

SAFETY DATA SHEET

SPECIALTY ELECTRONIC MATERIALS SWITZERLAND GMBH

Safety Data Sheet according to Reg. (EU) No 2015/830

Product name: AMBERLITE™ IRA70RF ION EXCHANGE RESIN

Revision Date: 15.10.2018 Version: 2.1 Print Date: 03.05.2021

SPECIALTY ELECTRONIC MATERIALS SWITZERLAND GMBH 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.

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier Product name: AMBERLITE™ IRA70RF ION EXCHANGE RESIN

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 SPECIALTY ELECTRONIC MATERIALS SWITZERLAND GMBH GROSSMATTE 4 6014 LUZERN SWITZERLAND

Customer Information Number:

800-3876-6838 SDSQuestion-EU@dupont.com

1.4 EMERGENCY TELEPHONE NUMBER 24-Hour Emergency Contact: +(41)- 435082011 **Local Emergency Contact:** +(44)-870-8200418

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008: Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008:

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

2.3 Other hazards

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical nature: Ion exchange and/or Adsorption process 3.2 Mixtures

This product is a mixture.

This product does not contain, in concentrations equal to or greater than those laid down by the Regulation (EC) No. 2015/830, any substances presenting a health or environmental hazard nor any substances for which there are Community workplace exposure limits in place.

SECTION 4: FIRST AID MEASURES

4.1 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: Rinse with plenty of water. If eye irritation persists, consult a specialist.

Ingestion: Drink two glasses of water.

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 of any immediate medical attention and special treatment needed Notes to physician: Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

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

Unsuitable extinguishing media: No data available

5.2 Special hazards arising from the substance or mixture Hazardous combustion products: No data available

Unusual Fire and Explosion Hazards: Cool closed containers exposed to fire with water spray. Exposure to decomposition products may be a hazard to health. Dusts at sufficient concentrations can form explosive mixtures with air.

5.3 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.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 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.

6.2 Environmental precautions: No special environmental precautions required.

6.3 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.

6.4 Reference to other sections: References to other sections, if applicable, have been provided in the previous sub-sections.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling: NOTE: This product as supplied is a whole bead resin and may produce slight eye irritation. However, the ground form of this resin should be treated as a severe eye irritant. Worker exposure to ground resins can be controlled with local exhaust ventilation at the point of dust generation, or use of suitable personal protective equipment (dust/mist air-purifying respirator and safety goggles). Avoid repeated freeze-thaw cycles; beads may fracture. If frozen, thaw at room temperature. Properly designed equipment is vital if these resins are to be used in conjunction with strong oxidizing agents such as nitric acid to prevent a rapid build-up of pressure and possible explosion. Consult a source knowledgeable in the handling of these materials before proceeding.

7.2 Conditions for safe storage, including any incompatibilities: Keep from freezing.

7.3 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.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters Exposure limits are listed below, if they exist.

8.2 Exposure controls Engineering controls: none

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

Individual protection measures

Eye/face protection: Safety glasses Skin protection Hand protection: Wear suitable gloves.

Respiratory protection: No personal respiratory protective equipment normally required.

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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties Appearance		
Physical state	Beads	
Color	white	
Odor	Odorless	
Odor Threshold	No data available	
рН	7.0 - 9.0 Aqueous slurry	
Melting point/range	No data available	
Freezing point	No data available	
Boiling point (760 mmHg)	100.00 °C	
Flash point	Not applicable	
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 20.00 °C	
Relative Vapor Density (air = 1)	No data available	
Relative Density (water = 1)	No data available	
Water solubility	insoluble	
Partition coefficient: n- octanol/water	No data available	
Auto-ignition temperature	427.00 °C	
Decomposition temperature	< 150.00 °C	
Dynamic Viscosity	Not applicable	
Kinematic Viscosity	No data available	
Explosive properties	No data available	
Oxidizing properties	No data available	
9.2 Other information		
Molecular weight	No data available	

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

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity: No data available

10.2 Chemical stability: No data available

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

10.4 Conditions to avoid: No data available

10.5 Incompatible materials: Avoid contact with the following: Strong Oxidizers Nitric acid

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

SECTION 11: TOXICOLOGICAL INFORMATION

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

11.1 Information on toxicological effects Acute toxicity Acute oral toxicity LD50, Rat, > 5,000 mg/kg

> Acute dermal toxicity LD50, Rabbit, > 5,000 mg/kg

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.

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.

Additional information

No data are available for this material. The information shown is based on profiles of compositionally similar materials.

SECTION 12: ECOLOGICAL INFORMATION

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

No data available.

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 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.

12.6 Other adverse effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Unused material may be incinerated or landfilled in facilities meeting local, state, and federal regulations.

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.

SECTION 14: TRANSPORT INFORMATION

Classification for ROAD and Rail transport (ADR/RID):

14.1	UN number	Not applicable
14.2	UN proper shipping name	Not regulated for transport
14.3	Transport hazard class(es)	Not applicable
14.4	Packing group	Not applicable
14.5	Environmental hazards	Not considered environmentally hazardous based on available data.
14.6	Special precautions for user	No data available.
Class	sification for SEA transport (IM	O-IMDG):
14.1	UN number	Not applicable
14.2	UN proper shipping name	Not regulated for transport
14.3	Transport hazard class(es)	Not applicable
14.4	Packing group	Not applicable
14.5	Environmental hazards	Not considered as 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
Class	sification for AIR transport (IAT	A/ICAO):
14.1	UN number	Not applicable
14.2	UN proper shipping name	Not regulated for transport
14.3	Transport hazard class(es)	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.

SECTION 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 pre-registered, are exempt from registration 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 pre-registered, registered, or are exempt from registration 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

SECTION 16: OTHER INFORMATION

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) No 1272/2008

This product is not classified as dangerous according to EC criteria.

Revision

Identification Number: 101126618 / A715 / Issue Date: 15.10.2018 / Version: 2.1 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

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.

SPECIALTY ELECTRONIC MATERIALS SWITZERLAND GMBH 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 information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDS sobtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.