avoid spilled resins from entering sewers, watercourses or drinking water supply.<br>Both product residues and uncleaned empty containers should be sealed, labelled and disposed of by either incineration or landfill, or recycled under the conditions which meet local, regional and national laws and regulations relating to waste in each country. For disposal within the EC, it is up to the user to assign to the waste the proper code according to the European List of Wastes (LoW), on the basis of the application for which the product was used. |
| Hazardous waste     | : | within the present knowledge of the supplier, the product is not classified as hazardous waste, as defined by the EU Directive 2008/98/EC.  |

#### PACKAGING

|                     |   |  |
|---------------------|---|--|
| Methods of disposal | : | Waste packaging should be recycled wherever possible. Incineration or landfill should only be considered when recycling is not feasible.   |
| Special precautions | : | Both the product and its containers must be disposed of in a safe way and according to the relevant national and local regulations.<br>Empty containers and liners might retain some product residues: avoid spilled resins from entering sewers, watercourses or drinking water supply. |

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## SECTION 14. TRANSPORT INFORMATION (\*)

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Temperature during transportation must be kept more than 0 °C. Avoid freezing ( $\leq 0^{\circ}\text{C}$ ) and dehydration ( $\geq 40^{\circ}\text{C}$ ). Avoid high temperature, sparks and flames. Keep away from oxidizing substances. Keep separated from foodstuffs.

Not classified as dangerous cargo.

In addition, please follow all regulations in your country

### FURTHER INFORMATION

|     |   |                |
|-----|---|----------------|
| ADR | : | not applicable |
| RID | : | not applicable |

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|   |   |                |
|---|---|----------------|
| ADN   | : | not applicable |
| IATA  | : | not applicable |
| IMDG  | : | not applicable |
| 14.1 UN NO.   | : | not applicable |
| 14.2 UN PROPER SHIPPING NAME  | : | not applicable |
| 14.3 TRANSPORT HAZARD CLASS(es)   | : | not applicable |
| 14.4 PACKING GROUP  | : | not applicable |
| 14.5 ENVIRONMENTAL HAZARDS  | : | none           |
| 14.6 SPECIAL PRECAUTIONS FOR USER:  | : | not regulated  |
| 14.7 TRANSPORT IN BULK ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE | : | not available  |

## SECTION 15. REGULATORY INFORMATION (\*)

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

### EU REGULATIONS:

- **EU Regulation (EC) No. 1907/2006 (REACH)**  
**Annex XIV – List of substances subject to authorization**  
Not listed  
**Substances of very high concern (SVHC)**  
Not listed  
**Annex XVII – Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles**  
Not applicable
- **EU Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer**  
Not applicable
- **EU Regulation (EC) No. 850/2004 on persistent organic pollutants**  
Not applicable
- **EU Regulation (EC) No. 649/2012 concerning the export and import of dangerous chemicals**  
Not applicable

### **Other Regulations**

This product does not require a label according to the EU Regulations 1907/2006/EC, 1272/2008/EC

### **National Regulations**

Follow national regulations for work with chemical substances.

15.2 CHEMICAL SAFETY ASSESSMENT : No Chemical Safety Assessment has been carried out for this mixture by the supplier

## SECTION 16. OTHER INFORMATION (\*)

### HISTORY

|                        |   |            |
|------------------------|---|------------|
| Date of issue          | : | 04/06/2015 |
| Revision n°            | : | 4          |
| Date of previous issue | : | 05/02/2015 |

(\*) This symbol identifies the revised sections

ABBREVIATIONS AND ACRONYMS : ACGIH = American Conference of Governmental Industrial



## Hygienists

ADN = European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ADR = European Agreement concerning the International Carriage of Dangerous Goods by Road

CAS = Chemical Abstract Service number

CEN = European Committee for Standardisation

CLP = Classification, Labelling and Packaging Regulation (Regulation EC No. 1272/2008)

CMR = Carcinogen, Mutagen, or Reproductive Toxicant

ECHA = European Chemical Agency

EINCES = European Inventory of Existing Commercial Substances

GHS = Globally Harmonised system

IATA = International Air Transport Association

IBC code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IMDG = International Maritime Dangerous Goods

PBT = Persistent, Bioaccumulative and Toxic

STEL = short-term exposure limit

STOT = Specific target organ toxicity

TLV = Threshold Limit Value

TWA = time-weighted average

vPvB = Very Persistent and Very Bioaccumulative

REFERENCES : ECHA Guidance on the compilation of safety data sheets – Version 2.1 February 2014 and Regulation (EU) No. 830/2015.

CLASSIFICATION AND PROCEDURE USED TO DERIVE THE CLASSIFICATION FOR MIXTURES ACCORDING TO REGULATION (EC) 1272/2008 (CLP) : not classified

RELEVANT H-PHRASES AND/OR P-STATEMENTS DEFINITIONS : No EU Risk H-Phrases and/or P-Statements were identified for this product

FURTHER INFORMATION : This -SDS was prepared in compliance with Regulations (EC) No. 1907/2006/EC, 1272/2008/EC and Regulations (EU) No. 286/2011, 830/2015.  
This product complies in its composition with the EC Resolution RESAP (2004) 3.  
This mixture is exempted from Registration according to the provisions of Title II and VI as indicated in Article 2(9) of REACH.

**Disclaimer:** *Judgements as to the suitability of information herein are the purchaser's responsibility. Although reasonable care has been taken in the preparation of such information, Resindion extends no warranties, makes no representations, and assumes no responsibility as to the accuracy or suitability of such information for application to the purchaser's intended purpose or for consequences of its use.*