



# Material Safety Data Sheet

ROHM AND HAAS KOREA CO., LTD.

**Product name:** AMBERLITE™ IR120 H Ion Exchange Resin

**Issue Date:** 2015.12.28

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ROHM AND HAAS KOREA CO., LTD. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** AMBERLITE™ IR120 H Ion Exchange Resin

**Recommended use of the chemical and restrictions on use**

**Identified uses:** Ion exchange and/or Adsorption process

### COMPANY IDENTIFICATION

ROHM AND HAAS KOREA CO., LTD.

A Dow Chemical Group Company

412 TEHERAN-RO

(DAECHI-DONG) GANGNAM-GU

SEOUL TEUGBYEOLSI 06193

SOUTH KOREA

**Customer Information Number:**

82-(0)2-3490-0700

SDSQuestion@dow.com

### EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** 080-369-2436

**Local Emergency Contact:** 080-369-2436

## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Serious eye damage/eye irritation - Category 1

### Label elements

**Hazard pictograms**



**Signal word:** DANGER!

**Hazards**

H318 Causes serious eye damage.

**Precautionary statements****Prevention**

P280 Wear eye protection/ face protection.

**Response**

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 or doctor/ physician.

**Other hazards**

No data available

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

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This product is a mixture.

| Component                                                                     | Common Name       | CASRN      | Concentration | KECI Number |
|-------------------------------------------------------------------------------|-------------------|------------|---------------|-------------|
| Styrene, Divinylbenzene and Ethylstyrene Copolymer, Sulfonated, Hydrogen Form | No data available | 69011-20-7 | 45.0 - 55.0 % | KE-10326    |
| Water                                                                         | DIHYDROGEN OXIDE  | 7732-18-5  | 50.0 - 60.0 % | KE-35400    |

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**4. FIRST AID MEASURES**

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**Description of first aid measures**

**Inhalation:** Move to fresh air.

**Skin contact:** Wash off with soap and water. If skin irritation persists, call a physician.

**Eye contact:** Immediately flush the eye with plenty of water for at least 15 minutes, holding the eye open. Get prompt medical attention.

**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.

**Indication of any immediate medical attention and special treatment needed**

**Notes to physician:** Treatment should be directed at preventing absorption, administering to symptoms (if they occur), and providing supportive therapy.

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## 5. FIREFIGHTING MEASURES

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**Suitable extinguishing media:** Water spray Carbon dioxide (CO2) Foam Dry chemical

**Unsuitable extinguishing media:** No data available

**Special hazards arising from the substance or mixture**

**Hazardous combustion products:** No data available

**Unusual Fire and Explosion Hazards:** Toxic fumes are generated when material is exposed to fire or fire conditions. Cool closed containers exposed to fire with water spray.

**Advice for firefighters**

**Fire Fighting Procedures:** Remain upwind. Avoid breathing smoke.

**Special protective equipment for firefighters:** In the event of fire, wear self-contained breathing apparatus.

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## 6. ACCIDENTAL RELEASE MEASURES

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**Personal precautions, protective equipment and emergency procedures:** Appropriate protective equipment must be worn when handling a spill of this material. See SECTION 8, Exposure Controls/Personal Protection, for recommendations. If exposed to material during clean-up operations, see SECTION 4, First Aid Measures, for actions to follow.

**Environmental precautions:** WARNING: KEEP SPILLS OF PRODUCT AS SUPPLIED OUT OF MUNICIPAL SEWERS AND OPEN BODIES OF WATER. DO NOT DISCHARGE CLEANING RUNOFFS DIRECTLY TO OPEN BODIES OF WATER. Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

**Methods and materials for containment and cleaning up:** Keep spectators away. Floor may be slippery; use care to avoid falling. Transfer spilled material to suitable containers for recovery or disposal.

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## 7. HANDLING AND STORAGE

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**Precautions for safe handling:** Avoid repeated freeze-thaw cycles; beads may fracture. If frozen, thaw at room temperature. Avoid contact with skin, eyes and clothing. Corrosive to eyes See SECTION 8, Exposure Controls/Personal Protection, prior to handling.

**Conditions for safe storage:** Keep from freezing. Keep in a dry, cool place. Keep container tightly closed.

**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.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control parameters

Exposure limits are listed below, if they exist.

Exposure limits have not been established for those substances listed in the composition, if any have been disclosed.

### Exposure controls

**Engineering controls:** None required under normal operating conditions.

**Protective measures:** Facilities storing or utilizing this material should be equipped with an eyewash facility.

### Individual protection measures

**Eye/face protection:** Chemical resistant goggles must be worn. Eye protection worn must be compatible with respiratory protection system employed.

#### Skin protection

**Hand protection:** Cotton or canvas gloves.

Cotton or canvas gloves.

**Respiratory protection:** No personal respiratory protective equipment normally required.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

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### Appearance

|                                        |                          |
|----------------------------------------|--------------------------|
| Physical state                         | Gel-type beads           |
| Color                                  | amber clear              |
| Odor                                   | Odorless                 |
| Odor Threshold                         | No data available        |
| pH                                     | 3.0 - 5.5 Aqueous slurry |
| Melting point/range                    | No data available        |
| Freezing point                         | No data available        |
| Boiling point (760 mmHg)               | 100.00 °C Water          |
| Flash point                            | No data available        |
| Evaporation Rate (Butyl Acetate = 1)   | <1.00 Water              |
| Flammability (solid, gas)              | No data available        |
| Lower explosion limit                  | Not Applicable           |
| Upper explosion limit                  | Not Applicable           |
| Vapor Pressure                         | 22 hPa at 20 °C          |
| Relative Vapor Density (air = 1)       | <1.0000 Water            |
| Relative Density (water = 1)           | 0.8000                   |
| Water solubility                       | practically insoluble    |
| Partition coefficient: n-octanol/water | No data available        |
| Auto-ignition temperature              | 500.00 °C estimated      |
| Decomposition temperature              | No data available        |
| Dynamic Viscosity                      | Not Applicable           |

|                      |                   |
|----------------------|-------------------|
| Kinematic Viscosity  | No data available |
| Explosive properties | No data available |
| Oxidizing properties | No data available |
| Molecular weight     | No data available |
| Percent volatility   | 51.00 - 56.00 %   |

NOTE: The physical data presented above are typical values and should not be construed as a specification.

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## 10. STABILITY AND REACTIVITY

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**Reactivity:** No data available

**Chemical stability:** No data available

**Possibility of hazardous reactions:** Stable under normal conditions.  
Product will not undergo polymerization.

**Conditions to avoid:** No data available

**Incompatible materials:** Avoid contact with the following: Strong Oxidizers

**Hazardous decomposition products:** Thermal decomposition may yield the following: monomer vapors

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## 11. TOXICOLOGICAL INFORMATION

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*Toxicological information appears in this section when such data is available.*

### Information on the likely route of exposure

Please refer to the information below.

#### Acute toxicity

##### Acute oral toxicity

Product test data not available. Refer to component data.

##### Acute dermal toxicity

Product test data not available. Refer to component data.

##### Acute inhalation toxicity

Product test data not available. Refer to component data.

### Skin corrosion/irritation

Product test data not available. Refer to component data.

### Serious eye damage/eye irritation

Product test data not available. Refer to component data.

**Skin and Respiratory Sensitization**

Product test data not available. Refer to component data.

**Specific Target Organ Systemic Toxicity (Single Exposure)**

Product test data not available. Refer to component data.

**Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Product test data not available. Refer to component data.

**Carcinogenicity**

Product test data not available. Refer to component data.

**Teratogenicity**

Product test data not available. Refer to component data.

**Reproductive toxicity**

Product test data not available. Refer to component data.

**Mutagenicity**

Product test data not available. Refer to component data.

**Aspiration Hazard**

Product test data not available. Refer to component data.

**COMPONENTS INFLUENCING TOXICOLOGY:**

**Styrene, Divinylbenzene and Ethylstyrene Copolymer, Sulfonated, Hydrogen Form**

**Acute oral toxicity**

Typical for this family of materials. LD50, Rat, > 5,000 mg/kg

**Acute dermal toxicity**

The dermal LD50 has not been determined.

**Skin corrosion/irritation**

Brief contact is essentially nonirritating to skin.

**Serious eye damage/eye irritation**

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur.

**Sensitization**

For skin sensitization:

No relevant data found.

For respiratory sensitization:

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**

Reverse mutation test using bacteria: Non-mutagenic with and without metabolic activation

**Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

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## 12. ECOLOGICAL INFORMATION

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*Ecotoxicological information appears in this section when such data is available.*

**General Information**

There is no data available for this product.

**Ecotoxicity****Styrene, Divinylbenzene and Ethylstyrene Copolymer, Sulfonated, 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.

**Persistence and degradability****Styrene, Divinylbenzene and Ethylstyrene Copolymer, Sulfonated, Hydrogen Form**

**Biodegradability:** No appreciable biodegradation is expected.

**Bioaccumulative potential****Styrene, Divinylbenzene and Ethylstyrene Copolymer, Sulfonated, Hydrogen Form**

**Bioaccumulation:** No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).

**Mobility in Soil****Styrene, Divinylbenzene and Ethylstyrene Copolymer, Sulfonated, 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.

**Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**Other adverse effects**

**Styrene, Divinylbenzene and Ethylstyrene Copolymer, Sulfonated, Hydrogen Form**

This substance is not in Annex I of Regulation (EC) No 1005/2009 on substances that deplete the ozone layer.

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**13. DISPOSAL CONSIDERATIONS**

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**Disposal methods:** Can be landfilled or incinerated, when in compliance with local regulations.

**Disposal precautions:** Customers are advised to check their local legislation governing the disposal of waste materials.

**Contaminated packaging:** Empty containers should be taken to local recyclers for disposal. Refer to applicable federal, state, and local regulations.

This product when disposed of in its unused and uncontaminated state should be treated as a hazardous waste.

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**14. TRANSPORT INFORMATION**

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**Classification for ROAD and Rail transport:**

|                              |                             |
|------------------------------|-----------------------------|
| UN number                    | Not applicable              |
| Proper shipping name         | Not regulated for transport |
| Class                        | Not applicable              |
| Packing group                | Not applicable              |
| Environmental hazards        | Not applicable              |
| Special precautions for user | No data available.          |

**Classification for SEA transport (IMO-IMDG):**

|                                                                                      |                                                        |
|--------------------------------------------------------------------------------------|--------------------------------------------------------|
| UN number                                                                            | Not applicable                                         |
| Proper shipping name                                                                 | Not regulated for transport                            |
| Class                                                                                | Not applicable                                         |
| Packing group                                                                        | Not applicable                                         |
| Marine pollutant                                                                     | Not applicable                                         |
| Special precautions for user                                                         | No data available.                                     |
| 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 |

**Classification for AIR transport (IATA/ICAO):**

|                              |                             |
|------------------------------|-----------------------------|
| UN number                    | Not applicable              |
| Proper shipping name         | Not regulated for transport |
| Class                        | Not applicable              |
| Packing group                | Not applicable              |
| 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.

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## **15. REGULATORY INFORMATION**

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### **Industrial Safety and Health Act**

The product is classified as hazardous by ISHL in Korea.

### **Regulation under the Chemical Control Act**

Not regulated by Chemical Control Act

### **Dangerous Substances Safety Management Act**

Not regulated by Dangerous Substance Safety Management Act

### **Waste Management Law**

For all countries the disposal methods must be in compliance with national and provincial laws and any municipal or local by laws.

### **Other requirements in domestic and other countries**

#### **Korea. Korean Existing Chemicals Inventory (KECI) (KECI):**

All intentional components are listed on the inventory, are exempt, or are supplier certified.

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## **16. OTHER INFORMATION**

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### **Revision**

Identification Number: 101082688 / 1836 / Issue Date: 2015.12.28 / Version: 2.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

**Date of first issue:** 06/04/2011

### **Information Source and References**

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

ROHM AND HAAS KOREA CO., LTD. urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The

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